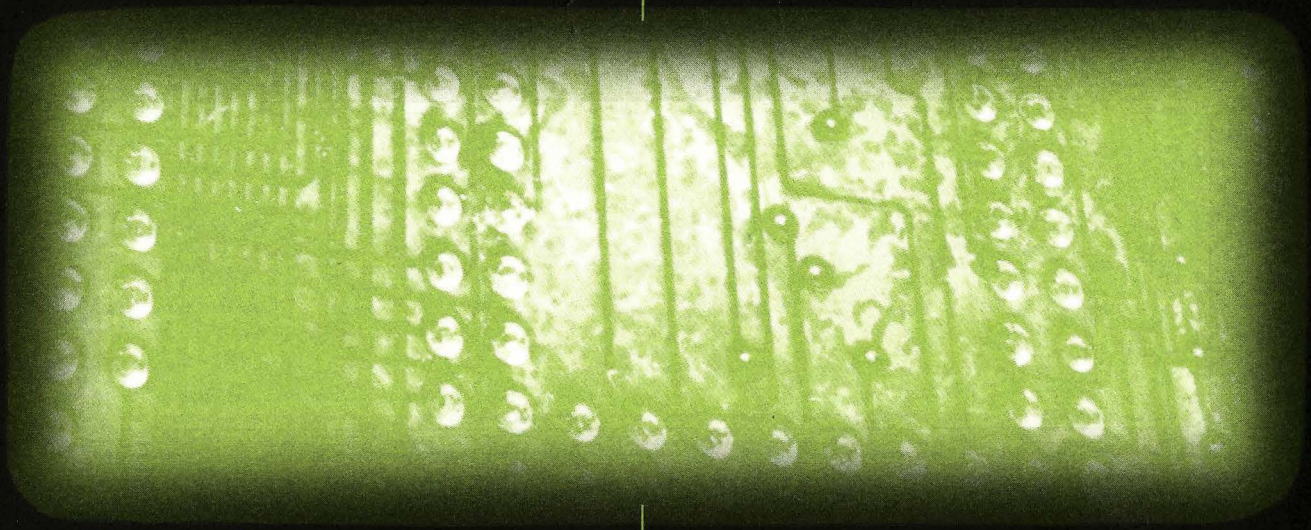
Cincinnati State

# TECHNOLOGY



# for your career

BUSINESS TECHNOLOGIES

ENGINEERING TECHNOLOGIES

HEALTH TECHNOLOGIES

HUMANITIES & SCIENCES

INFORMATION TECHNOLOGIES

**Catalog 2001-2002**

# 2001 - 2002 Calendar

**Early Fall 2001**

| | |
|---|---|
| Monday, September 3 - | Labor Day Observed - College Closed |
| Tuesday, September 4 - | Classes begin |
| Tuesday, September 4 – Monday, September 10 - | Instructor consent required to register for a course that has met |
| Monday, September 10 - | Last day to drop a course and receive a 100% refund of tuition |
| Tuesday, September 11 – Monday, September 17 - | Instructor and dean consent required to register for a course |
| Monday, September 17 - | Last day to drop a course and receive a 50% refund of tuition |
| | Last day to register or enter a course |
| | Last day to drop a course without a grade appearing on student's record |
| | Last day to declare an Audit in a course |
| Tuesday, September 18 - | First day to request a Withdrawal for a course |
| Monday, October 8 - | Columbus Day Observed - College Closed |
| Tuesday, October 23 - | Last day to Withdraw from a course |
| Tuesday, November 6 - | Classes end |

**Late Fall 2001**

| | |
|---|---|
| Monday, November 12 - | Veterans Day Observed - College Closed |
| Tuesday, November 13 - | Classes begin |
| Tuesday, November 13 – Monday, November 19 - | Instructor consent required to register for a course that has met |
| Monday, November 19 - | Last day to drop a course and receive a 100% refund of tuition |
| Tuesday, November 20 – Monday, November 26 - | Instructor and dean consent required to register for a course |
| Thursday, November 22 - | Thanksgiving Day Holiday Observed - College Closed |
| Friday, November 23-24 - | College Closed |
| Monday, November 26 - | Last day to drop a course and receive a 50% refund of tuition |
| | Last day to register or enter a course |
| | Last day to drop a course without a grade appearing on student's record |
| | Last day to declare an Audit in a course |
| Tuesday, November 27 - | First day to request a Withdrawal for a course |
| Monday, December 24 – Tuesday, January 1, 2002 - | Winter Break - College Closed |
| Friday, January 11 - | Last day to Withdraw from a course |
| Monday, January 14 - | Martin Luther King Jr. Holiday Observed - College Closed |
| Monday, January 28 - | Classes end |

**Winter 2002**

| | |
|---|---|
| Monday, February 4 - | Classes begin |
| Monday, February 4 – Friday, February 8 - | Instructor consent required to register for a course that has met |
| Friday, February 8 - | Last day to drop a course and receive a 100% refund of tuition |
| Monday, February 11 – Friday, February 15 - | Instructor and dean consent required to register for a course |
| Friday, February 15 - | Last day to drop a course and receive a 50% refund of tuition |
| | Last day to register or enter a course |
| | Last day to drop a course without a grade appearing on student's record |
| | Last day to declare an Audit in a course |
| Monday, February 18 - | Presidents' Day Holiday Observed - College Closed |
| Tuesday, February 19 - | First day to request a Withdrawal for a course |
| Monday, March 25 - | Last day to Withdraw from a course |
| Monday, April 8 - | Classes end |

**Spring 2002**

| | |
|---|---|
| Monday, April 15 - | Classes begin |
| Monday, April 15 – Friday, April 19 - | Instructor consent required to register for a course that has met |
| Friday, April 19 - | Last day to drop a course and receive a 100% refund of tuition |
| Monday, April 22 – Friday, April 26 - | Instructor and dean consent required to register for a course |
| Friday, April 26 - | Last day to drop a course and receive a 50% refund of tuition |
| | Last day to register or enter a course |
| | Last day to drop a course without a grade appearing on student's record |
| | Last day to declare an Audit in a course |
| Monday, April 29 - | First day to request a Withdrawal for a course |
| Monday, May 27 - | Memorial Day Holiday Observed - College Closed |
| Monday, June 3 - | Last day to Withdraw from a course |
| Monday, June 17 - | Classes end |

**Summer 2002**

| | |
|---|---|
| Monday, June 24 - | Classes begin |
| Monday, June 24 – Friday, June 28 - | Instructor consent required to register for a course that has met |
| Friday, June 28 - | Last day to drop a course and receive a 100% refund of tuition |
| Thursday, July 4 - | Independence Day Holiday Observed - College Closed |
| Monday, July 1 – Friday, July 5 - | Instructor and dean consent required to register for a course |
| Friday, July 5 - | Last day to drop a course and receive a 50% refund of tuition |
| | Last day to register or enter a course |
| | Last day to drop a course without a grade appearing on student's record |
| | Last day to declare an Audit in a course |
| Monday, July 8 - | First day to request a Withdrawal for a course |
| Monday, August 12 - | Last day to Withdraw from a course |
| Monday, August 26 - | Classes end |

**Early Fall 2002**

| | |
|---|---|
| Tuesday, September 3 - | Classes begin |

# 2001 - 2002
# Cincinnati State
# Technical and Community College
# Catalog

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Throughout this document, trademark names are used. Rather than placing a trademark symbol after every occurrence of a trademarked name, we used the names in an editorial fashion only, and to the benefit of the trademark owner, with no intention of infringement of the trademark. Where such designations appear in this document, they have been printed with initial caps.

Cincinnati State Technical and Community College does not discriminate on the basis of race, age, color, handicap, sexual orientation, national origin or gender in the admission of students or in any activity conducted by Cincinnati State.

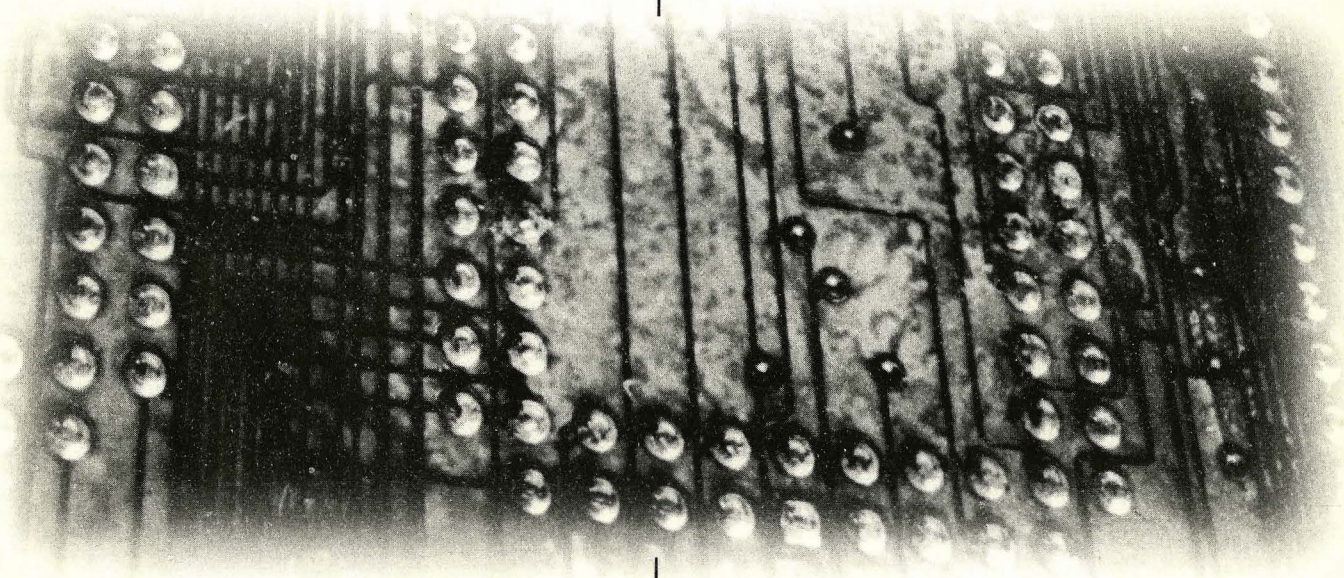
Cincinnati State Technical and Community College is an equal opportunity institution.

Parts or all of this catalog as well as any admissions materials will be provided on tape to disabled individuals upon request.


Cincinnati State
Technical and Community College
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Cincinnati, Ohio 45223
(513) 569-1500
Admission Office 861-7700
http://www.cinstate.cc.oh.us

Cincinnati State

# T E C H N O L O G Y



# for your career

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Transportation ..... Shawnda Hill
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Publishing Production Specialist ..... Elizabeth Bradley
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Analyst .....Craig Smith
.....Gary Story
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Application Development and Maintenance, Administrator
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Programmer/Analyst ..... Ray Dotson
..... Jianshen Jiang
..... Tracy Metsch
Applications Specialist ..... Paula Harnist
..... Phil Rettig
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Lead Lab Technician..... Sherry Hutton
..... Dorothy Mann
Lab Technician/Help Desk ..... Kirk Hamberg
.....Jeanne Musick
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Telecommunications ..... Sue Harley
..... Carolyn LaRose
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Production ..... Marcia Caulton
Scheduling ..... Russ Taylor
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..... Diane Stump
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Health Technologies ..... Athealia Bell
.....Sue Marcotte
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Veterans Coordinator and International Student Advisor
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Executive Assistant .....
Clerical Assistant ..... Cynthia Miller
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..... Jodie Rinehart
.....
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Testing Specialist ..... Kasey Hall
Testing Assistants ..... Joe Fowler
..... Carolyn Kelly

Student Financial Aid
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- Associate Director ..... Janice Lewis
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  - Executive Assistant ..... Brenda Beatty
  - Clerical Assistant (Data Entry) ..... Gail Hale
  - Clerical Assistant (Data Entry) ..... Ruth Kirtley
- Financial Aid Advisors ..... Ann Brinkley
  - ..... Cecily Goode
  - ..... Caprise Johnson
  - ..... Aiman Khayo
  - ..... Wesley Williams

Student Support Services
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  - Academic Coordinator ..... Thomas G. Brougham
  - Student Retention Specialist ..... Katrina Rugless
  - Clerical Assistant ..... Wanda Smith

Student Activities and Athletics
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- Assistant Director ..... Gary McDaniel
- Clerical Assistant ..... Ronna Rollins
- Men's Baseball Coach ..... Tom Chambers
- Men's Basketball Coach ..... John E. Hurley
- Women's Basketball Coach ..... Gary McDaniel
- Golf Coach ..... Scott Webb
- Men's Soccer Coach ..... Wil Cagle
- Women's Soccer Coach ..... Wil Cagle
- Volleyball Coach ..... Karen Dewar

Registrar ..... Janet Piccirillo
- Assistant Registrar for Transfer and Curriculum Services ..... Lois Von Handorf
- Registration Supervisor ..... Karen Magness-Lewe
- Clerical Assistant ..... Martin Richard
- Academic Records Specialist ..... Carol Dawn
- Academic Records Supervisor ..... Carolyn Robinson
- Enrollment Verifications Clerk ..... Tiffany Wilson
- Scheduling Supervisor ..... Sue Burns
- Scheduling Clerical .....

Supervisor of Public Safety ..... Dave Hart
- Security Officers ..... Shawn Dorsey
  - ..... Jimmy Trotter
  - ..... Mike Varin

**Finance**

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    - Cashier .....
      - ..... Diane Taft
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    - ..... Diana Stephenson
    - ..... Mike Thompson
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  - Accounts Payable Manager ..... Charlie Johnson
    - Accounts Payable Clerk ..... Melissa Scott
  - Payroll Manager ..... Jim Rettig
    - Payroll Assistant ..... Debbie Meadows
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  - Property Accountant ..... Herb Bom
  - Distribution/Graphics Supervisor ..... Jimmy Turner
  - Receiving Clerk ..... Deborah Carmen
  - Graphic Arts Supervisor ..... Linda Golightly
    - Reproduction Specialist ..... Cedric Vernon

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  - Maintenance Supervisor ..... Mike Cassidy
    - Maintenance Technicians ..... Gary Cole
      - ..... Dave Corso
      - ..... Barry Haering
    - Maintenance Helpers ..... James Burns
      - ..... Barry Haering
  - Supervisor of Environmental Services & Grounds ..... Ray Mirizzi
  - Acting Supervisor, Environmental Services ..... Tyrone Walton
    - Lead Environmental Services Technician .....
    - Environmental Services Technicians ..... Julie Caudill
      - ..... Andrew Coffee
      - ..... Mike Douglas
      - ..... Eugene DuBose
      - ..... Sherry Roper
      - ..... George Simmons
      - ..... Mark Smith
      - ..... Sam Streety
    - Groundskeepers ..... Dominic Iacobucci
      - ..... John Jarvis
      - ..... Dave Miller
  - Plant Engineer Supervisor ..... Gene Thrasher
    - Building Systems Technician ..... Joe Smith
    - HVAC Technicians ..... Denim Bledsoe
      - ..... Lewis Graham
  - Supervisor, Food Services ..... Walt Silka

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  - Serials and Periodicals ..... Thelma Barnes
  - Circulation ..... Cindy Sefton
  - Evening Circulation ..... Brad Conroy
- Technical Services Coordinator ..... Tracy Stivers
  - Acquisitions and Purchasing ..... Karen Merten
  - Technical Services Assistant ..... Kathleen Scardina
- Part-time References Librarians ..... Kathleen Epperson
  - ..... Rosemary LaBarge

**Business Technologies**

Dean ..... Dan Cayse
- Executive Assistant ..... Debby Nare
  - Clerical Assistant ..... Traci Sheppard
- Assistant Dean .....
- Assistant Dean ..... Donna DuVall
  - Executive Assistant ..... Nadine Christman

Part-time Coordinators ..... Linda Cornell
- ..... Gerald Wirthwine

Professional Development/Instructor ..... Patricia Huller

Accounting Technology
- Program Chair ..... Michele Geers
- Co-op Coordinator ..... Judith Schimpf
- Faculty ..... Yvonne Baker
- ..... Linda Schaffeld

Automotive Service Management Technology
- Program Chair ..... Keith Mains
- Co-op Coordinator ..... Paul Davis
- Faculty ..... John Hatton

Business Management, E-commerce Marketing, Financial Management, Purchasing Management, Marketing Management Technologies, Entrepreneurship, Quality Control/Assurance, Quality Management Certificates
- Program Chair ..... Peggy Harrier
- Co-op Coordinator ..... Jim Macke
- Co-op Coordinator, International Trade..... C. Jack Wilson
- Faculty ..... Stewart Bonem
- ..... Paul Callahan
- ..... Al Eilers
- ..... Carolyn Hatton
- ..... Jim Wood
- ..... Walt Wyatt

Culinary Arts & Hotel-Restaurant Technologies
- Program Chair ..... Jeffrey Sheldon
- Co-op Coordinator ..... Rich Hendrix
- Faculty ..... John Kinsella
- ..... Jim Myatt
- ..... Patricia Huller

Graphic Imaging Technologies and Packaging & Advertising Technologies
- Program Chair ..... Al Leicht
- Co-op Coordinator ..... Paul Davis
- Faculty ..... Kathleen Freed
- ..... Gary Walton

Landscape Horticulture Technology
- Program Chair ..... Claire Ehrlinger
- Co-op Coordinator ..... Paul Davis
- Faculty ..... Ben Wright

Office Technologies
- Program Chair ..... Connie Campbell
- Co-op Coordinator ..... Swanya Smith
- Faculty ..... Marc Baskind
- ..... Richard Brown
- ..... Sharon Brown
- ..... Jill Haft
- ..... Katye Mindhardt
- ..... Rick Sefton

Pre-Business Administration
- Advisor .....Linda Schaffeld
- Co-op Coordinator ..... Judith Schimpf

Property Management & Real Estate Technologies
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- Co-op Coordinator ..... C. Jack Wilson

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- Executive Assistant ..... Julie Webster
- Clerical Assistant ..... Karen McKinney
- Assistant Dean..... Connie Sketch
- Assistant Dean..... Gary Graff
- Executive Assistant ..... Carla Wermuth
- Clerical Assistant ..... Linda Gibbons
- Senior Lab Technician ..... Wayne Herbers
- Lab Technician ..... Steven Wells

**Engineering Technologies Division**

Aviation Maintenance Technology
- Program Chair ..... James Schmid
- Co-op Coordinator ..... Margaret H. Davis
- Faculty ..... Ed Weichold
- ..... Jeff Wright

Biomedical Equipment and Information Systems Technology
- Program Chair ..... Steve Yelton, P.E.
- Co-op Coordinator ..... Sue Dolan

Chemical Technology
- Program Chair ..... Martha Brosz
- Co-op Coordinator ..... Kathy McClusky

Civil Engineering Technology
- Program Chair ..... Tom Burns, P.E.
- Co-op Coordinator ..... Margaret H. Davis
- Faculty ..... George Armstrong, P.E., P.S.
- ..... John Buttelwerth
- ..... James Decker, P.S.
- ..... Elias Feghali
- ..... Carol Morman, P.E., P.S.
- ..... Ralph Wells

Electro-Mechanical Engineering Technology
- Program Chair ..... Robert Romano, P.E.
- Co-op Coordinator ..... Kim Richards
- Faculty ..... Paul Weingartner, P.E.

Electronics Engineering Technology
- Program Chair ..... Steve Yelton, P.E.
- Co-op Coordinator ..... Sue Dolan
- Faculty ..... Mike Carroll
- ..... Larry Morris, P.E.

Environmental Engineering Technology
- Program Chair ..... Ann Gunkel
- Co-op Coordinator ..... Kathy McClusky
- Faculty ..... Ann Fallon

Laser Electro-Optics Engineering Technology and Ophthalmic Optics Technology
- Program Chair ..... Prem Batra
- Co-op Coordinator ..... Kathy McClusky
- Faculty ..... David Simmermon

Mechanical Engineering Technology
- Program Chair ..... Mike DeVore, P.E.
- Co-op Coordinator ..... Kim Richards
- Faculty ..... Larry Feist
- ..... Judd James, CMfgE
- ..... David Smith
- ..... Kenneth V. Stoll

**Information Technologies Division**

Information Systems and Services
- Computer Information Systems Technology
- Database Management Systems
- Database Management Systems - Administration Major
- PC Support and Administration
- Program Chair ..... Don Youngpeter, P.E.
- Faculty ..... Patrick Callahan
- .....Robert Coil
- ..... Mike Nakoff
- ..... Sharon White

Multimedia Information Design
- Computer Graphics
- Technical Communication
- Video and Film Production Technology

Web Design
Program Chair ..... Pam Ecker
Faculty ..... Jason Caudill
..... Colleen Meyer
Network Systems
Computer Network Engineering Technology
Telecommunications Engineering Technology
Network Administration
Program Chair ..... Gary M. Webster, P.E.
Faculty ..... Jeff Vetter
Programming and Software Development
Business Computer Programming
Software Engineering Technology
Program Chair ..... Steve Yelton, P.E.
Faculty ..... Verale Phillips
Information Technologies Co-op Coordinators
.....Sue Dolan
.....Andrea Feld-Brockett
.....Adam Waits

**Health Technologies**

Dean ..... Marianne Krismer, RD, LD
Executive Assistant ..... Cheri Furlong
Assistant Dean ..... Carolyn Laemmle, MT(ASCP)
Assistant Dean ..... Bessie Pitts
Executive Assistant ..... Tim Fieger
Clerical Assistants ..... Yolanda Jackson
..... Marianne McCabe
Health Technologies Lab Manager ..... John Szasz
Acting Health Excel Services Retention Coordinator
..... Dan Lozier
Health Excel Advisor ..... Stephanie Winter
Aquatic Group Fitness Instructor Certificate .....
..... Pat Morganroth, RN, CDE
Central Service Technology Certificate . Wanda Dantzler, RN
Clinical Assistant Certificate ..... Janelle Gohn, MT(ASCP)
Clinical Laboratory Technology
Program Chair ..... Janelle Gohn, MT(ASCP)
Faculty ..... Larry Suddendorf, MT(ASCP)
Coding Certificate ..... Gail Smith, RHIA, CCS-P
Dietary Management Certificate ..... JoAnn Airaghi, RD, LD
Dietetic Technology
Program Chair ..... Sharman Willmore, RD, LD
Faculty ..... Charalee Allen, RD, LD
Electrocardiography Certificate ..... Daphne Robinson, RHIT
Emergency Medical Services Technology
Program Chair ..... Debra Lierl, RRT
Faculty ..... Phil Vossmeyer
Fire Service Technology ..... Phil Vossmeyer
General X-Ray Machine Operator Certificate .....
..... Daphne Robinson, RHIT
Group Fitness Instructor Certificate Pat Morganroth, RN, CDE
Health & Fitness Technology
Program Chair ..... Pat Morganroth, RN, CDE
Health Information Management
Program Chair ..... Gail Smith, RHIA, CCS-P
Faculty ..... Sherri Mallett, RHIA, CCS-P
Health Unit Coordinator Certificate .....
..... Daphne Robinson, RHIT
Integrative Medical Massage Therapy-ATS .....
.....Daphne Robinson, RHIT
Medical Assistant Technology
Program Chair .....Olivia Watts, RN
Faculty ..... Nancy Walters, MT(ASCP), CMA
Medical Transcription Certificate ..... Sandy Speller, RHIT
Multi-Competency Health Technician
Program Chair ..... Daphne Robinson, RHIT
Faculty ..... Sandy Speller, RHIT
Nurse Aide Training Program ..... Stephanie Heesten, RN
Nursing Program
Program Chair/Director ..... Alice Palmer, RN, ANP-C
Program Coordinator/Assistant Director .....
..... Joanne Johnson, RNC
Program Chair ..... Judith Faessler, RN, ANP-C
Faculty ..... Mary Burns, RNC
..... Janice Curry, RNC
..... Florence Donohue, RNC, PNP
..... Sue Guntzelman, RNC
..... Jerelen Hancox, RN, ARNP
..... Brenda Heck, RN
..... Roberta Hochmuth, RN
..... Debra Hying, RNC
..... Janice Lockett, RN, RCVT
..... Connie Rose, RN
..... Margaret Swinford, RN
..... Dorothy Varchol, RNC
..... Elizabeth von Volborth, RN
..... Suzanne Zellner, RNC
Lab Managers ..... Cathy DeZarn
..... Phyllis Uffman
Occupational Therapy Assistant Technology
Program Chair ..... Claudia Miller, MHS, OTR/L
Faculty ..... Cindy Kief, COTA/L, AP
Clinical Coordinator ..... Anne Zobay, OTR/L
Paramedic Technology ..... Debbie Lierl, RRT
Patient Care Assistant Certificate ..... Stephanie Heesten, RN
Personal Fitness Trainer Certificate .....
.....Pat Morganroth, RN, CDE
Resistance Trainer Certificate ..... Pat Morganroth, RN, CDE
Respiratory Care Technology
Program Chair ..... Debbie Lierl, RRT
Faculty ..... Tom Stormer, RRT
Restorative Aide Certificate ..... Stephanie Heesten, RN
Surgical Technology
Program Chair ..... Wanda Dantzler, RN
Faculty ..... Susan Hawks, RN, CNOL, CRNFA
.....Kathy Wolfer, RN
Biology Faculty
Program Chair .....Robert Eveslage, RRT
Faculty ..... Dave Bryan
..... Tom Kober
..... Peggy Lepley
..... Jude Norton, PA, CST

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Assistant Dean .....
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..... Brenda Smith
Writing Center Manager .....
Senior Science Laboratory Technician ..... Gail Quinlan
Cooperative Education Coordinator ..... Linda Romero
Tutoring Center Coordinator ..... Deborah Greenlee
Associate of Arts & Associate of Sciences

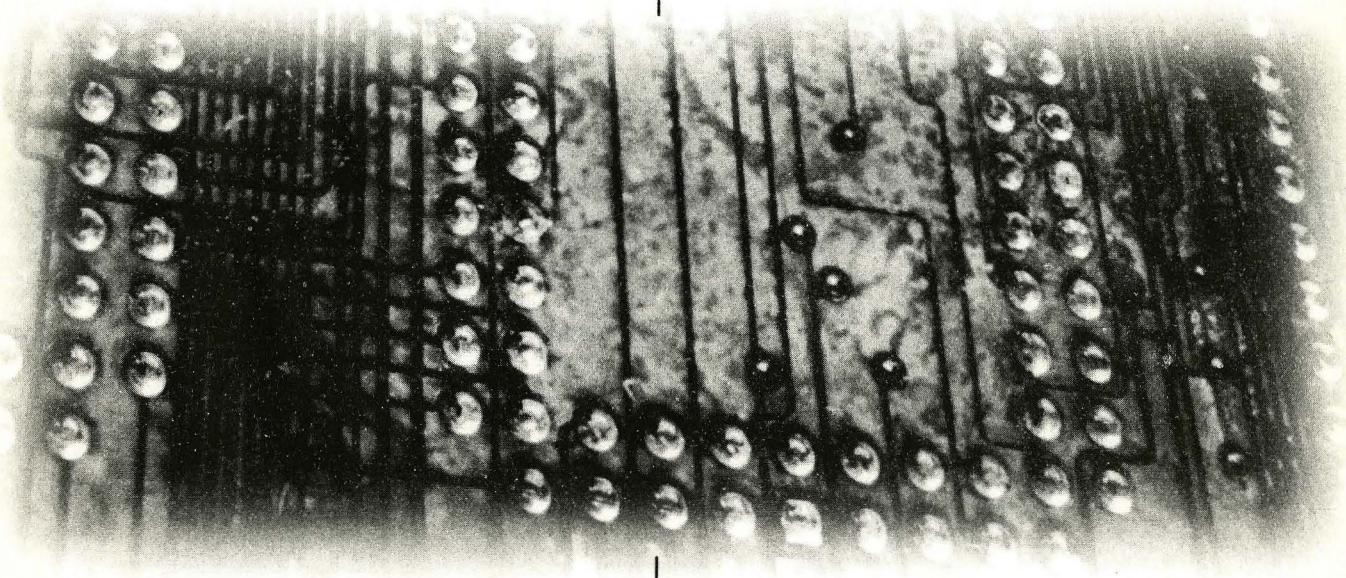
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Interpreter Training
Chair ..... Dawn Cartwright
Faculty ..... Tony Merchinsky
..... Cheryl Roddy
Interpreters ..... Nicole Kuhn
ESL ..... Andrea Cheng
Chemistry
Chair ..... James Bronstrup
Faculty ..... Wyatt Cotton
Communication Skills
Chair ..... Catherine Rahmes
Faculty ..... John Battistone
..... Carla Gesell-Streeter
..... Marcus Green
..... Michael Jones
..... Alyce Rieck
..... Joyce Rimlinger
..... Kathleen Spencer
..... Geoffrey Woolf
..... Kim Ziegel
Humanities/Foreign Language
Chair ..... Samuel Rowe
Faculty ..... Pam Ecker
Mathematics
Chair ..... Mary Frey
Faculty ..... Jan Hoeweler
..... Terrence Huge, CQE, CRE
..... Joan Jackson
..... James Long
..... James Marcotte
..... Lawrence Pucke
..... Richard Swanson
..... William Wunderlich
Physics
Chair ..... Rodney Rupp
Faculty ..... Debra Barrett
..... Edward Sunderhaus
Social Sciences
Chair ..... Ronald Craig
Faculty ..... Crystal Bossard
..... Mary C. Boswell
..... Pamela Chaney-Land
..... Anthony DeSimone
..... James Hassan
..... Marcha Hunley
..... Abraham Kuranga
.....Siamak Salehi

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Faculty ..... Thomas Grogan
..... Catherine Orsini
Reading/Writing
Chair ..... Paul Olubas
Faculty .....Laura Attenborough
..... Andrea Cheng
..... Hope Lieberman
GED/ABLE ..... Marilyn Schnorbus

Cincinnati State

# T E C H N O L O G Y



# for your career

# GENERAL INFORMATION

# Cincinnati State Technical and Community College

Cincinnati State Technical and Community College is a public, two-year college under the authority of the Ohio Board of Regents. Governed by a nine-member Board of Trustees, the College offers 72 associate degree programs and majors and numerous certificate programs. Annually, over 20,000 students enroll in Cincinnati State courses that are offered in the day, evening, and on weekends. In addition to its academic and technical programs, the College offers many continuing education opportunities through short courses, seminars, and on-site training for area businesses and industries. The College is fully accredited by the North Central Association of Colleges and Schools and holds numerous programmatic accreditations as well.

## Mission

Cincinnati State Technical and Community College is an affordable, open-access, public institution that responds to the educational needs of the community by offering quality technical, general education, training and academic transfer courses.

Cincinnati State provides a learning environment that values cultural diversity and a curriculum that blends both theory and practice through interactive instruction combined with cooperative education and/or clinical experiences.

Cincinnati State contributes to the economic development of the tri-state region and fosters lifelong learning opportunities for its citizens.

For a more comprehensive discussion of the mission, as approved by the Board of Trustees and the Ohio Board of Regents, readers should refer to the Academics, Policies & Procedures section of the catalog.

## Cooperative Education

Since its beginning, Cincinnati State has emphasized the value of integrating cooperative work experience with academic coursework. The College's graduate employment rate of 98% speaks directly to Cincinnati State's commitment to provide quality education enriched by on-the-job training. Students encounter "real life" job demands, helping to clarify their career choices as well as promoting independence and responsibility in the workplace. Most co-op experiences are paid placements that permit students to earn while learning and also to defray the total cost of their education. The College has been recognized nationally for its extensive cooperative education program. Over 600 area employers provide placements for Cincinnati State students who devote at least one term of their program of study to applying the knowledge they have acquired in the lab and in the classroom.

## Student-Centered Quality Education

Cincinnati State is also known for its dedication to teaching and its student-centered philosophy and practices. Small class sizes, an extensive developmental education program, a free tutoring program, counseling, and library services provide the kinds of academic support needed for success for both the returning adult student and the recent high school student. Both theory and practice are stressed through appropriate classroom, laboratory, and cooperative/clinical education experiences. Each student at Cincinnati State is an individual, not a number.

Cincinnati State teachers take pride in the personal attention afforded to each student, and every Cincinnati State graduate is a reflection of the College's commitment to developing human potential, one student at a time.

## Collaborative Relationships

Cincinnati State serves the community by hosting numerous community events throughout the year and by its many partnerships with area high schools and universities. In addition to the College's extensive cooperative education program described above, the College is a member of the Greater Cincinnati Consortium of Colleges and Universities which allows students, under certain conditions, to take courses not offered at their home institution at any of the thirteen member institutions. Students who wish more information about this program should contact Cincinnati State's registrar.

Cincinnati State also has a cross-registration agreement with the Army and Air Force ROTC at the University of Cincinnati. Army and Air Force personnel teach the General Military Training (GMT) course classes. Enrollment in these classes entails no service obligation. Books for these courses and uniforms are provided free to students. The student attends ROTC classes and drill periods on the University of Cincinnati campus while attending academic classes at Cincinnati State. Details may be obtained from the Veterans Affairs Office, Room 157 at Cincinnati State.

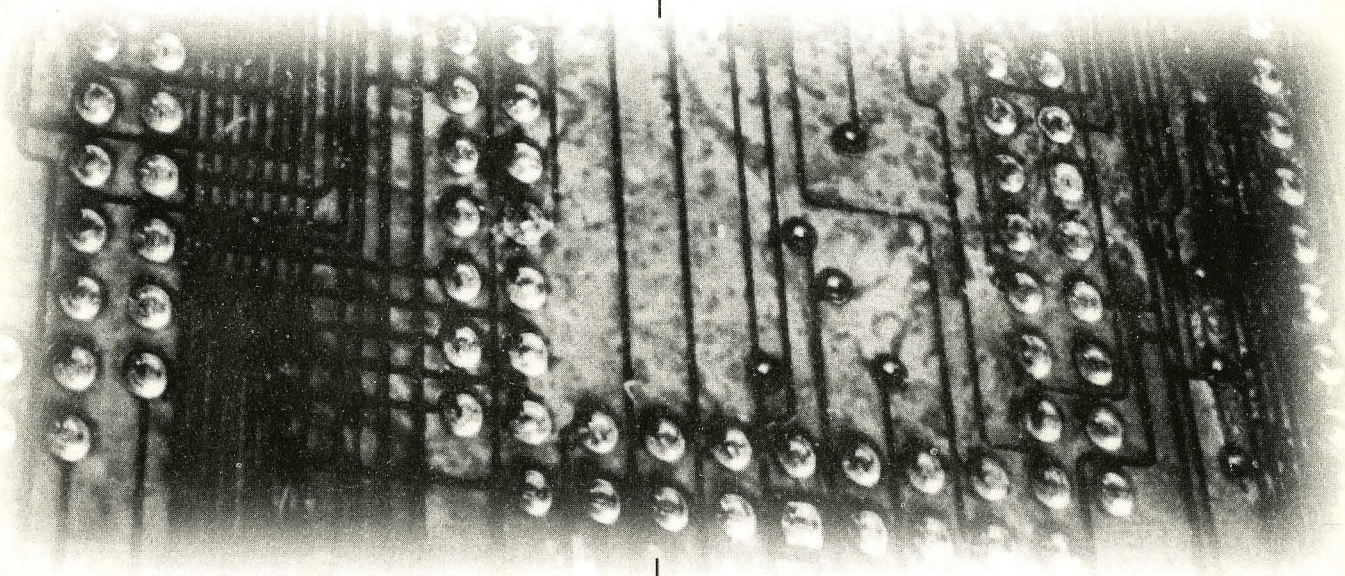
## Accreditation & Memberships

Ohio Board of Regents
Division of Vocational Education, State Department of Education
North Central Association of Colleges and Schools
Landscape Contractors of America
FAA-Approved Aircraft Maintenance Technician School
American Culinary Federation Educational Institute
National League for Nursing
Technology Accreditation Commission of the Accreditation Board for Engineering and Technology
Member of the American Society of Allied Health Professionals
Member of Cooperative Education Association
Member of C/QIN (Continuous Quality Improvement Network)
Member of American Technical Education Association
Member of American Association of Community Colleges
Member of Ohio Association of Community Colleges
Member of National Junior College Athletic Association
Member of World Affairs Council

Member of AQIP (Academic Quality Improvement Project)
Member of American Productivity & Quality Center
Member of American Society for Quality Management
Member of Association for Quality & Participation
Member of International Society for Performance Improvement

Cincinnati State

T E C H N O L O G Y



f o r  y o u r  c a r e e r

# ADMISSION, FEES & FINANCIAL AID

# Admission Information

Cincinnati State Technical and Community College is an open-access, public institution that is dedicated to the principles of providing each student the maximum opportunity to develop and learn.

Students who are high school graduates or have a high school equivalence (GED) are eligible for admission to Cincinnati State Technical and Community College.

Upon completion of the admission process, students will be admitted to a degree program. Some admitted students may be recommended to participate in prerequisite or developmental education courses. All placements are based on a review of placement test scores and high school (or GED) and college transcripts. All admission placements will lead to an associate degree or certificate.

Prerequisite or developmental education courses enable the student to develop or strengthen important academic skills by taking prescribed classes. A class schedule is designed by an academic advisor to enhance the student's academic success and is based on the student's goal, a review of placement test scores, high school and/or college transcripts, and the academic advising session. Students must complete all prerequisite or developmental education courses in five terms or one calendar year.

Students admitted to degree programs are regular students enrolled in eligible programs for the purpose of receiving a degree or certificate.

Graduation Rate Information: Graduation rate information is available in the Office of Admission and Counseling, room 168.

Apply Early! Students are advised to begin the process of admission six to eight weeks in advance of the term in which they plan to attend Cincinnati State, in order to facilitate transcript requests from other schools, financial aid processing, and advising. Some programs reach their capacity early requiring possible placement on a wait list.

## Application for Admission

**High school graduates and recipients of the GED certificate should submit the following:**

- A completed and signed Application for Admission.
- Cincinnati State does not charge an application fee. (A $10 non-refundable admission fee will be charged to the student's first registration bill.)
- Request that the high school send the Office of Admission an official transcript copy covering all work completed at time of application. (A final high school transcript will be required upon graduation.)
- Applicants who are not high school graduates must also submit a copy of their General Educational Development Test (GED) scores.
- Complete the ACT™ Compass Placement test (see Placement Testing on page 18).

**Applicants who have attended another college should submit the following:**

- A completed and signed Application for Admission.
- Cincinnati State does not charge an application fee. (A $10 non-refundable admission fee will be charged to the student's first registration bill.)
- Request that the high school send the Office of Admission a final official transcript copy.
- Request an official transcript be sent to the Office of Admission from each college or university attended
- Complete the ACT™ Compass Placement test (see Placement Testing on page 18).
  *A request to waive this requirement can be initiated through the Office of Admission if the student has either earned a degree at a regionally accredited institution, or the student has previous college-level coursework in English and math.*

**Readmission**

- Admitted students who have not enrolled for **five (5) consecutive terms** must reapply for admission and pay a $10 non-refundable admission fee (charged to the student's first registration bill).
- Students reapplying for admission **five (5) years** after their prior admission date will need to resubmit an Application for Admission and retest.
- Admission documents are maintained for five (5) years after the initial admission date.

**Applicants who are non-degree seeking** should submit a completed and signed Application for Admission and the course registration form at the time of registration.

**NOTE:**

- An Application for Admission for **non-admitted** students is valid for one (1) year.
- Admission documents for **admitted** students are maintained for five (5) years after the initial admission date.
- ***All documents submitted to the Office of Admission become the property of Cincinnati State Technical and Communily College and will not be returned or forwarded.***

## International Applications

International applicants must submit the following:

1. Admission application
2. A high school transcript (English translated) and college transcript (English translated) (if applicable) to the college
3. TOEFL examination results, if not in the USA.
4. A completed Cincinnati State Declaration and Certification of Finances form.
5. An Advance Tuition Deposit Fee of $3,500. This deposit fee will be credited to the student's account and used for the payment of tuition and fees only. The Advance Deposit Fee covers approximately 2 terms of tuition. All other expenses—room, board, transportation and incidentals must be paid for by the student.

All of the above steps must be completed **before** a Certificate of Eligibility (Form I-20) will be authorized. In order to facilitate enrollment, an International Student should contact the International Student Advisor.

A $10 admission fee will be charged on the first registration bill. Cincinnati State does not charge an application fee.

## Home-Schooled Students

Home-schooled applicants must submit the following: 1) Application for Admission, 2) a notarized letter from their parents detailing the content of the student's home-school experience and duration, and 3) a diploma and transcript from a recognized home-schooling association or a state diploma based on the GED. All home-schooled applicants must take the ACT Compass™ Placement test.

## Placement Testing

All new students who are seeking a degree or certificate must participate in placement testing for mathematics, writing, and reading. This placement testing will assist your advisors in helping you to succeed. Testing will be conducted in room 187 of the main building. Reservations are not necessary as new students are individually tested on a drop-in basis.

There is no charge for testing. Testing hours are:

Monday - Thursday 8:00 a.m. - 8:00 p.m.
Arrive no later than 6:00 p.m.

Friday 8:00 a.m. - 4:00 p.m.
Arrive no later than 2:00 p.m.

First Saturday of Each Month 9:00 a.m. - noon
Arrive no later than 9:15 a.m.
(Every Saturday in July and August.)

No Appointment is necessary!
Photo ID required.

Please allow approximately 2 1/2 hours for testing within the scheduling hours. Any questions regarding the Compass™ Placement Test can be directed to the Office of Admission & Counseling, room 168, or telephone 861-7700.

## Post-Secondary Enrollment Options Program (PSEO)
## 9th, 10th, 11th and 12th grades

As provided for in Senate Bill 140

*High school students who are enrolled in Tech-Prep classes and/or other special college-sponsored classes should contact the Director of Admission at 569-1550 for application and enrollment requirements prior to completing this application.

**Guidelines**

I. The post secondary enrollment options program provides qualified 9th through 12th grade high school students who attend public and chartered non-public Ohio high schools, the opportunity to enrich their educational experience by enrolling in college-level coursework. The program is intended to complement rather than replace high school preparatory curriculum.
   Important dates: By March 1, the school district notifies students and parents about the PSEO program. By March 30, student informs school district of intent to participate in the PSEO program.

II. A. All 9th, 10th, 11th and 12th grade students who wish to enter Cincinnati State for college and/or high school credit should submit the following items:
   1. For each academic year, apply and have all credentials on file **no later** than:
      **June 16** for Early Fall & Late Fall term,
      **November 19** for the Winter & Spring term.
      (PSEO does not qualify for the Summer term.)
   2. A letter of recommendation from the high school counselor attesting to the students academic and social readiness to enter college courses.
   3. An official copy of the high school transcript. (All 9th grade proficiency tests must have been passed.)

B. All PSEO applicants need to complete the ACT™ Compass Placement Test administered on the Cincinnati State campus. Hours of testing are:
   Monday to Thursday - 8:00 a.m. to 8:00 p.m.
   Friday - 8:00 a.m. to 4:00 p.m.
   First Saturday each month - 9:00 a.m. to 12 noon
   *Please allow approximately 2 1/2 hours for testing within the scheduled hours.* **No reservations required.**

C. Admission to the PSEO program is based upon the completed Application for PSEO and qualification for college-level courses as indicated by the Compass test scores. Students should demonstrate college-level mastery in **all** areas.

D. All students who are accepted in the post-secondary enrollment options program at Cincinnati State are encouraged to include a parent/guardian at the initial registration meeting. This meeting will include a review of the College's academic procedures, practices, and policies.

E. High school counselors are responsible for explaining the equivalency, or lack of equivalency, of a given course at Cincinnati State in meeting high school graduation requirements.

F. Students must see the PSEO advisor prior to registration each term to prepare a schedule for the term. These registrations will be processed one week before classes begin.

III. Students enrolling in the program will be subject to the same policies and procedures, academic practices, and grading standards as all other Cincinnati State students.

***Cincinnati State reserves the right to review the final selection of college classes approved by the high school, and to limit participation in any class based on such circumstances as extraordinary lab fees, age, safety issues, excessive course load, or academic probation. High school students are not eligible to receive state or federal financial aid.***

**For additional information and/or application contact the Office of Admission, (513) 861-7700.**

# Financial Information

## Student Expenses

The Ohio Board of Regents provides a student subsidy to Cincinnati State Technical and Community College for each Ohio resident enrolled. The amount received from the Regents is less than one-half of the College's operating costs. The balance must come from tuition payments and other sources. Out-of-state residents pay the highest tuition since the College receives no Regents' subsidy for their instruction. (See the end of this section for complete explanation of residency determination.)

## Schedule of Fees*

Cincinnati State Technical and Community College continues to maintain affordable tuition rates in the Greater Cincinnati area.

**Tuition Fees (per term)**

| | Ohio Resident | Non-resident |
|---|---|---|
| Tuition fee per credit hour | $59.00 | $118.00 |

Tuition fee includes instructional fee, general fee, and other non-instructional services to the students. Non-resident fee includes a non-resident surcharge.

**Miscellaneous Fees**

| | |
|---|---|
| Admission Fee (payable at first registration) | $10.00 |
| Advanced Standing Credit Fee | $59.00 |
| Non-Resident Surcharge (per credit hour) | $59.00 |
| Late Registration Fees: | |
| (first day of the term) | $10.00 |
| (second day of the term) | $20.00 |
| (third day of the term and thereafter) | $30.00 |
| Tuition Installment Payment Plan (TIPP) Fee | $20.00 |
| Late Tuition Payment Fee | $40.00 |
| Course/Lab Fee | varies per course |
| Student I.D. Card | $ 1.00 |
| Registration Fee (per term) | $ 6.00 |
| Returned Check Fee | $20.00 |

**Parking Fees**

| | |
|---|---|
| Parking Garage Permit (per term, daytime) | $60.00 |
| Upper Lot Vehicle Parking Permit (per term, daytime) | $60.00 |
| Lower Lot Vehicle Parking Permit | $35.00 |
| Lower Lot Vehicle Parking Daily (daytime) | $ 1.40 |
| Evening Parking Permit Upper & Lower Lots and Parking Garage (per term) | $18.00 |
| Parking Permit - Harrison Airport Facility (per term) | $60.00 |
| Replacement Permit | $ 5.00 |

* Subject to change at the discretion of the College.

**Fees are non-refundable other than the Instructional Fee.**

## Cooperative Education Employment

Please refer to the specific curriculum to determine exact co-op credits required. Charges for co-op credit must be paid in advance on the established registration date.

## Books and Supplies

The cost of books and supplies can vary greatly from term to term. Also, different programs have different requirements. Students in the engineering technologies, for example, generally will spend more on supplies and equipment than the business oriented programs.

The first school term usually is the most expensive one as students purchase books and supplies at that time that they also use in later terms. The average expense for books and supplies is $250 per term.

## Senior Citizens

Senior citizens may register tuition free to audit courses as space is available after the pre-enrollment bill period. Senior citizens must pay the application, registration, lab and out-of-state fees, if applicable. Regular tuition will be charged to those senior citizens who wish to receive credit for the courses. They must pay tuition as well as fees for all non-credit courses. (An eligible senior citizen is one who is sixty years of age or older.)

## Refund of Tuition Charges

Students are responsible for paying all charges incurred as a result of registering for classes. The College will not drop a student's classes nor reduce tuition charges/fees due to a student's non-payment of those charges. Students may receive a fee reduction for classes by formally withdrawing (dropping) from those classes for any reason. The amount of the fee reduction is based upon the date of withdrawal (drop) and calculated according to the College's published refund schedule. Refunds are disbursed to the student or/and a third party payor. Refund checks are mailed to students during the third week of the term.

1. Requests for refunds will be considered only if the student completes and signs the official College drop/add class form. The student shall deliver the completed form to the Registrar Office. The official date of withdrawal (drop) is the date of entry of the form by the Registrar Office.
2. The Admissions fee is not refundable.
3. The following fees are not refundable unless the College cancels all classes the student registers for:
   Registration fee
   T.I.P.P. fee
   Late registration/payment fees
4. The College's refund schedule is as follows:
   Refunds for dropped classes processed in the Registrar Office before the first day of the term are calculated at a rate of 100% refund of the in or out-of-state tuition fee and course/lab fee for the dropped class.
   Refunds for dropped classes processed in the Registrar Office from the first day of the term through the seventh calendar day of the term will be calculated at a rate of 100% refund of the in or out-of-state tuition fee and course/lab fee only for the dropped class.
   Refunds for dropped classes processed in the Registrar Office within eight to fourteen calendar days from the first day of the term are calculated at a rate of 50% refund of the in or out-of-state tuition fee and course/lab fee for the dropped class.
5. Flexibly scheduled courses: Courses which have a beginning or/and ending date different than the first and last weeks of the normal term schedule are considered flexibly scheduled and will have a prorated refund period applied to them. A 100 percent refund is applicable to a flexibly scheduled course dropped in the first 11 percent period of that course's term. A 50 percent refund is applicable to a flexibly scheduled course dropped in the 12 to 22 percent period of that course's term. No refund is applicable after the 22 percent period of the term.
6. Course cancellation: A refund of 100% will be made to a student who has registered for courses that have been cancelled by the College (if the student does not change to another course).
7. Refunds for students whose registration bill was paid by third-party funding (financial aid, agency, T.I.P.P.) are applied toward reimbursing the third-party before any disbursement to the student.
8. If a student owes a financial obligation to the College, the refund will be applied toward payment of the balance due before any disbursement to the student.
9. Students who do not follow the established dropped-class procedures of the College will not be eligible for a refund.

10. Students who have questions concerning refunds may direct those questions to the College Cashier Office.
11. Appeals to this refund policy may be filed through the College Cashier Office.

**Non-Attendance of Classes**

1. Instructors are required to document student attendance in each course meeting throughout the term.
2. From the first day of the term until the First Day to Withdraw for the term, students who drop or withdraw from a course must identify whether or not they attended the course section.
3. A student who enrolls in a course but does not attend the course within the first two weeks will be designated a No Show (NS) by the instructor.
4. If there is a discrepancy between a student's self-reported attendance status and the attendance status reported by an instructor, the attendance status reported by the instructor will be the status of record.
5. Students are not permitted to begin attending a course section after a No Show (NS) has been issued by the instructor or self-reported by the student for that course section.
6. The designation of No Show (NS) will not appear on the student's transcript.
7. A student who receives a No Show (NS) designation for a course is still financially responsible for payment for the course. Federal Financial Aid is not applicable to a course for which a student has received a No Show (NS) designation.

A student is not permitted to withdraw from a course he or she did not attend or to which a No Show (NS) has been assigned.

**CINCINNATI STATE TECHNICAL AND COMMUNITY COLLEGE RESERVES THE RIGHT TO REVISE THIS STATEMENT OF TUITION REFUNDS AT ANY TIME.**

# Ohio Residence for Tuition Surcharge Purposes

Tuition is charged on the basis of residence in the State of Ohio and residence outside of the State of Ohio. A student with a question of their right to claim legal residence in the State of Ohio for educational purposes may request the College review their residency status. The student initiates the review process by submitting a completed Review of Residency Form to the Office of the Registrar. The Review of Residency Form should be submitted to the Office of the Registrar at least five (5) working days prior to the beginning of the term in which the student plans to enroll.

## GENERAL RESIDENCY GUIDELINES

1. The following persons shall be classified residents of the state of Ohio for tuition surcharge purposes. (Documentation supporting the student's request for being classified as an Ohio resident will be required).

a. A dependent student, at least one of whose parents or legal guardian has been a resident of the state of Ohio for all other legal purposes for twelve (12) consecutive months or more immediately preceding the enrollment of such student in an institution of higher education.

b. A person who has been a resident of Ohio for the purpose of this rule for at least twelve (12) consecutive months immediately preceding his or her enrollment in an institution of higher education and who is not receiving, and had not directly or indirectly received in the preceding twelve (12) consecutive months, financial support from other persons or entities who are not residents of Ohio for all other legal purposes.

c. A dependent child of a parent or legal guardian, or the spouse of a person who, as of the first day of the term of enrollment, has accepted full-time, self-sustaining employment and established domicile in the State of Ohio for reasons other than gaining the benefit of favorable tuition rates. Documentation will be required. Residency status will be lost immediately if the employed person upon whom resident student status was based accepts employment and establishes domicile outside of Ohio less than twelve (12) months after accepting employment and establishing domicile in Ohio.

d. A person who is living and is gainfully employed on a full-time or part-time and self-sustaining basis in Ohio and who is pursuing a part-time program of instruction at an institution of higher education shall be considered a resident of Ohio for tuition surcharge purposes.

e. A person who enters and currently remains on active duty status in the United States military service while a resident of Ohio for all other legal purposes and his or her dependents shall be considered residents of Ohio as long as Ohio remains the state of such person's domicile.

f. A person on active duty status in the United State military service who is stationed and resides in Ohio and his or her dependents shall be considered residents of Ohio.

2. A dependent person classified as a resident of Ohio for these purposes as a result of (1) (a) listed above and who is enrolled in an institution of higher education when his/her parents or legal guardian removes their residency from the state of Ohio shall continue to be considered a resident during continuous full-time enrollment and until his or her completion of any one academic program.

3. In considering residency, removal of the student or the student's parents or legal guardian from Ohio shall not, during a period of twelve (12) months following such removal, constitute relinquishment of Ohio residency status otherwise established under items (1)(a) or (1)(b) listed above.

4. A person transferred by his or her employer beyond the territorial limits of the fifty states of the United States and the District of Columbia while a resident of Ohio for all other legal purposes, and his or her dependents, shall be considered residents for these purposes as long as Ohio remains the state of such person's domicile and as long as such person has fulfilled his or her tax liability to the State of Ohio for at least the tax year preceding enrollment.

5. A person who has been employed as a migrant worker in the state of Ohio and his or her dependents shall be considered

a resident for these purposes provided such person has worked in Ohio for at least four months during each of the three years preceding the proposed enrollment.

6. Any person once classified as a non-resident, upon the completion of twelve (12) consecutive months of residency, must apply to the institution he or she attends for reclassification as a resident of Ohio for theses purposes if such a person in fact wants to be reclassified as a resident. Should such person present clear and convincing proof that no part of his or her financial support is or in the preceding twelve (12) months has been provided directly or indirectly by persons or entities who are not residents of Ohio for all other legal purposes, such person shall be reclassified as a resident.

7. Any reclassification of a person who was once classified as a non-resident for these purposes shall have prospective application only from the date of such reclassification.

8. Evidentiary determinations under this rule shall be made by the institution which will require, the submission of documentation regarding the sources of a student actual financial support and other documentation. Criteria which may be considered in determining residency for tuition surcharge purposes may include, but are not limited to:

a. Criteria evidencing residency:
   1) if a person is subject to tax liability under section 5747.02 of the Revised Code;
   2) if a person qualifies to vote in Ohio;
   3) if a person is eligible to receive state welfare benefits;
   4) if a person has an Ohio's driver's license and/or motor vehicle registration
   5) if a person has a signed and binding lease/deed to a domicile in the state of Ohio;
b. Criteria evidencing lack of residency
   1) if a person is a resident of or intends to be a resident of another state or nation for the purpose of tax liability, voting, receipt of welfare benefits, or student loan benefits (if the student qualified for that loan program by being a resident of that state or nation);
   2) if a person is a resident or intends to be a resident of another state or nation for any purpose other than tax liability, voting, or receipt of welfare benefits i.e. driver's license, etc...

**IMPORTANT: An individual's immigration status will affect his or her ability to obtain resident status for tuition purposes. Contact the Office of the Registrar at (513) 569-1522 for more information.**

**Additional information and guidelines concerning Residency are available in the Office of the Registrar.**

# Tuition Reciprocity for Northern Kentucky Residents

Cincinnati State Technical and Community College does not charge out-of-state tuition add-ons to residents of Boone, Bracken, Campbell, Carroll, Gallatin, Grant, Kenton, and Pendleton Counties in Kentucky. To qualify for reciprocity, students must be admitted to Cincinnati State as a degree-seeking student and enroll in an eligible associate degree program. To be admitted a student must submit an admission application, have high school and college (if applicable) transcripts mailed to Cincinnati State, and complete the placement test. Associate degree programs which are also offered at Northern Kentucky University are excluded from this tuition reciprocity agreement, namely nursing and respiratory care and all certificate programs.

This same reciprocity agreement enables graduates of Cincinnati State who are residents of Butler, Clermont, Hamilton, and Warren Counties in Ohio to enroll in certain baccalaureate degree programs at Northern Kentucky University and pay Kentucky resident tuition rates. Graduates must satisfy all NKU regular transfer admission requirements, including any requirements of the specific baccalaureate program.

# Financial Aid

At Cincinnati State, the purpose of financial aid is to provide financial assistance to students who, without such assistance, would be unable to attend the college. Cincinnati State awards over ten million dollars annually to some 3500 students from federal and state financial aid programs, private donors and the College's own funds. Complete information about all of the financial aid programs administered at Cincinnati State is available from the Financial Aid Office and at the Cincinnati State financial aid web site: www.cinstate.cc.oh.us.

Financial aid is money in the form of scholarships, grants, loans and employment (work-study). Most scholarships do not have to be repaid. Some scholarships, however, are awarded to students who promise to teach or perform some other service when they finish school. Grants are typically awarded on the basis of financial need and do not have to be repaid. Loans are borrowed money that has to be PAID BACK over a period of time, usually after the student leaves school. Work-study is money that students earn by working at a part-time job.

One of the principles behind awarding need-based financial aid is that students and their families should pay for educational expenses to the extent they are able. A family's ability to pay for educational costs must be evaluated in an equitable and consistent manner. To be fair to everyone, a standard formula is used to calculate a student's Expected Family Contribution (EFC). The information is derived from the student's completed Free Application for Federal Student Aid (FAFSA). Financial need is the difference between a student's total annual educational expenses and the amount the student and his or her family is expected to contribute toward those expenses. A student's need for financial assistance will differ from school to school because the cost of attendance will differ. Students and their families who have special circumstances that might affect the amount they are expected to contribute, such as the recent unemployment of a parent or spouse, unusual medical or dental expenses not paid by insurance, tuition expenses for children attending a private elementary or secondary school, may request a Special Condition Application from the Financial Aid Office.

## How To Apply

Each year, students need to complete the Free Application for Federal Student Aid (FAFSA). The FAFSA includes all the information necessary to determine the student's Expected Family Contribution. The FAFSA must be completed for consideration of most federal student aid programs. Many states, including Ohio, Indiana and Kentucky, use the FAFSA to award state aid. Students automatically receive a RENEWAL FAFSA in subsequent years that contains a summary of the information reported on the prior year FAFSA.

The FAFSA is available in two formats, paper and electronic. The paper FAFSA is mailed directly to the application processor listed on the FAFSA. For those who apply by mail, the processing time frame is approximately four (4) weeks. For FAFSAs submitted electronically, the processing time frame is about one (1) week. Electronic filers can submit their FAFSA application through the Internet by using the Cincinnati State financial aid web address @ www.cinstate.cc.oh.us or at the Department of Education's web address @www.fafsa.ed.gov. Students must provide the federal school code number for each school where they want their FAFSA results sent. **The federal school code number for Cincinnati State is 010345.** To receive maximum consideration for certain programs, including the Federal Supplemental Educational Opportunity Grant (SEOG), Federal Work-Study (FWS) and Federal Perkins Loan programs, students should submit their FAFSA forms by February 15 of each calendar year. Once a paper or electronic FAFSA is submitted, students receive a document called a Student Aid Report (SAR). Students should keep all parts of their SAR in a safe place. The College will receive the results of each student's FAFSA electronically. Students will receive an award letter from the Financial Aid Office that tells them the types and amounts of aid that have been awarded for their attendance at Cincinnati State.

## Cincinnati State Scholarship Program

The purpose of the scholarship program at Cincinnati State is to acknowledge and reward high academic achievement by helping deserving students finance their college educational cost. The Cincinnati State scholarship application deadline date is April 1 of each calendar year. RECIPIENTS OF A SCHOLARSHIP FROM CINCINNATI STATE MUST REAPPLY EACH YEAR. Eligibility requirements include:

- U. S. citizenship
- enrolled or accepted for enrollment into a degree or certificate program
- minimum grade point average of 3.0
- for new students, have ranked in upper 20% of their high school graduating class
- for continuing students, have completed a minimum of 12 credit hours at Cincinnati State
- for need-based applicants, have applicable FAFSA results on file
- two letters of recommendation

Students who apply for a scholarship by the due date will be considered for all scholarships for which they are eligible. The number and type of scholarships vary from year to year depending on donations received for the scholarship program.

### Cincinnati State Presidential Scholarship

Each year, Cincinnati State's Office of Admission designates a $1,000 scholarship to every Hamilton County high school including parochial, private, and public. These scholarships are funded by the Cincinnati State Foundation to reward the efforts of outstanding students. Interersted high school seniors should contact their high school counselor before May 1.

## Private ("Outside") Scholarship Opportunities

The public library is an excellent source of information on private sources of financial aid. Many companies have programs to help students pay for post-secondary educational cost for employees and their family members. In addition, financial assistance is available from many foundations, religious organizations, fraternities, sororities, town and city clubs, local school boards, and civic groups. This information is FREE. There are FREE on-line scholarship search programs accessible via the Internet. Students are invited to visit the Cincinnati State Financial Aid Office web site @ www.cinstate.cc.oh.us for access to one of the largest FREE on-line scholarship search programs called FASTWeb! Students are also encouraged to review the Scholarship Bulletin Board located outside the Financial Aid Office for up-to-date scholarship opportunities.

## Federal Student Aid Programs

To receive financial aid from the federal student aid programs, students must:

- have financial need
- have a high school diploma or General Education Development Certificate (GED)
- be enrolled or accepted for enrollment as a regular student working toward a degree or certificate in an eligible program
- be a U.S. citizen or eligible non-citizen
- have a valid Social Security Number
- sign a statement on the FAFSA certifying that all federal student aid will be used only for educational purposes
- not be in default on a federal student loan or owe money back on a federal student grant
- register with the Selective Service, if required,
- make satisfactory academic progress, and
- not have been convicted for any illegal drug offense.

A copy of the financial aid Standards of Satisfactory Academic Progress Policy is available by contacting the Financial Aid Office.

Other general financial aid information you should know:

- financial aid awards are adjusted appropriately for changes in a student's enrollment status between terms;
- students must register for all classes which will be paid in part or in full by financial aid funds not later than the fifth (5) day of each term;
- to be eligible for federal student aid, students must enroll and attend classes in which they are registered. The Financial Aid Office is required to recalculate a student's financial aid award(s) to reflect only those classes for which the student actually begins attendance.

Detailed information on these and other financial aid eligibility criteria may be obtained from the Financial Aid Office.

### Federal Pell Grant

Pell Grants are awarded to undergraduate students who have not earned a bachelor's or professional degree and demonstrate financial need. The annual maximum Pell Grant is determined, each year, by the federal government. Pell Grants may be awarded to both full and part-time students.

**Supplemental Educational Opportunity Grant – SEOG**

SEOG is for undergraduate students with exceptional financial need who are eligible to receive a Pell Grant. To be considered for a SEOG at Cincinnati State, students must file the annual FAFSA by February 15 of each year. Funding is limited and is awarded based on the availability of funds.

**Federal Work-Study**

Federal Work-Study provides jobs for students with financial need allowing them to earn money to help pay education expenses. The amount a student can earn cannot exceed the Work-Study award. When assigning work hours, supervisors will consider a student's class schedule, Work-Study award amount, and employer needs. Work-Study awards are offered first to students with exceptional financial need and who have filed the annual FAFSA by the February 15 priority deadline.

**Federal Perkins Loan**

A Federal Perkins Loan is a low-interest (5%) loan for students with exceptional financial need. Cincinnati State is the lender under this program. Perkins Loan funds are awarded first to students who have met the February 15 priority deadline date and who indicated an interest in student loans on the annual FAFSA.

Students who accept their Perkins Loan award are required to attend an IN-PERSON Loan Entrance Interview prior to the first disbursement of their loan proceeds. This mandatory Entrance Interview is conducted by a Financial Aid Advisor in the Financial Aid Office.

**Federal Stafford Loan Program**

Federal Stafford loans (subsidized and unsubsidized), are low-interest loans made to students attending school on at least a half-time basis. At Cincinnati State, half-time means enrolled for at least six (6) credit hours per term. Loans under the Federal Stafford Loan program are made by banks, credit unions, savings and loan associations and private agencies. Students are not required to make payments while in school of a subsidized loan; students are required to make payments on the interest that accrues, while in school, on an unsubsidized loan. An option to have the interest capitalized on an unsubsidized loan is available.

At Cincinnati State, ALL STUDENTS, are required to complete an on-line loan counseling session in order to receive the first disbursement of their loan proceeds for the academic year. Students access the appropriate loan counseling session @www.cinstate.cc.oh.us. First-time borrowers complete the "Entrance Loan Counseling" session; non-first-time borrowers (all other students) complete the "Debt Management Counseling" session. For first-time borrowers, loan proceeds are delayed for the first 30 days of the loan period. Students must maintain their eligibility during this period. The purpose of these mandatory loan counseling sessions is to ensure that all student borrowers:

- review and understand their loan repayment obligation
- anticipate their average monthly repayment amount
- remember to update their lender/guaranty agency with any address or other pertinent change
- review the deferment, forbearance and cancellation conditions of their loan, and
- review the consequences of delinquency and default of a student loan.

**Federal Plus Loans – Loans for Parents**

PLUS loans enable parents of dependent students with good credit histories to borrow to help pay their educational cost. The student, for whom a PLUS loan is borrowed, must be attending school on at least a half-time basis. PLUS loans are made by banks, credit unions, savings and loan associations and private agencies.

## Ohio Student Aid Programs

The Ohio Board of Regents (OBR) administers several financial aid programs providing assistance to college students based on a variety of criteria ranging from need to academic achievement. For more information on these programs, visit the OBR web site @ www.ode.ohio.gov.

**Ohio Instructional Grant** - The Ohio Instructional Grant (OIG) program provides financial assistance to needy Ohio students attending Ohio and Pennsylvania schools as full-time undergraduate students. Students from families with incomes below a certain threshold, as established each year by the OBR, are eligible. To receive an OIG, eligible students must be enrolled in an eligible degree granting program. Students enrolled in a certificate program are not eligible for an OIG. Students may receive an OIG for a maximum of fifteen (15) terms, limited to four (4) terms per academic year at Cincinnati State. Students apply for the OIG by completing the annual FAFSA by October 1 of each year.

**Part-Time Student Instructional Grant** - The part-time Ohio instructional grant program provides financial assistance to needy Ohio undergraduate students attending Ohio school's on a part-time basis. Part-time Ohio grant dollars are limited. Students must request Part-time OIG funds directly from the Financial Aid Office for each term in the award year.

**Ohio Academic Scholarship** - The Ohio Academic Scholarship program provides scholarships for up to four (4) years for academically outstanding Ohio high school graduates on a competitive basis. The program's objective is to encourage Ohio students to attend an Ohio college or university. Ohio's academically top-ranked students are eligible and should contact their high school guidance counselor for more information.

**Ohio War Orphan's Scholarship** - The Ohio War Orphan's Scholarship program provides reimbursement for undergraduate instructional fees waived by state-assisted institutions on behalf of eligible students. The children of disabled or deceased veterans who served in the military during a period when the U.S. was at war, are eligible to apply.

**Nurse Education Assistance Loan Program-NEALP** - The purpose of the NEALP is to provide financial assistance to students enrolled in approved nurse education programs in Ohio schools and to encourage students to remain in Ohio as they enter the nursing profession. NEALP loans are limited to $3,000 per year for a maximum of three years or $12,000 total loan balance. After graduation from an approved nurse education program, a borrower may be eligible for debt cancellation at a rate of 20 percent per year for a maximum of four years (80 percent) if the borrower is employed in the clinical practice of nursing in the State of Ohio. To be eligible for a Nurse Education Assistance Loan, an applicant must: be enrolled in an approved Ohio prelicensure or post licensure LPN or RN nurse education program, not owe a refund or be in default on any education loan, and maintain good academic standing. Students preparing for the following nursing professions are

also eligible to receive Nurse Education Assistance Loans: Certified Nurse Practitioner, Certified Registered Nurse Anesthetist and Certified Nurse Midwife.

**Tuition Waiver for the Children of Fire Fighters and Peace Officers Killed in the Line of Duty** - The tuition waiver for the children of fire fighters and/or peace officers killed in the line of duty provides a waiver of undergraduate instructional fees at state-assisted colleges.

**Supplemental Student Loan (SLS) Program - Ohio Loans for Ohio Students** - The SLS program was created by the Ohio General Assembly and designed to bridge the gap when savings, scholarships, grants, federal loans and other sources are not enough to pay for educational costs. Borrowers can choose a fixed interest rate which changes quarterly. The borrower and co-signer, if applicable, must meet certain credit criteria.

**Ohio 12th Grade Proficiency Scholarship** - The Ohio Board of Regents (OBR) awards a one-time $500 scholarship to college freshmen who have successfully completed all sections of the Ohio 12th Grade Proficiency Examination. Students should contact their high school guidance counselor for additional information.

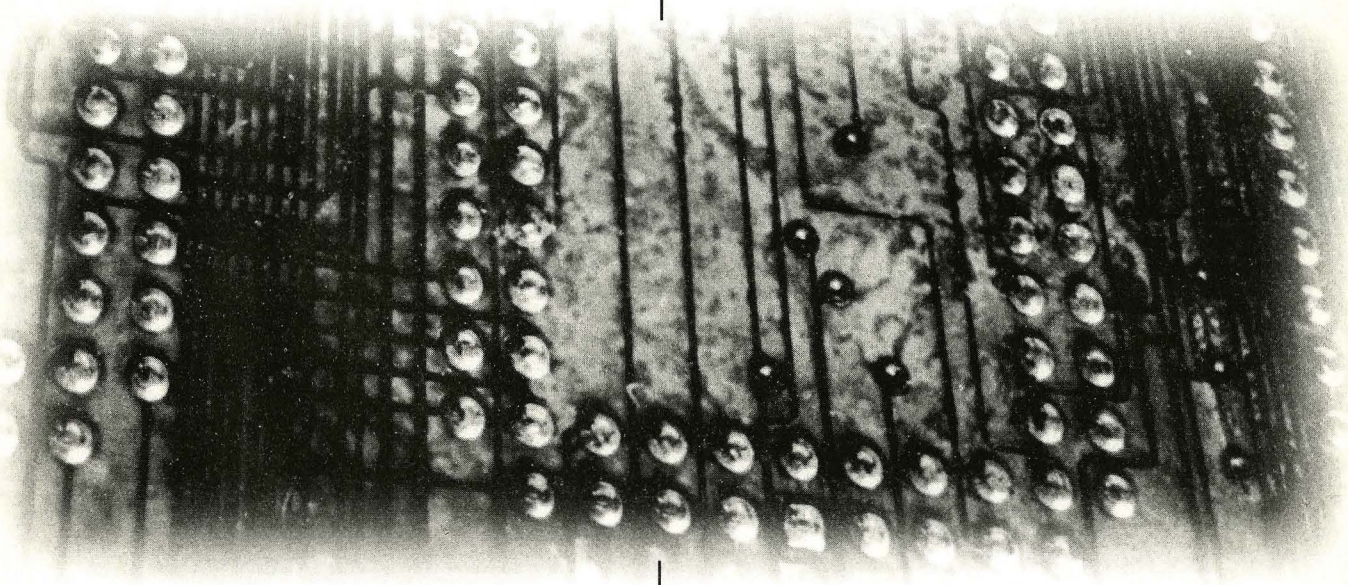
## Indiana Student Aid Programs

**Indiana State Grant Program** - Residents of Indiana are eligible to use their Indiana state grant award for attendance at Cincinnati State. Students apply for the Indiana State Grant by completing the FAFSA by March 1 of each year. Applications received after March 1st are generally not considered.

**Indiana Contract for Space Grant Program** - To be eligible for tuition assistance from the Indiana Contract for Space Program, a student must reside in one of the following six (6) Indiana counties: Dearborn, Franklin, Jefferson, Ohio, Ripley or Switzerland. Students must also be accepted for admission and enrolled in a program leading to an Associate Degree. A separate Indiana Contract for Space Grant Application must be completed and is available from the Financial Aid Office. Funds are limited. Students are encouraged to apply as soon after January 1 of each year, as possible.

Cincinnati State

T E C H N O L O G Y



f o r  y o u r  c a r e e r

# ACADEMICS, POLICIES & PROCEDURES

# Equal Opportunity

Cincinnati State Technical and Community College is committed to a policy of equal educational opportunities for all persons regardless of race, age, handicap, sexual orientation, national origin or gender. This policy is adopted as a matter of law and as a matter of educational policy consistent with the goals and purposes of the College.

The College also adheres to a policy of equal employment opportunity and affirmative action to end any illegal pattern of discrimination and to overcome the effects of past discrimination.

# Assessment of Student Academic Achievement

In 1994, the North Central Association of Colleges and Schools began requiring a plan for the assessment of student academic achievement from each of its member institutions. The purposes for assessment at Cincinnati State are to:

1) demonstrate that the institution is fulfilling its academic mission and
2) provide information to academic decision-makers for the continuous improvement of the teaching-learning process.

All students participate in assessment throughout their academic life at Cincinnati State. Beginning with placement testing, advisors and faculty work with students to assure that learning objectives are met and that knowledge gained in the classroom, labs, and through their cooperative work experience is applied and integrated into their working and personal lives. At the same time, Cincinnati State's assessment model collects information from employers, advisory committees, graduates, and other external constituencies that guides the development and implementation of its academic and technical programs. General education, cooperative education, and technical education each have an assessment component.

Because one of the primary purposes of assessment is to provide assurance that the College is meeting its academic mission, the foundation of Cincinnati State's assessment plan is built directly upon the mission of the College. The following section is the full text of Cincinnati State's mission, approved by the Ohio Board of Regents and the College's Board of Trustees.

# Mission

We believe that Cincinnati State Technical and Community College makes an important contribution to the technical and educational status, economic growth, and social well-being of the Tri-State Area. We believe that to continue to serve the community the College must be willing to modify, adapt, and create technical and transfer programs that meet the ever-changing needs of students, business, industry and the professional community. We believe that it is the College's role to help students to learn to think independently, to value logical and tested conclusions, to develop problem solving abilities, to communicate well, and to function effectively with other people. We believe in the dignity and worth of the individual and therefore provide educational opportunities for students regardless of age, economic or social background, or enrollment status. We believe that for continued growth we must display the ability to be creative, to look to the future as well as the past, to strive for excellence, and to exhibit leadership in the expansion of knowledge and skills through the achievements of the faculty and the students. We hope to develop in our students the desire to continue their education throughout their lives.

The College's principal concern is its students. This concern is reflected primarily through offering programs of substantial quality with the expectation that students will achieve a high level of competence and understanding in an atmosphere of positive engagement and mutual respect. In order to maintain this atmosphere, the College offers opportunities for students to achieve understanding and appreciation of their own culture and those of others in an environment that recognizes and values the cultural diversity of the College population and the community.

The College has a vital and distinctive mission to perform in addressing the educational and economic needs of the Tri-State Area. The College seeks to implement its philosophy by providing:

A. Education featuring a combination of theory and practice primarily through appropriate classroom, laboratory, and cooperative/clinical education experiences.
B. Technical, Arts, and Science Associate degree programs that lead to entry or advanced level employment and/or transfer to a Bachelor's degree program.
C. Certificate programs, specialized training, and adult continuing education opportunities of less than one-year duration.
D. Services and educational experiences to assist students in determining and reaching their educational objectives.
E. Opportunities for students to develop the skills needed to enter and succeed in the College's education programs.
F. Technical, science, arts, and general education courses that can be applied toward four-year degree programs.

The College endeavors to provide leadership and services in the promotion of technical, arts, science, and cooperative education.

# Cooperative Education Program Policies

The cooperative education program is an integral part of Cincinnati State's past growth, current strength, and continued success. The College's commitment to cooperative education is reflected in the curricula of most of the associate degree programs.

## Cooperative Education Requirements

Cincinnati State Technical and Community College values the cooperative education experience, but each division establishes its own policies regarding how the student may fulfill co-op requirements.

Students should refer to the academic division sections of this catalog for specific information on how the divisions expect students to meet cooperative education requirements.

## Meeting Academic Eligibility Requirements

To be eligible for placement in cooperative education employment (or clinical experience/directed practice), a student must maintain the required grade point average as stated in the College catalog (see "Academic Probation and Dismissal" in this section of the Catalog). The student must also demonstrate satisfactory proficiency in core or other required courses.

A student who does not maintain the required GPA will not be eligible for cooperative education or clinical experience/directed practice without the permission of the program coordinator.

Refer to the division sections of the catalog for additional requirements.

## Obtaining Cooperative Education Assignments

The College has been quite successful in placing most students in cooperative education jobs; however, there is no absolute guarantee of initial or continuing employment. The employer is solely responsible for decisions about hiring, retention, dismissal, promotion or demotion of a cooperative education student. Initial and continuing employment depends on the skills, aptitudes, and behaviors the individual student offers to each potential employer.

## Co-op Registration Policy

1. No student may report to his or her co-op job until he or she has registered and paid for co-op.
2. A student failing to register for co-op will not be eligible to receive co-op credit for that term.
3. Employers of co-op students who fail to register for co-op will be notified by the coordinator that the student no longer has co-op status. The employer has the option to allow the student to continue to work full-time without co-op status or terminate employment. This decision will be made by the employer.

## Withdrawal From Co-op/Clinical Experience

If a student is removed from a cooperative education or clinical experience course due to unsatisfactory performance, and the student subsequently withdraws from that course, the faculty member responsible for the course, with the approval of the division dean, may remove the "W" and assign a grade of "U" or "F."

# Other Academic Policies

## Grades and Credit Earned

### Grading System

The following system is used to record student achievement or status in courses:

| Grade | Explanation | Grade Point Value Per Credit Hour |
|---|---|---|
| A | Superior | 4 |
| B | Good | 3 |
| C | Average | 2 |
| D | Poor | 1 |
| F | Failure to complete course requirements | 0 |
| W | Withdrawal (Official) | Not Computed |
| AC | Advanced Placement Program Credit | Not Computed |
| CL | CLEP Credit | Not Computed |
| EC | Cincinnati State Proficiency Examination Credit | Not Computed |
| EL | External Certificate/Learning Exam | Not Computed |
| ET | External Formal Training Program | Not Computed |
| EX | Work Experience Credit | Not Computed |
| TP | Tech Prep Credit | Not Computed |
| I | Incomplete | Not Computed |
| K | Transfer Credit | Not Computed |
| N | No Grade Reported | Not Computed |
| S | Satisfactory | Not Computed |
| U | Unsatisfactory | Not Computed |
| VO | Vocational Teacher Referral Credit | Not Computed |
| X | Audit | Not Computed |

## Grade Reports

Grades are mailed to students at the current address on file with the Office of the Registrar at the end of each term. Grades are also accessible over the web. It is the student's responsibility to check his or her grades for accuracy. Any errors, discrepancies, or omissions should be reported to the instructor and/or division dean responsible for the course. Concerns of students should be made known within 30 days of the end of the term for which the grade was issued.

## Grade Changes

Changes to grades must be approved by the instructor who issued the grade, and must be submitted to the Office of the Registrar no later than two terms after the term in which the grade was originally issued.

## Calculation of Grade Point Average (GPA)

The College utilizes three grade point averages (GPA) for each student.

The cumulative GPA is calculated as the total quality points earned (Grade Point Value Per Credit Hour, listed above) divided by the total credit hours for courses bearing quality points attempted at the College.

The Term GPA is calculated as the total quality points earned (Grade Point Value Per Credit Hour, listed above) divided by the total credit hours for courses bearing quality points attempted for that term.

The Program GPA is calculated as the total quality points earned (Grade Point Value Per Credit Hour, listed above) divided by the total credit hours for all courses bearing quality points listed in the student's current audit curriculum.

The audit curriculum is the list of requirements the student must complete in order to earn a degree or certificate. Developmental Education courses beginning with "00" are not calculated in the GPA.

## Incomplete (I)

A grade of "I" (Incomplete) is awarded at the discretion of the

instructor. When unusual circumstances prevent a student from completing course requirements during the term in which the student is enrolled, the instructor may agree to record a grade of "I" until the final grade is established. Timetables and requirements for the completion of the course are the instructor's prerogatives. If a final grade has not been submitted to the Office of the Registrar by the last **instructional** day of the following term, a grade of "F" will be automatically recorded.

## Satisfactory/Unsatisfactory Grades (S/U)

"S" represents satisfactory performance, or "passing," in those courses graded satisfactory/unsatisfactory. Only the grades of A, B or C are considered passing on the satisfactory/unsatisfactory system.

## No Grade Reported (N)

An "N" grade is administratively assigned by the Office of the Registrar if no grades are reported for an entire section of a course. A grade of "N" is not issued to individual students by the instructor.

## Official Course Withdrawal (W)

A student who withdraws from a regularly-scheduled course after the Last Day to Drop a Course for the term through the 35th instructional day of the term will receive a grade of "W" for the course. Students who withdraw from a flexibly-scheduled course after the day designated as the Last Day to Drop a Course for that course section through the day designated as the Last Day to Withdraw from that course section will receive a grade of "W" for the course. The student must complete a withdrawal form in the Office of the Registrar. The date of withdrawal will be the time/date stamped in the Office of the Registrar. A "W" grade is not computed in the student's grade point average.

## Audit (X)

Students who are interested in taking a course solely for the value of the instruction may register to audit the course. No college credit may be earned or later claimed for an audited course. Regular tuition is charged for courses being audited. Requirements for attendance, completion of assignments, and examinations are the prerogatives of the instructor of the course.

A student may not request a transfer from "credit" to "audit" or vice versa after the Last Day to Drop a Course for the term.

## Advanced Standing Credit (AC, CL, EC, EL, ET, EX, VO, TP)

Advanced standing credit means that a student receives credit for completing a Cincinnati State course or cooperative education requirement by using one of the methods listed below to demonstrate successful completion of appropriate prior academic and/or work experience. Advanced standing credit is available to students who have been accepted into a degree or certificate program.

Students seeking advanced standing credit must follow the college and divisional procedures described in the *Cincinnati State Student Guide to Advanced Standing Credit.* This publication is available in the Office of the Registrar and in each academic division's main office.

The types of advanced standing credit are:

**External Proficiency Examination.** Credit may be awarded for Advanced Placement (AP) scores of 3 or higher. Credit is shown on the student's record as "AC." Credit is awarded for College Level Examination Program (CLEP) scores of 480 or higher. Credit is shown on the student's record as "CL." The amount of credit given for external proficiency examination is determined by the appropriate academic department.

**Internal Cincinnati State Proficiency Exam.** Credit is shown on the student's record as "EC."

**Credit for Applicable Work Experience.** Credit is shown on the student's record as "EX."

**Credit for an External Certificate/Licensing Exam.** Credit is shown on the student's record as "EL."

**Credit for an External Formal Training Program.** Credit is shown on the student's record as "ET."

**Credit through Senior Vocational Teacher Referral.** Credit is shown on the student's record as "VO."

**Credit for Tech Prep Coursework.** Credit is shown on the student's record as "TP."

Some types of advanced standing credit are not available in some degree or certificate programs.

Students should make arrangements to apply for advanced standing credit as soon as possible after admission to a program.

The steps for obtaining advanced standing credit are:

1. The student obtains a Petition for Advanced Standing Credit from the Office of the Registrar.
2. The student meets with his/her program chair or academic advisor to determine eligibility for advanced standing credit, and to determine which faculty member should receive the completed Petition and supporting documentation.
3. If necessary, the student pays the advanced standing credit fee at the College Cashier's Office, and the Petition is marked "paid." This step applies to students seeking advanced standing credit either through internal proficiency exams or through documented valid academic or work experience. There is a separate fee charged for each attempt to earn credit through an internal proficiency exam.
4. The student submits the completed Petition and supporting documentation (if required) to the appropriate faculty member, as determined in Step 2.
5. After the Petition and related materials have been reviewed by appropriate division personnel, and the request for advanced standing credit has been approved or disapproved, the Petition is forwarded to the Office of the Registrar and the student is notified of the results.

Students cannot earn credit through an exam for a course already completed at Cincinnati State. A course is defined as "completed" if a grade of A, B, C, D, F, S, U, or W has been issued. Students cannot earn credit through an exam during a term in which a No Show designation has been assigned for the course (see page 33).

Additional information is contained in the *Cincinnati State Student Guide to Advanced Standing Credit.*

## Transfer of Credit

Once a student is accepted in a degree or certificate program, official transcripts from previously attended colleges and universities submitted for admission will be forwarded to the Office of the Registrar for transfer of credit evaluation. Only coursework earned at a regionally-accredited institution with a grade of "C" or better will be acceptable in transfer. Once the evaluation of transfer work is completed, the student will receive, by mail, a Transfer Evaluation Report, which lists all

credits awarded in transfer and what equivalent courses have been assigned at Cincinnati State. In the event that no equivalent course at Cincinnati State can be assigned, the transfer course will be accepted as elective credit. Whether or not courses accepted as elective credit are applicable to the student's degree or certificate program is at the discretion of the program chair or academic advisor.

In situations where coursework is five years old or older, or where requisite skills may have been lost, courses previously taken at other institutions will be subject to review by the faculty and dean of the division that offers the equivalent course(s). Those courses reviewed which do not meet current program requirements and standards will not count towards degree or certificate requirements.

Transfer credit accepted at Cincinnati State will appear on a student's transcript as a cumulative number of hours accepted.

## Dean's List

Students who earn in one term 12 or more credit hours for academic courses for which quality points are awarded will qualify for Dean's List status if their GPA for the current term is 3.5 or greater and no grades of I, F, or U have been earned in the current term. Developmental Education courses beginning with "00" are not included in GPA calculations for the Dean's List.

Students who earn in one term between 6 and 11 credit hours of academic courses for which quality points are awarded will qualify for Academic Merit status if their GPA for the current term is 3.5 or greater and no grades of I, F, or U have been earned in the current term. Developmental Education courses beginning with "00" are not included in GPA calculations for Academic Merit.

Students who receive a grade of "N" will not initially be eligible for Dean's List or Academic Merit. To be eligible for Dean's List or Academic Merit, the grade change for the "N" grade must be submitted to the Office of the Registrar by the end of the 10th instructional day of the following term. Grade changes for "N" grades submitted after the 10th instructional day of the following term will not be recalculated for Dean's List or Academic Merit status. Recalculation for Dean's List and Academic Merit status will be done only for "N" grades issued for the immediately preceding term and only if the grade change is submitted by the deadline.

For all students, the GPA for the term will be calculated by taking the total quality points (grade point value per credit hour) awarded during the term, divided by the total credit hours for courses bearing quality points that are attempted during the term.

# Academic Probation, Suspension and Dismissal

Cincinnati State students enrolled in degree or certificate programs must maintain a record of satisfactory academic performance in order to remain in good standing at the College. Students who are not able to maintain satisfactory academic performance will be placed on Academic Probation, and if their work does not improve, may be subject to Academic Suspension and/or Academic Dismissal from the College.

A student cannot graduate from a degree or certificate program while on Academic Probation or Academic Suspension.

**Academic Probation**

- A full-time student (enrolled for 12 or more credits hours in one term) will be placed on Academic Probation when the student's Term Grade Point Average is 1.0 or below.
- A full-time or part-time student will be placed on Academic Probation when the student's Cumulative Grade Point Average falls below one of the following levels:

| Total Credit Hours Attempted | Cumulative GPA |
|---|---|
| 1 to 35 | 1.75 |
| 36 or more | 2.00 |

A student placed on Academic Probation is subject to the following conditions:

1. The student must meet with his or her program chair/advisor to determine a plan for academic success. The program chair/advisor may consult with a Cincinnati State professional counselor and may require the student to meet with a counselor to discuss potential for success in the student's current degree or certificate program. This meeting must occur in the term immediately after the student is placed on Probation.
2. The student will not be permitted to register for additional classes without written verification that meetings with the program chair/advisor and counselor (if required) have taken place.
3. The student may not register for more than 12 credit hours per term. This maximum may be extended to 14 credit hours with written permission from the student's program chair/advisor.
4. The student is not eligible to register for cooperative education or clinical education/directed practice.

**Removal from Probation**

A student who is placed on Academic Probation will be reevaluated at the end of each of the following two terms.

- To be removed from Probation status, the student's Term GPA and Cumulative GPA both must be 2.00 or higher.
- If a student's Term GPA is 2.00 or higher, but the student's cumulative GPA is less than 2.00, the student will remain on Probation. A student will continue to be considered on Probation as long as the student's Cumulative GPA is less than 2.00.

**Academic Suspension**

A student who is on Probation will be placed on Academic Suspension if the student's Term GPA is less than 2.00 for two terms.

A student placed on Academic Suspension may not register for any degree or certificate courses at Cincinnati State for two terms following the term after which they were placed on Suspension.

A student may appeal the assignment of Suspension status through a written request to the dean of the division from which the student was suspended. The written request must include a rationale for the appeal, and supporting documentation.

**Readmission after Suspension**

A student who is readmitted to the College after Suspension is subject to the following conditions:

1. The student must meet with his or her program chair/advisor to determine a plan for academic success.
2. The student may not register for more than 12 credit hours per term. This maximum may be extended to 14 credit hours with written permission from the student's program chair/advisor.
3. The student must maintain a Term GPA of 2.00 or greater every term. The student will continue to be considered on Probation as long as the student's Cumulative GPA is less than 2.00.

**Second Suspension**

A student who has been readmitted to the College after Academic Suspension, and who does not maintain a Term GPA of 2.00 or greater, will be placed on Second Suspension.

A student placed on Second Suspension may not register for any degree or certificate courses at Cincinnati State for five terms following the term after which they were placed on Second Suspension.

A student may appeal the assignment of Second Suspension status through a written request to the dean of the division from which the student was suspended. The written request must include a rationale for the appeal, and supporting documentation. The dean will convene a review committee to consider the request.

**Readmission after Second Suspension**

A student who is readmitted to the College after Second Suspension is subject to the following conditions:

1. The student must meet with his or her program chair/advisor to determine a plan for academic success.

2. The student may not register for more than 12 credit hours per term. This maximum may be extended to 14 credit hours with written permission from the student's program chair/advisor.

3. The student must maintain a Term GPA of 2.00 or greater every term. The student will continue to be considered on Probation as long as the student's Cumulative GPA is less than 2.00.

**Academic Dismissal**

A student who has been readmitted to the College after Second Suspension, and who is then placed on Probation for two consecutive terms will be Academically Dismissed from the College.

A student who has been Academically Dismissed may not register for any degree or certificate courses at Cincinnati State.

## Administrative Withdrawal

A matriculated student who fails to enroll for five (5) consecutive terms will be administratively withdrawn. In such a case, the student must reapply for admission to a program and will be subject to re-evaluation and to any change of degree requirements during his or her absence. The re-admitting process is done in the Admission Office.

# Registration

Students must enroll and make payment arrangements with Cincinnati State for their enrollment to be official.

Students have the option of registering in person in the Office of the Registrar, through a touch-tone telephone, or over the web. Please refer to the Term Bulletin for details for using a touch-tone telephone or the web.

Registration for a term usually begins four weeks before the term begins.

For specific dates of registration and information regarding touch-tone and web registration, please refer to the Term Bulletin or contact the Office of the Registrar at (513) 569-1522.

## Enrollment Verification

Students may submit enrollment verification request(s) to the Office of the Registrar. Depending on the information requested, Enrollment Verifications may take up to five (5) days to process.

Enrollment status is determined by the official number of credit hours for which a student is registered each term. Enrollment status often is used to help determine eligibility for financial aid, veterans benefits, company and agency funding, and health benefits.

Students are responsible for knowing their enrollment status and understanding the impact of changing credit hours by the add/drop process.

Generally, Cincinnati State will define a student's enrollment as follows:

| | |
|---|---|
| Full-Time Enrollment | 12 or more credit hours or full-time cooperative education placement |
| 3/4 Time Enrollment | 9 - 10 - 11 credit hours |
| 1/2 Time Enrollment | 6 - 7 - 8 credit hours |
| Less than Half-Time Enrollment | 5 or fewer credit hours |

Students placed on a part-time cooperative education placement are not considered half-time students for the purpose of enrollment verification.

## Completing More Than One Degree ("Double Major")

When a student is admitted to the College he or she is considered to be seeking only one academic degree or certificate. In some cases, students may seek to "double major" by pursuing more than one associate degree in an area that is closely related to their initial degree program.

To be considered for a "double major," a student must first be admitted to an associate degree program. (Students who are seeking a certificate rather than a degree are not eligible to apply for "double major" status.)

To be considered for a "double major," a student must apply for admission to the second program by completing a form available from the Office of Admission. The academic division in which the student seeks the second major will determine whether the student is eligible to pursue the second major.

Students who are granted "double major" status are expected to consult regularly with their program advisor (or advisors) to ensure that they are making appropriate progress in their degree programs.

Students with questions or concerns about their academic status or goals should consult with their program advisor, or with the Admission and Counseling Office.

## Changing Degree Programs

Students who wish to transfer from one degree or certificate program to another must complete a Change of Degree Program form and submit it to the College Admission Office.

**Calculation of Program GPA for a Student Who Transfers to a New Degree Program -** When a student transfers from one degree or certificate program to another, all courses attempted that apply to the new audit curriculum, with the exception of cooperative education courses, will automatically transfer to the new program. The new program's audit curriculum will serve as the basis for calculating the program grade point average.

Additional transfer of courses to the new program, including cooperative education courses, will be evaluated by the divisional faculty and dean on an individual basis.

## Repeated Course

If a course is repeated, only the highest grade is computed in the calculation of the GPA. If a student earns the same grade upon repeating a course, only one grade will be computed in the calculation of the GPA. The original course grade will continue to be shown on the transcript even though it is not calculated in the GPA.

A student who has received a grade of "F," "W," or an equivalent grade twice for the same course cannot register for the course a third time without written permission of the student's program chair/advisor. The program chair/advisor may require the student to meet with a Cincinnati State professional counselor to discuss potential for success in the student's current degree or certificate program.

# Academic Reassessment Policies

## Fresh Start and Forgiveness

Cincinnati State recognizes that in some circumstances students may seek an opportunity to have their grade point averages (cumulative and program) adjusted to reflect their academic success in their current program. Two methods are available for seeking reassessment:

- Fresh Start applies to a student who is returning to Cincinnati State after an absence of three years or more.
- Academic Forgiveness applies to a student who has been attending Cincinnati State continuously, or who is returning to Cincinnati State after an absence of less than three years.

**Both of these methods of academic reassessment are one-time, non-reversible options. These options do not apply to courses previously applied to an Ohio Board of Regents-authorized degree or certificate earned at Cincinnati State.**

### Fresh Start

The Fresh Start policy allows a student who is returning to Cincinnati State after an absence of three or more years a one-time, non-reversible option to have his or her cumulative grade point average and program grade point average recalculated by removing courses in which the student received a grade of "D," "F" or "V" which are no longer applicable to the student's current degree or certificate program.

To be eligible for a Fresh Start, a student must first have completed all re-admission procedures and requirements, be admitted to an OBR-authorized degree or certificate program, have completed all developmental education and any other prerequisite courses that apply to the program, and be enrolled beyond the fifteenth calendar day of the term for which the Fresh Start is requested.

The steps for obtaining a Fresh Start are:

1. The student meets with his or her program chair or academic advisor and completes a Petition for Fresh Start, available in each division office. The Petition includes a list of the courses in which the student received a grade of "D," "F" or "V" that will no longer be calculated in the student's cumulative and program grade point averages, for one or more of these reasons:
   - The course taken previously is not part of the audit curriculum for the student's current program.
   - The course taken previously pertains to technical skill/knowledge that is not up-to-date.
2. The student submits the completed Petition to the Office of the Registrar. A student wishing to apply for Fresh Start must submit the petition within two terms of re-enrolling at Cincinnati State after an absence of three or more years.
   - A Petition will not be approved if submitted by a student who has 12 credits or fewer to complete in a degree program.
3. When the Petition is approved, this statement will be added to the student's transcript: "The Fresh Start policy has been applied to academic work at Cincinnati State prior to (term/year of Petition approval)." The student's cumulative grade point average and program grade point average will be recalculated based on the new set of applicable courses.

The Fresh Start policy can be applied only once, and it cannot be reversed.

Students planning to transfer to another college or university are cautioned that the receiving institution may use all grades earned in computing grade point averages for admission or other purposes.

### Academic Forgiveness

The Academic Forgiveness policy allows any Cincinnati State student a one-time, non-reversible option to have his or her cumulative grade point average and program grade point average recalculated by forgiving up to 18 credit hours of coursework in which a grade of "D," "F" or "V" was earned.

To be eligible for Academic Forgiveness, a student must be currently admitted to an OBR-authorized degree or certificate program and must have completed all prerequisite courses that apply to the student's current degree or certificate program.

The steps for obtaining Academic Forgiveness are:

1. The student meets with his/her program chair or academic advisor and completes a Petition for Academic Forgiveness, available in each division office. The Petition includes a list of the courses that will be forgiven.
2. The student submits the completed Petition to the Office of the Registrar. The Petition must be submitted to the Office of the Registrar by the Last Day to Drop a Course for the term in which the initial evaluation is to be done.
3. Petitions are evaluated at the end of the term. For the Petition to be approved, the student must complete a minimum of 12 additional credits, while maintaining a term GPA of 2.0 or better. Only courses earning quality points (grade point value per credit hour) are applicable for the 12 additional credits. Developmental Education courses beginning in "00" and co-op courses are not applicable.
   - A Petition will not be approved if submitted by a student who has 12 credits or fewer to complete in a degree program.
   - If a student has not completed 12 credits at the end of the term in which the Petition is submitted, the Petition will be held in the Office of the Registrar, and will be reviewed again at the end of each term until the student completes the required 12 credits.
   - If a student submits a Petition after the Last Day to Drop a Course for the term, the courses being taken during that term will not be applied to the required 12 credits, and the Petition will not be evaluated until the end of the following term.
4. When the Petition is approved, this statement will be

added to the student's transcript: "Academic Forgiveness has been applied to academic work at Cincinnati State prior to (term/year of Petition approval)." The student's cumulative grade point average and program grade point average will be recalculated based on the new set of applicable courses.

The Academic Forgiveness policy can be applied only once, and it cannot be reversed.

Students planning to transfer to another college or university are cautioned that the receiving institution may use all grades earned in computing grade point averages for admission or other purposes.

# Academic Procedures

## Academic Appeals Procedure

Cincinnati State Technical and Community College has adopted the following procedures to ensure that students with legitimate concerns about academic processes (hereafter called "academic appeals") can resolve these concerns equitably. A student is expected to attempt to resolve concerns directly with the instructor.

1. A student is expected to bring his or her academic appeal first to his or her faculty advisor (program chair or cooperative education coordinator).
2. If the concern cannot be settled at this level, the student is expected to bring his or her academic appeal to the division dean or the dean's designee.
3. It is expected that most academic appeals will be resolved at the division level. However, if the concern cannot be resolved by the division dean, the student may continue the academic appeals process by meeting with an academic appeals panel. To initiate this process, the student must submit a written request to appeal the decision of the division dean, including a statement of the concern that is to be addressed, and pertinent documentation, to the Academic Vice President. The Academic Vice President will review all pertinent information in order to determine if the appeal merits the formation of a panel. If the Academic Vice President determines that an appeals panel should appropriately be formed, the process continues with step four. If the Academic Vice President does not feel the student's appeal merits the formation of a panel, he will meet with the student involved and relay his findings and recommendations.
4. If an academic appeals panel is convened, it will be composed of one dean (excluding the dean of the division involved in the appeal), appointed by the Academic Vice President; and two faculty members, appointed by the Faculty Senate. The designated dean will chair the panel, solicit appointment of the faculty representatives, convene meetings of the panel, and provide copies of necessary documentation to the other panel members. Documentation will include:
   a. The student's written statement and other material the student wishes to submit.
   b. A written summary of the disposition of the case at the division level, prepared by the division's dean.
   c. The student's transcript, or any other related materials the panel may wish to examine.
5. The chair will convene a meeting that includes the student, the members of the panel, and other participants the panel may choose to invite to the meeting. The student will have an opportunity to present his or her concern, and the panel members will have the opportunity to ask questions and seek clarification. If the panel determines there are issues involved which are not academic concerns, the panel will inform the student of appropriate measures to be taken.
6. The panel may, at its own discretion, refer the matter to the Academic Policies & Curriculum Committee (APCC) for advice and recommendations.
7. If the APCC is to be convened to review the appeal, the panel chair must ensure that all related documentation is submitted to the APCC chair one week prior to the APCC meeting. Any recommendations made by the APCC will be submitted to the academic appeals panel for consideration.
8. The chair of the academic appeals panel will forward a recommendation along with all related documentation to the Academic Vice President (chief academic officer) of the College. The chief academic officer will make the final determination regarding the appeal and will notify the dean of the division involved in the appeal. That dean will communicate this determination to the student who initiated the appeal.

## Attendance

Each student is expected to attend all classes and cooperative education/clinical placements as scheduled. Each College faculty member is expected to take attendance at every class section, in accordance with a resolution of the College Board of Trustees. Attendance in cooperative education and clinical placements is reported by the Cooperative Education/Clinical Coordinator based on reports from the student's site coordinator.

Individual faculty members may establish course policies that consider attendance as a factor in determining course grades. Each student should check with his or her instructors to determine how attendance will be taken and in what ways, if any, attendance is a factor in grading.

A student who enrolls in a course but does not attend any classes during the first two weeks will be designated by the instructor as a No Show (NS).

Additional policies related to attendance appear in the next section under point 6, "Non Attendance."

## Adding, Dropping or Withdrawing from a Course

The College Term Bulletin lists the dates when students may add, drop or withdraw from a course after completing their initial registration. Add, drop or withdrawal transactions are not official unless processed on the touch-tone or web registration system or the appropriate form has been processed by the Office of the Registrar. The appropriate forms for registration activity can be obtained in the Office of the Registrar. The following regulations apply to all courses offered during the term:

1. Adding a course:
   a. Prior to the first course meeting of the term, no approval is required to enter an opened course with no instructor consent requirement;
   b. Once a course has met, the approval of the instructor of the course must be obtained.
   c. From the seventh through the fourteenth calendar day of

the term, the approval of the instructor and dean are required to register for a course. In an instance when the seventh calendar day falls on a weekend or holiday, the last day to enter a course will be the preceding day.

d. The fourteenth calendar day of the term is the last day to enter a course.

2. Dropping a course:
   a. Courses dropped from the time of registration through the fourteenth calendar day of the term do not need additional approval to be processed.
   b. The fourteenth calendar day of the term is the last day to drop a course. In an instance when the fourteenth day falls on a weekend or holiday, the last day to drop a course will be the preceding day.
3. Withdrawing from a course:
   a. The Withdrawal period for regularly scheduled courses begins each term the day after the Last Day to Drop a Course and ends on the 35th instructional day. The Withdrawal period for flexibly scheduled courses begins after the day designated as the Last Day to Drop a Course for that course section through the day designated as the Last Day to Withdraw from that course section. No additional approval is required to withdraw from a course during this period.
   b. Only in circumstances beyond the student's control will a Withdrawal be permitted after the 35th instructional day. All official withdrawals must be approved by the instructor of the course and the division dean. In cases not approved, the student will receive the grade assigned by the instructor.
4. Course Drop/Withdrawal Grading Policy
   a. Through the fourteenth calendar day of each term, courses officially dropped in the Office of the Registrar will not appear on students' transcripts.
   b. During the Withdrawal Period, official withdrawals will be assigned a grade of "W." The "W" will appear on the student's transcript, however will not be calculated into the grade point average.
   c. The instructor may not issue a "W" as the final grade. A "W" is assigned only if the student has completed the withdrawal process in the Office of the Registrar.
5. Flexibly Scheduled Courses-the following policies and procedures pertain to Flexibly Scheduled Course Sections only:
   a. Course sections with a beginning and/or ending date different than the first and last days of the normal term schedule are considered flexibly scheduled. Flexibly Scheduled Course Sections are identified in the course schedule with an alphabetical section designation.
   b. Students may register for a flexibly scheduled course section with no additional approvals up to the first course meeting.
   c. A student may enter a flexibly scheduled course section by the date established as the Last Day to Enter a Course for that course section. Registrations beyond the date established as the Last Day to Enter a Course for that flexibly scheduled course section should not be permitted.
   d. A student may drop a flexibly scheduled course section without a grade appearing on their record by the date established as the Last Day to Drop a Course for that course section.
   e. A student may withdraw from a flexibly scheduled course section from the date established as the Last Day to Drop a Course for that section through the date established as the Last Day to Withdraw from a Course for that section.
6. Non-Attendance. The following policies apply to all courses.
   a. Instructors are required to document student attendance in each course meeting throughout the term.
   b. From the first day of the term until the First Day to Withdraw for the term, students who drop or withdraw from a course must identify whether or not they attended the course section.
   c. A student who enrolls in a course but does not attend the course within the first two weeks will be designated a No Show (NS) by the instructor.
   d. If there is a discrepancy between a student's self-reported attendance and the attendance status reported by an instructor, the attendance status reported by the instructor will be the status of record.
   e. Students are not permitted to begin attending a course section after a No Show (NS) has been issued by the instructor or self-reported by the student for that course section.
   f. The designation of No Show (NS) will not appear on the student's transcript.
   g. A student who receives a No Show (NS) designation for a course is still financially responsible for payment for the course. Federal Financial Aid is not applicable to a course for which a student has received a No Show (NS) designation.

A student is not permitted to withdraw from a course he or she did not attend or to which a No Show (NS) has been assigned.

## Procedures for Students Called to Active Duty

A student enlisted in the military reserves or National Guard who is called to active duty and who cannot complete his or her coursework for a given term may drop or withdraw from all courses by doing any of the following:

Please Note: All Drops/Withdrawals/Late Withdrawals will be processed in accordance with the College-wide attendance policy.

<u>During the Drop Period</u>

(First day of the term through the Last Day to Drop a Course):

• IN-PERSON

Presenting a copy of the military orders to the Office of the Registrar and completing an In-person Registration Activity Form dropping all of his/her courses. For the drops to be processed, the student must indicate whether or not he/she attended each course. If the student attended the course, he/she must provide the last date he/she attended the course.

• BY FAX

Faxing a copy of the military orders and a request to be dropped from all courses to the Office of the Registrar at (513) 569-1883. In the request, the student must state whether or not he/she attended each course. If the student attended the course, he/she must provide the last date he/she attended the course. Staff in the Office of the Registrar will complete the In-person Registration Activity Form on the student's behalf, attach the military orders and drop the student from all of his/her registered courses.

• BY MAIL

Mailing a copy of the military orders and a request to be dropped from all courses to the Office of the Registrar. In the request, the student must state whether or not he/she attended each course. If the student attended the course, he/she must

provide the last date he/she attended the course. Staff in the Office of the Registrar will complete the In-person Registration Activity Form on the student's behalf, attach the military orders and drop the student from all of his/her registered courses.

• DESIGNEE

A family member or friend may present the military orders to the Office of the Registrar and request the student be dropped from all of his/her courses. If possible, the student should inform his/her designee whether or not they attended each course. If the student attended the course the student should provide the date they last attended. In such an instance, staff in the Office of the Registrar will complete the Withdrawal form on behalf of the student, attach the military orders and (if needed) obtain the Last Date of Attendance from the instructor.

During the Withdrawal Period:

• IN-PERSON

Presenting a copy of the military orders to the Office of the Registrar and completing a Course Withdrawal Form withdrawing from all of his/her courses. For the Withdrawal to be processed, the student must indicate whether or not he/she attended each course. If the student attended the course, he/she must provide the last date he/she attended the course.

• BY FAX:

Faxing a copy of the military orders and a request to be withdrawn from all courses to the Office of the Registrar at (513) 569-1883. In the request, the student must state whether or not he/she attended each course. If the student attended the course, he/she must provide the last date he/she attended the course. Staff in the Office of the Registrar will complete the Course Withdrawal Form on the student's behalf, attach the military orders and drop the student from all of his/her registered courses.

• BY MAIL

Mailing a copy of the military orders and a request to be withdrawn from all courses to the Office of the Registrar. In the request, the student must state whether or not he/she attended each course. If the student attended the course, he/she must provide the last date he/she attended the course. Staff in the Office of the Registrar will complete the Course Withdrawal Form on the student's behalf, attach the military orders and drop the student from all of his/her registered courses.

• DESIGNEE

A family member or friend may present the military orders to the Office of the Registrar and request the student be withdrawn from all of his/her courses. If possible, the student should inform his/her designee whether or not they attended each course. If the student attended the course the student should provide the date they last attended. In such an instance, staff in the Office of the Registrar will complete the Course Withdrawal Form on behalf of the student, attach the military orders and (if needed) obtain the Last Date of Attendance from the instructor.

After the Withdrawal Period:

• IN-PERSON

Present to the Office of the Registrar a copy of the military orders. The student will then be given a Request for Late Withdrawal Form to complete to withdraw from all of his/her courses. The student must state whether or not he/she attended each course. If the student attended the course, he/she must provide the last date he/she attended the course. The student will be permitted to withdraw from all of his/her courses based on the military order without being required to obtain the instructor and dean's approval.

• BY FAX

Faxing a copy of the military orders and a request to be withdrawn from all courses to the Office of the Registrar at (513) 569-1883. In the request, the student must state whether or not he/she attended each course. If the student attended the course, he/she must provide the last date he/she attended the course. Staff in the Office of the Registrar will complete a Request for Late Withdrawal on the student's behalf and the student will be withdrawn from all of his/her courses. The student will be permitted to withdraw from all of his/her courses based on the military order without being required to obtain the instructor and dean's approval.

• BY MAIL

Mailing a copy of the military orders and a request to be withdrawn from all courses to the Office of the Registrar. In the request, the student must state whether or not he/she attended each course. If the student attended the course, he/she must provide the last date he/she attended the course. Staff in the Office of the Registrar will complete a Request for Late Withdrawal on the student's behalf and the student will be withdrawn from all of his/her courses. The student will be permitted to withdraw from all of his/her courses based on the military order without being required to obtain the instructor and dean's approval.

• DESIGNEE

A family member or friend may present the military orders to the Office of the Registrar and request the student be withdrawn from all of his/her courses. If possible, the student should inform his/her designee whether or not they attended each course. If the student attended the course the student should provide the date they last attended. In such an instance, staff in the Office of the Registrar will complete the Request for Late Withdrawal Form on behalf of the student, attach the military orders and (if needed) obtain the Last Date of Attendance from the instructor. The student will be permitted to withdraw from all of his/her courses based on the military order without being required to obtain the instructor and dean's approval.

• In an instance where there is not time for the student to complete the Late Withdrawal process prior to departure, the student will have 30 business days from his/her return to present his/her orders and receive the automatic Late Withdrawal. If the orders are not presented with that time period, the Request for Late Withdrawal will not be accepted.

## Scheduling of Classes

Weekday classes are scheduled to begin any time from 7:00 a.m. to 8:30 p.m. Some courses are regularly offered on Saturday and occasionally a course will be offered on Sunday.

In the event of adverse conditions, it may be necessary to cancel some classes. The College will rarely close completely.

Local radio and television stations may begin announcing Cincinnati State's operating status as early as 6:15 a.m. on the day involved.

The status of the evening classes will be handled by a separate announcement in the afternoon.

## Make-Up

The privilege of making up missed assignments, quizzes, tests, exams, and other course activities is not automatic.

An instructor does not have to permit or grant make-up privileges. However, if an instructor permits make-up examinations,

a Test Make-Up Service is available through the Tutoring Center in Room 253. Hours for make-up exams are posted in the Tutoring Center and all arrangements between the instructor and the Testing Service must be made in advance. This service is a convenience to students and to faculty; a small fee may be charged for each make-up examination. Fee information is available in the Tutoring Center. Students should check with the classroom instructor to determine if the service is available for their course(s).

## Faculty Office Hours

All full-time College faculty maintain office hours. Students should check with each instructor, or the receptionist in the instructor's division office area, for appointments.

## Children on Campus

Cincinnati State Technical and Community College strives to maintain an environment conducive to teaching and learning. Therefore, whenever children are brought to the campus they must remain with their parents, guardians, or caretakers in all areas of the College. Whether or not a child can be brought into a classroom will be at the discretion of each instructor.

If the College's campus security officers find any child left unattended, they will locate the parent/caretaker so that the child can be cared for properly. Above all else, the College wishes to insure the safety and well being of each child.

## Academic Evaluations

Upon completion of a Request for Academic Records, which is available in the Office of the Registrar, an Academic Evaluation of an admitted student's degree/certificate requirements will be provided. Please allow one working day for processing.

## Requesting College Transcripts from Cincinnati State

To obtain a copy of the college transcript, the student's request must be submitted in writing. The request may be made in person, by mail, or by FAX. All requests must include name, student ID or social security number, dates attended and the address to which the transcript must be sent. Students wishing to pick up the processed request must provide that information. Requests must include the student's signature authorizing the College to release this information.

To request the transcript in person, the Office of the Registrar is open Monday through Thursday 8:00 a.m. until 7 p.m. and Friday, 8:00 a.m. until 5:00 p.m. Forms are available in the office.

To request the transcript by mail, please mail the request to:

Office of the Registrar
Cincinnati State Technical and Community College
3520 Central Parkway
Cincinnati, OH 45223-2690

Requests may be faxed to: (513) 569-1883.

*Please note:*

- Students who have attended Cincinnati State 1986 or after may request an official or unofficial transcript be printed for them while they are in the Office of the Registrar.
- Students who need their official transcript sent directly from the Office of the Registrar may request a transcript be sent to an individual or other institution designated by the student. Please allow five working days for staff to process such requests.
- Students who have attended Cincinnati State prior to 1986 may request an official or unofficial transcript. If the student needs an official transcript sent directly from the Office of the Registrar he or she may request a transcript be sent to an individual or other institution designated by the student. Because all or part of records prior to 1986 may be on microfilm, please allow ten working days for staff to process such requests.

There is no charge for any transcript request (official or unofficial). For questions regarding ordering transcripts, please call the agent line of the Office of the Registrar, 513-569-1522 and choose the transcript help line.

## College ID Cards

Every enrolled student is required to have a College ID with them at all times for security purposes. The card is required to use Library services, the Open Computer Lab, the Fitness Center and to attend College sports activities. These cards are available in the Student Activities Office. The cost of obtaining a card is $1.00 payable at the Cashier's Office.

# State of Ohio Policy for Institutional Transfer

The Ohio Board of Regents, following the directive of the Ohio General Assembly, developed a statewide policy to facilitate students' ability to transfer credits from one Ohio public college or university to another in order to avoid duplication of course requirements. Since independent colleges and universities in Ohio may or may not be participating in the transfer policy, students interested in transferring to independent institutions are encouraged to check with the college or university of their choice regarding transfer agreements.

The Ohio Board of Regents' Transfer and Articulation Policy established the Transfer Module, which is a subset or entire set of a college or university's general education program. Transfer Module contains 54 to 60 quarter hours (or 36-40 semester hours) of course credits in the following areas: English, Mathematics, Arts and Humanities, Social and Behavioral Sciences, Natural and Physical Sciences, and Interdisciplinary Study.

A Transfer Module completed at one college or university will automatically meet the requirements of the Transfer Module at another college or university once the student is admitted. Students may be required, however, to meet additional general education requirements at the institution to which they transfer. For example, a student who completes the Transfer Module at Institution S (sending institution) and then transfers to Institution R (receiving institution) is said to have completed the Transfer Module portion of Institution R's general education program. Institution R, however, may require additional general education courses beyond the Transfer Module.

Since many degree programs require specific courses that may be taken as a part of the general education or Transfer Module program at an institution, students are encouraged to meet with an academic advisor at the institution to which they

plan to transfer early in their academic career. For example, students who will be majoring in any of the majors in the College of Business and Administration at the receiving institution should take Economics 201, 202, and 203 (or equivalent course at another institution) rather than the Economics 200 course listed as a part of the Transfer Module. Because of specific major requirements such as these, early identification of a student's intended major is encouraged. Advisors at the institution to which a student wishes to transfer should be consulted regarding Transfer Module and general education courses and any specific program requirements that can be completed before transfer.

## Conditions for Transfer Admission

1. The policy encourages receiving institutions to give preferential consideration for admission to students who complete the Associate of Arts or Associate of Science degree with a cumulative grade point of 2.0 or better for all previous college level courses.
2. The policy also encourages receiving institutions to give preferential treatment to students who have not earned an Associate of Arts or Associate of Science degree but have earned 60 semester hours or 90 quarter hours with a cumulative grade point of 2.0 or better for all previous college level courses.
3. The policy further encourages that students who have not earned an Associate of Arts or Associate of Science degree or who have not earned 60 semester hours or 90 quarter hours with a cumulative grade point of 2.0 or better for all previous college level courses are eligible for admission as transfer students on a competitive basis.

## Acceptance of Transfer Credit

1. Students who have completed the Associate of Arts or Associate of Science degree with a cumulative grade point of 2.0 or better will receive transfer credit for all college level courses in which a grade of "D" or better has been earned.
2. Students who have not earned an Associate of Arts or Associate of Science degree will receive transfer credit for all college level courses in which a grade of "C" or better has been earned.

Admission to a given institution, however, does not guarantee that a transfer student will be automatically admitted to all majors, minors, or fields of concentration at the institution. Once admitted, transfer students shall be subject to the same regulations governing applicability of catalog requirements as all other students. Furthermore, transfer students shall be accorded the same class standing and other privileges as all other students on the basis of the number of credits earned. All residency requirements must be successfully completed at the receiving institution prior to the granting of a degree.

## Responsibilities of Students

In order to facilitate transfer with maximum applicability of transfer credit, prospective transfer students should plan a course of study that will meet the requirements of a degree program at the receiving institution. Specifically, students should identify early in their collegiate studies an institution and major to which they desire to transfer. Furthermore, students should determine if there are language requirements or any special course requirements that can be met during the freshman or sophomore year. This will enable students to plan and pursue a course of study that will articulate with the receiving institution's major. Students are encouraged to seek further information regarding transfer from both their advisor and the college or university to which they plan to transfer.

## Appeals Process

A student disagreeing with the application of transfer credit by the receiving institution shall be informed of the right to appeal the decision and of the process for filing the appeal. Each institution shall make available to students the appeal process for that specific college or university.

If a transfer student's appeal is denied by the institution after all appeal levels within the institution have been exhausted, the institution shall advise the student in writing of the availability and process of appeal to the state-level Articulation and Transfer Appeals Review Committee.

The Appeals Review Committee shall review and recommend to institutions the resolution of individual cases of appeal from transfer students who have exhausted all local appeal mechanisms concerning applicability of transfer credits at receiving institutions.

## Cincinnati State Transfer Module Appeal Process

Should a student transferring into Cincinnati State be dissatisfied with the credit awarded as part of the transfer module program of the State of Ohio, an internal appeal process and an external appeal process are both available.

The internal appeal process must be utilized first. At Cincinnati State, the appropriate internal appeal process is that described by the College Academic Appeals Procedure, contained in this section of the Catalog.

The external appeal process may be utilized only after the internal appeal process has been completed and the student remains dissatisfied with the institution's judgement. The external appeal will be conducted by the Statewide Appeals Review Committee. More information on this process is available from the Ohio Board of Regents in Columbus, Ohio.

# Graduation Requirements

To qualify for the associate degree, a student must be admitted to a degree program, complete the program requirements as identified in the audit curriculum, attain at least a 2.0 cumulative and program GPA, and petition to graduate.

Completion is defined as earning the grade A, B, C, D, or S for any course. An earned D may not count toward graduation, depending on program and/or division policies.

As a part of the graduation requirements for the Associate of Applied Business, Associate of Applied Science, Associate of Individualized Study, and Associate of Technical Study degrees, a student must complete at least 21 credit hours in the communication skills/social sciences areas, distributed as follows:

- Communication Skills - 12 credits
  - 9 credits written communication
  - 3 credits oral communication

• Social/Behavioral Sciences - 9 credits, selected from at least two of these areas: psychology, economics, sociology, government relations, geography, history, literature, philosophy, fine arts, interdisciplinary studies.

## College Orientation Requirement

Beginning in Early Fall 2001, all Cincinnati State students who are enrolled in degree or certificate programs are required to complete the college orientation course CAR 9002, College Success Strategies. This requirement does not apply to degree-seeking or certificate-seeking students who have already successfully completed 18 or more credits of college-level courses at Cincinnati State (not including Developmental Education courses), or have received transfer credit for equivalent courses.

The course CAR 9002 introduces students to the college experience and to Cincinnati State's expectations and resources for new students. This course earns college credit, but it does not fulfill general studies or core course requirements for degree or certificate programs. Students must complete the orientation course requirement within the first 18 credit hours taken at Cincinnati State.

## Residency Requirement

Students seeking a degree at Cincinnati State Technical and Community College, except those seeking the Associate of Technical Studies degree or other special training programs, must complete at least 45 credit hours of college-level, non-co-op/non-clinical credit hours at Cincinnati State. Credit hours earned in courses which combine class and lab hours will be considered "non-clinical" credit hours for the purpose of the residency requirement.

Students seeking an Associate of Applied Business or Associate of Applied Science degree must earn a minimum of fifty-percent of college-level, non-co-op-/non-clinical technical coursework (as identified in the Associate Degree Program Summary) required for their program at Cincinnati State. The resident credit hours required for the degree program are applicable to the College Residency Requirement.

Students seeking a certificate at Cincinnati State Technical and Community College must complete a minimum of fifty-percent of their certificate program requirements at Cincinnati State.

Advanced Standing Credit is not applicable to the College Residency Requirement. Credit earned at Cincinnati State through the Greater Cincinnati Consortium of Colleges and Universities is applicable to the College Residency Requirement.

In Associate of Technical Study and Associate of Individualized Study programs, the residency requirement shall be no less than 30 credits at Cincinnati State.

Students who transfer to Cincinnati State from another accredited Ohio college or university with a completed Transfer Module are subject to the guidelines in the "State of Ohio Policy for Institutional Transfer" statement found elsewhere in this section of the Catalog.

## Certificate Programs

To qualify for a certificate, a student must be admitted to a certificate program, fulfill the certificate program requirements as identified in the audit curriculum, attain at least a 2.0 cumulative and program GPA, and petition to graduate. The residency requirement for certificate-seeking students is the same as the requirement for degree-seeking students, as stated above.

## Graduation Petition

A student must file a graduation petition in order to graduate. Any matriculated student may file a graduation petition when he or she has earned and/or transferred in a combined total of seventy (70) credit hours towards an associate degree and a combined total of forty (40) credit hours towards a one-year certificate. A less than one year certificate should be turned in according to the schedule below and corresponding with when the student will complete the certificate. The petition must be filed in the Office of the Registrar twenty (20) weeks prior to the date of completed coursework.

| ***Term**** *Dates Petitions Accepted* | *** Petitions Not Accepted After* | *Graduation Date* |
|---|---|---|
| **Summer 2001** (6/25/01 - 8/27/01) March 19 to April 20 | July 9 | August 27, 2001 |
| **Early Fall 2001** (9/4/01 - 11/6/01) May 29 to July 2 | September 18 | November 6, 2001 |
| **Late Fall 2001** (11/13/01 - 1/28/02) August 6 to September 10 | November 27 | January 28, 2002 |
| **Winter 2002** (2/4/02 - 4/8/02) October 15 to November 16 | February 15 | April 8, 2002 |
| **Spring 2002** (4/15/02 - 6/17/02) January 7 to February 8 | April 29 | June 17, 2002 |
| **Summer 2002** (6/24/02 - 8/26/02) March 18 to April 19 | July 8 | August 26, 2002 |

***Term in which all coursework is completed.**

**** Petitions submitted during this period will have a preliminary review conducted by the program chair/advisor. Petitions submitted after this period will only have a final review conducted at the end of the term for which the student submitted.**

## Participation in Commencement

Students may participate in the annual commencement ceremonies if they meet the following requirements:

1. The student has satisfactorily completed all requirements for a degree or one-year certificate.
2. The student has not previously participated in a Cincinnati State graduation ceremony.
3. The student has filed a Petition to Graduate in the Office of the Registrar by the published deadline.
4. The student has submitted an Intent to Participate in Graduation form to the Student Activities Office.

## Graduation Honors

Associate degree candidates who earn at least 45 credit hours at Cincinnati State and achieve a cumulative grade point average of 3.50 or higher will graduate with honors. Honors are classified as follows:

Cum Laude 3.50 - 3.79
Magna Cum Laude 3.80 - 3.89
Summa Cum Laude 3.90 - 4.00

Students who complete their degree requirements in the term following commencement (Summer Term) are eligible for honors at commencement only if the remaining requirements are courses that do not affect GPA calculations, such as cooperative education and internship courses.

# Student Conduct Policy

## (Ohio Administrative Code, Rule 3357: 4-1-100, Student Code of Conduct).

While it is impossible to write a code of conduct that takes into account every type of behavior, the Cincinnati State Technical and Community College Board of Trustees has adopted standards for student conduct which try to ensure that the College provides an environment in which all students, visitors, faculty and staff respectively can study and grow, visit, teach and conduct college business in a positive manner. Copies of the complete Code are available in the office of the Dean of Student Services, Room 168.

A. Generally, College jurisdiction and discipline shall be limited to conduct which occurs on College premises or which adversely affects the College Community and/or the pursuit of its objectives.

Any behavior contrary to civil law and/or behavior which interferes with the College's maintenance of order or its educational process is forbidden. Such behavior may result in disciplinary probation, suspension, dismissal, expulsion, withholding of transcripts or other appropriate action.

B. The decision as to whether a specific kind of behavior is a violation will rest with the College administration. Any student found to have committed the following (but not exclusive) examples of misconduct is subject to the disciplinary sanctions outlined in Article IV of the College's "Student Code of Conduct":

1. Acts of dishonesty, including but not limited to the following:
    a. Cheating, plagiarism, or other forms of academic dishonesty;
    b. Furnishing false information to any College official, faculty member or office;
    c. Forgery, alteration, or misuse of any College document, record, or instrument of identification;
    d. Tampering with the election of any College-recognized student organization.
2. Disruption or obstruction of teaching, research, administration, disciplinary proceedings, other College activities, including its public-service functions on or off campus, or other authorized non-College activities, when the act occurs on College premises.
3. Physical abuse, verbal abuse, threats, intimidation, harassment, coercion and/or other conduct which threatens or endangers the health or safety of any person.
4. Attempted or actual theft of and/or damage to property of the College or property of a member of the College Community or other personal or public property.
5. Hazing, defined as an act which endangers the mental or physical health or safety of a student, or which destroys or removes public or private property, for the purpose of initiation, admission into, affiliation with, or as a condition for continued membership in a group or organization.
6. Failure to comply with directions of College officials or law enforcement officers acting in performance of their duties and/or failure to identify oneself to these persons when requested to do so.
7. Unauthorized possession, duplication, or use of keys to any College premises or unauthorized entry to or use of College premises.
8. Violation of published College policies, rules, or regulations.
9. Violation of federal, state, or local law on College premises or at College-sponsored or supervised activities.
10. Use, possession or distribution of narcotic or other controlled substances except as expressly permitted by law.
11. Use, possession or distribution of alcoholic beverages except as expressly permitted by the law and College regulations, or public intoxication.
12. Illegal or unauthorized possession of firearms, explosives, other weapons, or dangerous chemicals on College premises.
13. Participation in a campus demonstration which disrupts the normal operations of the College and infringes on the rights of other members of the College Community; leading or inciting others to disrupt scheduled and/or normal activities within any campus building or area; intentional obstruction which unreasonably interferes with freedom of movement, either pedestrian or vehicular, on campus.
14. Obstruction of the free flow of pedestrian or vehicular traffic on College premises or at College-sponsored or supervised functions.
15. Conduct which is disorderly, lewd, or indecent; breach of peace; or aiding, abetting, or procuring another person to breach the peace on College premises or at functions sponsored by, or participated in by the College.
16. Abuse of the Judicial System, including but not limited to:
    a. Failure to obey the summons of a judicial body or College official;
    b. Falsification, distortion, or misrepresentation of information before a judicial body;
    c. Disruption or interference with the orderly conduct of a judicial proceeding;
    d. Institution of a judicial proceeding knowingly without cause;
    e. Attempting to discourage an individual's proper participation in, or use of, the judicial system;
    f. Attempting to influence the impartiality of a member of a judicial body prior to, and/or during, and/or after a judicial proceeding;
    g. Harassment (verbal or physical) and/or intimidation of a member of a judicial body prior to, during and/or after a judicial proceeding;
    h. Failure to comply with the sanction(s) imposed under the Student Code;
    i. Influencing or attempting to influence another person to commit an abuse of the judicial system.

Effective: August 16, 1992
Promulgated under: Chapter 111.15 Ohio Revised Code.
Amplifies Chapter 3345.21 Ohio Revised Code.
Modifies Rules 3357.4-1-98 and 3357.4-52

# Information Technology Services (ITS) Policy

## Policy on Responsible Use of Computing Resources

### General Statement About Responsible Use of Computing Resources

Cincinnati State Technical and Community College acquires, develops, and maintains computers, computer systems, and networks. These computing resources are intended for college-related use, including direct and indirect support of the College's instruction, research, and service missions; of College administrative functions; of student and campus life activities; and of the free exchange of ideas.

The rights of free expression and academic freedom apply to the use of College computing resources. So, too, however, do the responsibilities and limits associated with those rights. All who use the College's computing resources must act responsibly, in accordance with the highest standard of ethical and legal behavior. Thus, legitimate use of computing resources does not extend to whatever is technically possible. Users must abide by all applicable restrictions, whether or not they are built into the operating system or network and whether or not they can be circumvented by technical means.

This policy applies to all users of College computing resources, whether affiliated with the College or not, and to all users of those resources, whether on campus or from remote locations. Additional policies may apply to specific computers, computer systems or networks provided or operated by specific units of the College or to uses within specific units.

### Policy Regarding Responsible Use of Computing Resources

**All College computing resource users must:**

**1. Comply with all federal, Ohio and other applicable law; all generally applicable College rules and policies; and all applicable contracts and licenses.** Examples of such laws, rules, polices, contracts, and licenses include: the laws of libel, privacy, copyright, trademark, obscenity, and child pornography; the Electronic Communications Privacy Act and the Computer Fraud and Abuse Act, which prohibit "hacking", "cracking", and similar activities; the College's code of student conduct; the Cincinnati State Technical and Community College Administrators' Manual, Faculty Handbook, the College's sexual harassment policy; and all applicable software licenses. In particular, users must:

A. Respect the right of others to be free from harassment or intimidation to the same extent that this right is recognized in the use of other communication; and

B. Respect copyrights, intellectual-property rights, ownership of files and passwords. Unauthorized copying of files or passwords belonging to others or to the College may constitute plagiarism or theft. Accessing or modifying files without authorization (including altering information, introducing viruses or Trojan horses, or damaging files) is unethical, may be illegal, and may lead to sanctions.

Users who engage in electronic communications with persons in other states or countries or on other systems or networks should be aware that they may also be subject to the laws of those other states and countries and the rules and policies of those other systems and networks. Users are responsible for ascertaining, understanding, and complying with the laws, rules, policies, contracts, and licenses applicable to their particular uses.

Cincinnati State extends these policies and guidelines to systems outside the College that are accessed via the College's facilities (e.g., electronic mail or remote logins using the College's Internet connections).

**2. Use only those computing resources that they are authorized to use and use them only in the manner and to the extent authorized.** Ability to access computing resources does not, by itself, imply authorization to do so. Users are responsible for ascertaining what authorizations are necessary and for obtaining them before proceeding. Accounts, passwords, and other authentication mechanisms, may not, under any circumstances, be shared with, or used by, persons other than those to whom they have been assigned by the College.

**3. Respect the finite capacity of those resources and limit use so as not to consume an unreasonable amount of those resources or to interfere unreasonably with the activity of other users.** Although there is no set bandwidth, disk space, CPU time, or other limit applicable to all uses of College computing resources, the College may require users of those resources to limit or refrain from specific uses in accordance with this principle. The reasonableness of any particular use will be judged in the context of all of the relevant circumstances.

**4. Limit the personal use of College computing resources and refrain from using those resources for personal commercial purposes or for personal financial or other gain.** Personal use of College computing resources is permitted on a limited basis when it does not interfere with the performance of the user's job or other College responsibilities, and is otherwise in compliance with this and other College policy. This usage does not include links to personal web pages. This usage is subject to monitoring by the ITS staff. Further limits may be imposed upon personal use in accordance with normal supervisory procedures.

**5. Refrain from stating or implying that they speak on behalf of the College and from using college trademarks and logos without authorization to do so.** Affiliation with the College does not, by itself, imply authorization to speak on behalf of the College. Authorization to use College trademarks and logos may be granted only by Cincinnati State. The use of appropriate disclaimers is encouraged. Personal web pages linked to the College Web should disclaim association with Cincinnati State.

### Enforcement of the Policy Regarding Responsible Use

Whenever it becomes necessary to enforce College rules or policies, an authorized administrator may: disallow network connections by certain computers (even departmental and personal ones); require adequate identification of computers and users on the network; undertake audits of software or information on shared systems where policy violations are possible; take steps to secure compromised computers that are connected to the network; or deny access to computers, the network, and institutional software and databases.

## Sanctions Regarding Misuse of Computing Resources

Users who violate this policy may be denied access to College computing resources and may be subject to other penalties and disciplinary action, both within and outside of the College. Violations will normally be handled through the College disciplinary procedures applicable to the relevant user. Alleged violations by students will normally be investigated, and the Student Services Office will normally impose any penalties or other discipline.

However, the College, through its information managers, may suspend or block access to an account prior to the initiation or completion of such procedures; when it reasonably appears necessary to do so, and in order to protect the integrity, security, or functionality of College or other computing resources; or to protect the College from liability.

The College may also refer suspected violations of applicable law to appropriate law enforcement agencies.

## Privacy and Security Issues Regarding Responsible Use of Computing Resources

The College employs various measures to protect the security of its computing resources and users accounts. However, users should be aware that the College does not and cannot guarantee such security.

Users should also be aware that their uses of College computing resources are not private. While the College does not routinely monitor individual usage of its computing resources, the normal operation and maintenance of College computing resources requires the backup and caching of data and communications, the logging of activity, the monitoring of general usage patterns, and other such activities that are necessary for the rendition of service. Systems or technical managers, as part of their technical responsibility, may occasionally need to diagnose or solve problems by examining the contents of particular files.

The College may also monitor the activity and accounts of individual users of College computing resources, including individual sessions and communications, without notice (a) when the user has voluntarily made them accessible to the public, as by posting to Usenet or a web site; (b) when it reasonably appears necessary to do so to protect the integrity, security, or functionality of College or other computing resources or to protect the College from liability; (c) when there is reasonable cause to believe that the user has violated, or is violating, this policy; (d) when an account or device appears to be engaged in unusual or unusually excessive activity, as indicated by the monitoring of general activity and usage patterns; or (e) when it is otherwise required or permitted by law.

Any such individual monitoring, other than that specified in "(a)", or required by law, or necessary to respond to perceived emergency situations, must be authorized in advance by the Chief Information Officer (CIO) or a designee of same.

The College, in its discretion, may disclose the results of any such general or individual monitoring, including the contents and records of individual communications, to appropriate College personnel or law enforcement agencies and may use those results in appropriate College disciplinary proceedings. Communications made by means of College computing resources are also generally subject to Ohio's Public Records Statute to the same extent as they would be if made on paper.

## The User's Responsibilities

**1. Be aware of the limits of computer security.** Although the College employs various measures to protect the security of its computing resources and user accounts, users should be aware that the College cannot guarantee such security. Users should therefore engage in "safe computing" practices by establishing appropriate access restrictions for their accounts, guarding their passwords, and changing them regularly.

**2. Be responsible for backing up and protecting personal files.** Although the College under certain circumstances may provide storage space and under certain circumstances that storage may be backed up, Cincinnati State assumes no responsibility for the loss or recovery of personal files.

## The College's Responsibilities

The College owns various computers and all of the internal computer and wireless networks used on campus. The College also has various rights to the software and information residing on, developed on, or licensed for, these computers and networks. The College has the responsibility to administer, protect, and monitor this aggregation of computers, software, and networks. Specifically, purposes of the College's information technology management are to:

1. Manage computing resources so that members of the College community benefit equitably from their use.
2. Protect College computers, networks and information from destruction, tampering, and unauthorized inspection and use.
3. Communicate College policies and the responsibilities of individuals systematically and regularly in a variety of formats to all parts of the College community.
4. Establish and support reasonable standards of security for electronic information that community members produce, use, or distribute. Standards for security and access are elaborated in the document titled "Cincinnati State Technical and Community College Computing Security Policy," as well as in documents derived from it.
5. Establish and support reasonable standards of security for electronic information that community members produce, use, or distribute. Standards for security and access are elaborated in the document titled "Cincinnati State Technical and Community College Computing Security Policy," as well as in documents derived from it.
6. Monitor policies and propose changes in policy as events or technology warrant.

# Sexual Harassment Policy

Cincinnati State Technical and Community College affirms its commitment to ensuring an environment for all employees and students which is fair, humane and respectful—an environment which supports and rewards employee and student performance on the basis of relevant considerations such as ability and effort. Behaviors which inappropriately assert sexuality as relevant to employee or student performance are damaging to this environment.

Title VII of the Civil Rights Act of 1969 and Title IX of the Educational Amendments of 1972 as interpreted by Federal Regulation prohibit sexual harassment.

**Definition**

Sexual favors may not be required explicitly or implicitly as a term or condition of an individual's employment or student sta-

tus. The submission to or rejection of sexual favors may not be used as a basis for employment or educational decisions. Sexual conduct which has the purpose or effect of unnecessarily interfering with an individual's work or student performance or creating an intimidating, hostile or offensive working or educational environment is prohibited.

Such conduct may include:

- verbal harassment or abuse
- subtle pressure for sexual activity
- sexist remarks about a woman's or man's clothing, body, or sexual activities
- unnecessary touching, patting, or pinching
- leering or ogling of a woman's or man's body
- constant brushing against a woman's or man's body
- demanding sexual favors accompanied by implied or overt threats concerning one's job, grades, letters of recommendation, etc.
- physical assault

# Substance Abuse Policy

Cincinnati State Technical and Community College prohibits the unlawful manufacture, possession, use or distribution of drugs on its property or as a part of its activities. Cincinnati State also prohibits the use or possession of alcoholic beverages on campus property except as authorized by campus policy. Students and staff may be accountable to both civil authorities and to the College administration for drug and alcohol related actions which are a violation of federal, state or local laws, or the College policy as stated below. In 1989, the College Board of Trustees approved a Drug Free Workplace policy found below.

**Policy For Drug-Free Workplace: 89.49**

The unlawful manufacture, distribution, dispensing, possession or use of a controlled substance is prohibited in the Cincinnati State workplace. Employees who violate this prohibition will be subject to disciplinary action up to and including immediate discharge.

All employees are obligated to the terms of this policy and must notify their immediate supervisor of conviction for any criminal drug statute violation occurring in the workplace no later than five days after such conviction.

Each employee of the College will receive a written copy of this POLICY STATEMENT regarding a Drug-Free Workplace and will be notified that, as a condition of employment, he or she must abide by this POLICY STATEMENT and notify the employer of any criminal drug statute conviction for a violation occurring in the workplace not later than five days after such conviction.

Upon receiving notice that an employee who is engaged in the performance of a federal contract has had any criminal drug statute conviction for a violation occurring in the workplace, Cincinnati State will notify the federal contracting agency within ten days. The College will impose a sanction on, or require participation in a drug abuse assistance/rehabilitation program by the convicted employee.

Substance abuse is a serious problem in our society. In response to this problem, Cincinnati State offers the following educational activities and personal assistance to all members of the campus community.

- An annual distribution of this statement to all students and employees of the College.
- Health/Wellness Information is available in the hall outside the Admission Office.
- The Department of Athletics and Student Activities has an alcohol/drug education assistance program for athletes.
- Two College-wide workshops on issues dealing with substance abuse are held during each academic year.
- Information and literature on substance abuse is available in the Counseling Center, room 168.
- Students, as well as faculty and staff members who may have alcohol or other substance abuse problems, may receive confidential counseling and referral to appropriate community agencies from the counselors in the Counseling Center, room 168, or employees may contact the Office of Human Resources for assistance.

Early recognition, intervention and treatment for substance abuse is necessary to avoid detrimental effects to physical and mental health. Health risks associated with substance abuse include, but are not limited to:

- Physical dependence
- Psychological dependence
- Alterations in the body's immune system
- Digestive problems
- Liver complications
- Neuropsychological complications
- Nutritional deficiencies
- Certain cancers
- Cardiovascular complications
- Respiratory complications
- An increased risk of contracting AIDS
- Deterioration in learning ability, memory and judgment
- Placental transfer resulting in low birth weight, mental retardation, congenital malformation and neonatal addiction
- Moral deterioration
- Deterioration of personal relationships

Death may result from continued substance abuse.

## Alcohol and the Law

You have a responsibility to follow the laws of your city, state and nation. If you fail to live up to that responsibility, you may face certain penalties. Some of the potential legal consequences of committing an alcohol related criminal offense are listed in this statement.

**Underage Consumption, Purchasing or Possession of Alcohol**

The legal drinking age in Ohio for consumption of an alcoholic beverage is 21 years old. Anyone purchasing, possessing or consuming alcohol prior to their 21st birthday is guilty of a first degree misdemeanor. The maximum penalties associated with this offense are 6 months imprisonment or a $1,000 fine or both. A 20-year-old student, therefore, risks being imprisoned and fined when he or she decides to drink alcohol.

**Providing Alcohol to an Underage Person**

A person who furnishes alcohol to an underage person is guilty of a first degree misdemeanor. The maximum penalties associated with this offense are 6 months imprisonment or $1,000 fine or both. A social host, therefore, risks being fined and imprisoned when he or she furnishes alcohol to a person he or she knows or should know is not 21 years of age.

**Fake ID**

Possession or display of a fictitious operators license is a first degree misdemeanor. The offense includes mere possession of a fictitious license or display of someone else's valid operators license. The maximum penalties for this offense are 6 months imprisonment or a $1000 fine or both. Moreover, if the fictitious operators license is utilized to purchase alcohol or enter an establishment that serves alcohol, the minimum fine must be at least $250 and the person displaying the fictitious operators license may have his or her valid operators license suspended for 3 years.

**Driving Under the Influence of Alcohol or Drugs (DUI)**

In Ohio, a person may not operate a motor vehicle if he or she is impaired by alcohol and/or drugs. The maximum penalties for operating a vehicle while under the influence are 6 months imprisonment (mandatory 3 days in jail) or a $1,000 fine or both. In addition, the operator must forfeit his or her driving privileges for 3 months.

**Open Container**

It is illegal to possess in public an open container of an alcoholic beverage. If convicted of this offense, the maximum penalty is a $100 fine. Consumption of alcohol in a motor vehicle is a fourth degree misdemeanor with maximum penalties of 30 days imprisonment or a $250 fine or both.

**Disorderly Conduct**

Disorderly conduct while intoxicated is a minor misdemeanor and carries a maximum penalty of a $100 fine. Disorderly conduct occurs when one recklessly causes inconvenience, annoyance or alarm to another due to offensive conduct.

## Federal and State Penalties for Sale and Possession

The Federal Government decides if and how a drug should be controlled. Psychoactive (mind-altering) chemicals are categorized according to Schedule I-V. This schedule designates if the drug can be prescribed by a physician and under what conditions. Factors considered in this categorization include a drug's known and potential medical value, its potential for physical or psychological dependence, and risk, if any, to public health. Penalties for the illegal sale or distribution of a drug are established using the designation of Schedule I-V. If you have knowledge of a felony you must report it to a law enforcement official.

**Schedule I** drugs have a high potential for abuse with no medical use. Production of these drugs is controlled. Examples include heroin, methaqualone, all hallucinogens (except phencyclidine-PCP), marijuana and hashish. Tetrahydrocannabinol (THC), depending on its form, can also be a schedule II drug.

**Schedule II** drugs have a high potential for abuse, but have some medical uses. Production of these drugs is controlled. Examples include opium, morphine, codeine, some other narcotics, barbiturates, cocaine, amphetamines, and phencyclidine (PCP).

Federal and State of Ohio penalties for selling Schedule I and II drugs vary with the quantity of the drug. Additionally, if death or serious injury is associated with the sale and/or if it is a second offense, penalties are more severe. When establishing penalties for sale, marijuana and hashish are separated from this designation according to the schedule. The penalties, however, are similar to those set for Schedule I and II drugs.

The Federal penalty for first offense sale of small amounts of Schedule I and II drugs is "not less that 4 years/not more than 40 years; if death or serious injury, not less than 20 years/not more than life; fine of not more than $2 million individual/$5 million other than individual."

In the State of Ohio the penalty for "delivery, possession with intent to deliver, and manufacture" of less than 25 grams is "mandatory 1 to 20 years; up to $25,000 or life probation." The penalty for possession of less than 25 grams is "up to 4 years, or fined up to $25,000 or both." Both are a felony. Use is a misdemeanor which has a penalty of "up to 2 years, $2,000 fine or both."

**Schedule III, IV and V** drugs include those that most citizens would categorize as "prescription drugs." Schedule III drugs have some potential for abuse, but less than I and II. The potential for abuse of Schedule IV drugs is less than Schedule III, and Schedule V is less than IV. All Schedule III-V drugs have medical uses and production is not controlled. Examples of these drugs include some narcotics, chloral hydrate (IV), barbiturates (III & IV), amphetamines (III), and other stimulants (III & IV).

The Federal penalty for first offense sale of a Schedule III drug is "Not more than 5 years; fine of not more than $250,000 individual/$1 million not individual." The Federal penalty for first offense sale of schedule IV drugs is "not more than 3 years." The fine is the same as for Schedule III drugs. The Federal penalty for first offense sale of Schedule V drugs is "not more than 1 year; fine of not more than $100,000 individual/$250,000 not individual."

Sale of some Schedule III drugs is a felony and has a State of Ohio penalty of "up to 7 years; or a fine up to $5,000; or both." State of Ohio penalty for sale of Schedule IV drugs is a felony and has a penalty of "up to 4 years; or a fine up to $2,000; or both." Sale of Schedule V drugs in the State of Ohio is also a felony and has a state penalty of "up to 2 years; or a fine up to $2,000; or both."

For further information on substance abuse and early intervention and treatment, contact the Counseling Center, room 161, (513) 569-1544, or the Office of Human Resource Services in room 177, (513) 569-1565.

# Student Conduct Violations and Hearing Procedure

Ohio Administrative
Code (O.A.C.) Rule 3357:4-1-100 Article IV, Judicial Policies.

A. Any member of the College community may file charges against any student for misconduct. Charges shall be prepared in writing and directed to the judicial advisor responsible for the administration of the College judicial system. Any charge should be submitted as soon as possible after the event takes place, preferably within forty-eight hours.

B. The judicial advisor may conduct an investigation to determine if the charges have merit and/or if they can be disposed of administratively by mutual consent of the parties involved on a basis acceptable to the judicial advisor. Such disposition shall be final and there shall be no subsequent proceedings. If the charges cannot be disposed of by mutual consent, the judicial advisor may later serve in the same matter as the judicial body or a member thereof.

C. All charges shall be presented to the accused student in written form. A time shall be set for a hearing, not less than five nor more than fifteen calendar days after the student has been notified. Maximum time limit for scheduling of hearings may be extended at the discretion of the judicial advisor.

D. Hearings shall be conducted by a judicial body according to the following guidelines:

(i) Hearings normally shall be conducted in private. At the request of the accused student, and subject to the discretion of the judicial advisor, a representative of the student press may be admitted, but shall not have the privilege of participating in the hearing.

(ii) Admission of any person to the hearing shall be at the discretion of the judicial body and/or its judicial advisor.

(iii) In hearings involving more than one accused student, the judicial advisor of the judicial body, in his/her discretion, may permit the hearings concerning each student to be conducted separately.

(iv) The complainant and the accused have the right to be assisted by any advisor they choose, at their own expense. The advisor may be an attorney. The complainant and/or the accused is responsible for presenting his or her case and, therefore, advisors are not permitted to speak or to participate directly in any hearing before a judicial body.

(v) The complainant, the accused and the judicial body shall have the privilege of presenting witnesses, subject to the right of cross examination by the judicial body.

(vi) Pertinent records, exhibits and written statements may be accepted as evidence for consideration by a judicial body at the discretion of the judicial body.

(vii) All procedural questions are subject to the final decision of the judicial advisor of the judicial body.

(viii) After the hearing, the judicial body shall determine (by majority vote if the judicial body consists of more than one person) whether the student has violated each section of the student code which the student is charged with violating.

(ix) The judicial body's determination shall be made on the basis of whether it is more likely than not that the accused student violated the student code.

E. There shall be a single verbatim record, such as a tape recording of all hearings before a judicial body. The record shall be the property of the College.

F. Except in the case of a student charged with failing to obey the summons of a judicial body or College official, no student may be found to have violated the student code solely because the student failed to appear before a judicial body. In all cases, the evidence in support of the charges shall be presented and considered.

## Student Complaint Procedures

Cincinnati State Technical and Community College has established procedures to address the violation of the rights of students. A complete copy of the procedures can be obtained from the Dean of Enrollment and Student Services. (Matters related to an appeal of academic decisions must first be handled through the Academic Appeals Procedure which is referred to elsewhere in this section of the Catalog.)

If a student feels that his or her rights have been, or are being, violated by another student or Cincinnati State staff, the following procedure is available:

Step 1 — The student should discuss the problem with his or her instructor or faculty advisor.

Step 2 — If the problem is not resolved at Step 1, a student complaint/referral form should be submitted to the Dean of Enrollment and Student Services, room 168. A copy of the form shall be forwarded to the Dean or manager of the person against whom the complaint is made for resolution.

Step 3 — If the complaint is not resolved at Step 2, the complainant may request a fact-finding hearing under the provisions of 3357:4-52 through the office of the Dean of Enrollment and Student Services.

# Release of Information

Cincinnati State Technical and Community College, in accordance with the Family Educational Right to Privacy Act of 1974 has designated the following information regarding its students as directory (public) information:

1. Name
2. Program
3. Participation in officially recognized activities and sports
4. Weight and height of members of intercollegiate athletic teams
5. Dates of Attendance
6. Degrees and awards received (this includes dates of graduation and major)
7. Most recent previous educational agency or institution attended.
8. Enrollment Status (part-time or full-time), including date(s) of change(s) in status if specifically requested.

This information may be released without the written consent of the student. All other information is confidential and will be released only with written consent from the student for legitimate College purposes or as otherwise required by law.

Students have the right to withhold directory information from the public if they desire. Each student who wants all directory information withheld is required to inform the Office of the Registrar in writing. At least 5 days should be allowed for processing such a request through the student information system.

Upon receipt of a written request to withhold directory information, the Office of the Registrar will place a Hold on the student's record alerting staff in the Office of the Registrar the student has requested that no information be provided. No information will be released, regardless of any authorizations the student has completed either before or after notification has been submitted to the Office of the Registrar.

Cincinnati State receives many inquiries for "directory information" from various sources, including prospective employers, insurance companies, loan agencies, other institutions of higher education, government agencies and news media. All students are advised to carefully consider the consequences of a decision to withhold directory information. If a student requests to have directory information withheld, the student will be required to provide written consent to the Office of the Registrar for any and all information to be released. **Students requesting that all directory information be withheld will not be able to register through the touch-tone registration service.**

Photographs and/or films of students for promotional and recruitment purposes are taken throughout the school year. Students who do not wish to be included in these visuals must inform the Director of Public Information prior to photographing and/or filming.

## Solomon Amendment

In compliance with the Solomon Amendment which became effective on April 1, 1997, Cincinnati State Technical and Community College must supply the following information (if captured) to representatives of any branch of Federal Armed Forces for the purpose of federal recruiting:

student name
address
telephone number
major
date and place of birth
level of education
degree(s) received
prior military experience
most recent previous education institution enrolled

Cincinnati State will only release this information without the student's written prior consent in compliance with the Solomon Amendment and upon written request of an official representative of the Federal Armed Forces. Please review the above section for information pertaining to the release of directory information.

# Notification of Rights under the Family Educational Rights and Privacy Act

The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their educational records. They are:

1. The right to inspect and review the student's education records within 45 days of the day that Cincinnati State Technical and Community College receives a request for access.

   Students should submit to the registrar, dean, program chair or other appropriate official, a written request that identifies the record(s) they wish to inspect. The College official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the College official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.

2. The right to request the amendment of the student's education records that the student believes are inaccurate or misleading.

   Students may ask the College to amend a record that they believe is inaccurate or misleading. They should write the College official responsible for the record, clearly identify the part of the record they want changed, and specify why it is inaccurate or misleading.

   If the College decides not to amend the record as requested by the student, the College will notify the student of the decision and advise the student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

3. The right to consent to disclosure of personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosure without consent.

   One exception which permits disclosure without consent is disclosure to schools officials with legitimate educational interests. A school official is:

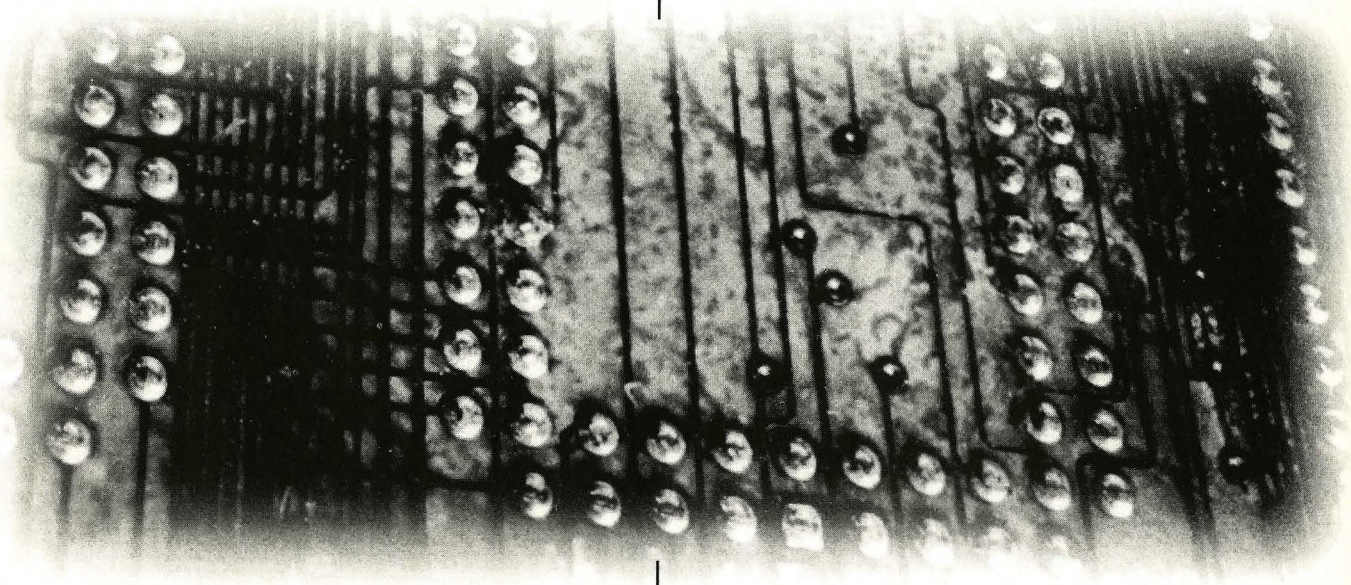
   - a person employed by the College in an administrative, supervisory, academic or research, or support staff position (including law enforcement unit personnel);
   - a person or company with whom the College has contracted (such as an attorney, auditor, or collection agent);
   - a person serving on the Board of Trustees;
   - or a student serving on an official committee, such as disciplinary or grievance committee, or assisting another school official in performing his or her tasks.

   A College official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility.

4. The right to file a complaint with the U.S. Department of Education concerning alleged failures by Cincinnati State Technical and Community College to comply with the requirements of FERPA. The name and address of the office that administers FERPA are:
   Family Policy Compliance Office
   U.S. Department of Education
   400 Maryland Avenue, SW
   Washington, DC 20202-4605

Cincinnati State

# T E C H N O L O G Y



# for your career

## STUDENT SERVICES

# Services for Students

An important part of the mission of the College is the adherence to the principles of student rights and freedoms, as amplified by the "Joint Statement on Rights and Freedoms of Students," which was formulated by representatives of the American Association of University Professors, United States Student Association, Association of American Colleges, National Association of Student Personnel Administrators, National Association for Women Educators, as well as a number of other professional bodies. These principles speak to the standards and responsibilities of the academic community to ensure student access to education; free discussion in the classroom; maintenance of student records; the freedom to form organizations that promote the common interests of students, and the freedom of inquiry and expression; student participation in institutional government; as well as expectations of student conduct, and the exercise of rights of citizenship. Complete copies of the statement are available from the Dean of Enrollment and Student Services.

Consequently, as a service to students and to the academic community, Cincinnati State Technical and Community College maintains a cadre of professional and support staff to help students in making meaningful decisions regarding admission to college, registering for classes, applying for financial aid, career and educational decision making, personal and social counseling as well as the participation in a variety of student activities and sports.

## Advising

Advisors are available to assist Pre-Admit/Pre-Tech students to a future of success at Cincinnati State. Advisors help students with:

- Developing an educational plan
- Setting academic goals
- Selecting appropriate courses (registering)
- Referring to and using College support services
- Clarifying career goals and answering questions about programs/majors
- Understanding College academic policies and procedures

## Counseling

The Counseling Center maintains a professional staff to assist students. All sessions are confidential and free of charge to all Cincinnati State students.

The following services are provided by the counseling staff:

**Counseling** — counsel students regarding personal, social, or academic problems or concerns, and crisis intervention.

**Career Counseling** — help students and potential students with career decisions and concerns through assessment, individual conferences and/or career development coursework, workshops, and the computerized guidance information system.

**Academic Advising** — provide advising to all non-major and visiting students.

**Admission Advising/Support** — advise students regarding general admission; assist students in choosing programs, and refer students to program chairpersons.

**Educational Transfer Counseling** — assist students interested in continuing their education at other colleges or universities.

**Referral Assistance** — help students make connection with appropriate campus resources and external agencies.

**Student Advocacy** — help students understand their rights and responsibilities and how to work through appropriate campus procedures.

**Workshops** — sponsor personal growth and academic skill development workshops in a variety of methods that will enhance the college experience.

If a situation develops beyond Counseling Center services, the student will be referred to an appropriate professional.

The Counseling Center is located in room 168. Office hours are 8:00 a.m. to 8:00 p.m. Monday through Thursday, and 8:00 a.m. to 5:00 p.m. on Friday.

## Disability Services

Disability Services will work with students to ensure they receive reasonable academic accommodations in courses of study. The major goal is to guarantee that all students with disabilities have an equal opportunity in the pursuit of their educational objectives. Services and programs are available for students according to their individual needs. Students who consistently use the resources and accommodation services earn higher grades and graduate at a higher rate than students who choose not to use them. For further information regarding these services, contact Disability Services in room 175, 569-1613.

## International Students

This office provides admissions, immigration and naturalization assistance. The International Student Coordinator assists students in adapting to the campus environment as well as seeking internal and external referrals.

## Student Support Services

Staff members in the Student Support Services Office work with first-generation, low income and/or disabled students who demonstrate an academic need. The goal of the program is to assist students in completing an associate degree or transfer to a baccalaureate program. Tutoring, mentoring and other support services are provided.

## Veterans

Cincinnati State Technical and Community College has a Veterans' Affairs Coordinator to aid persons attending school on V.A. benefits. The Veterans' Affairs coordinator will help students with official paperwork and information regarding benefits. All degree programs at Cincinnati State are approved by the State Approving Agency for Veterans Training. Upon being accepted by Cincinnati State, veterans should contact the Veterans Office for full information concerning application for Veterans' Educational Benefits.

Tutorial services can be arranged for veterans in need of academic assistance. The Department of Veteran's Affairs will reimburse the veteran for this cost. Fair and reasonable charges for this service will be determined by the Coordinator of Veterans' Affairs prior to approval of tutorial assistance.

Whenever possible, a student tutor will be utilized. However, when there is not a qualified student tutor available, the Veterans' Affairs Coordinator will attempt to find a qualified faculty tutor. Please contact the Veterans Office for further information.

The State Approving Agency for Veterans Training has approved Cincinnati State Technical and Community College for the education and training of veterans and all their dependents under all existing public laws. Inquiries concerning eligibility should be directed to the Coordinator of Veterans' Affairs in room 168.

# Student Activities

## Student Government

All Cincinnati State students are encouraged to attend Student Government meetings. The Student Government is involved in all student activities and acts as a liaison between students and the administration.

## Athletics

Cincinnati State currently competes in Division I of the National Junior College Athletic Association (NJCAA) in seven sports: women's and men's basketball, women's and men's soccer, women's volleyball, men's baseball and co-ed golf. All five teams regularly compete under the rules and regulations of the National Junior College Athletic Association Region XII (Indiana, Michigan and Ohio) and play a very competitive junior college schedule.

## Student Organizations

Students are encouraged to join the organizations that appeal to their academic and social interests.

Current student organizations on-campus are: Phi Theta Kappa, Business Professionals of America, Data Processing Management Association (Student Chapter), Junior Association of Les Chefs de Cuisine, Junior Craftsmen Club, Laser Institute of America, Occupational Therapy Association (Junior Chapter), Ohio Nurserymen's Association, Ornamental Horticulture Club, Professional Grounds Management Society, Professional Land Surveyors of Ohio, Society Manufacturing Engineers (Student Chapter 108), Cincinnati State Players Drama Club, Adult Learners on Campus, International Student Association, and United African American Association.

# Facilities

## Use of College Facilities

Students presenting a Cincinnati State I.D. card or other appropriate identification may use such facilities as the gymnasium, natatorium, weight room, library, student center, meeting rooms, etc. Such use is restricted to hours set aside for student use for free time recreation. These hours will not conflict with previously scheduled events, and may be subject to change because of short term scheduling of intramurals, athletics, community use, etc.

Students or student groups may lease on-campus facilities through the Office of the Director of Facilities. The use of facilities is outlined in the Facility Usage and Rental Guidelines.

## Smoking Policy

Cincinnati State Technical and Community College is a smoke-free facility, effective August 31, 1993. No smoking is permitted in any College owned or operated building. Students, employees and guests should extinguish smoking materials in receptacles provided at entrances to the building. The courtyard outside the College's main entrance, the small dock area near the courtyard, visitors entrance and the plaza in front of the Health Professions Building are also designated smoke-free.

All employees and students share in the responsibility for adhering to and enforcing this policy. Employees and students are expected to assist in the enforcement of this policy through the following actions: refraining from smoking inside the building and politely reminding persons who smoke inside the building to observe the College's policy.

## Johnnie Mae Berry Library

The Johnnie Mae Berry Library, named for the College's first librarian, includes Information Services and Media Services. The Library is open from 7:30 a.m. to 10:00 p.m. Monday through Thursday, 7:30 a.m. to 4:30 p.m. on Friday and 8:00 a.m. to 1:00 p.m. on Saturday. Professionals and associate staff members are available in both areas to provide assistance.

The Library's homepage is available on the World Wide Web at http://dogbert.cinstate.cc.oh.us and at various workstations throughout the facility. It provides access to BLINK, the Library's on-line catalog, and numerous links to a wide variety of sites which support the College's curriculum. Information Services provides assistance with locating information and using the College's reference, circulating books and periodical collection.

Students may check out circulating books for a three-week period by presenting a Cincinnati State I.D. card. There is no charge for the return of overdue material. However, if items are not returned within three weeks of the receipt of an overdue notice, students will receive a bill of at least $100 per book for the replacement cost of the book(s).

Cincinnati State is a member of the Ohio Library Information Network also known as OhioLINK. This network provides access to the online catalogs of colleges and universities throughout Cincinnati and Ohio. Reference and citation databases and some full-text journal articles are also available as well as access to the Internet. A service known as PCIRC, which allows a student to request a book from any other OhioLINK institution which owns it, is also available. Items are delivered within three days.

Media Services provides a variety of instructional support services to the College. Videotapes, films, slides, laser discs, etc., are available for students to view in the Library during Library hours.

The Library has two group study rooms, and a variety of tables, desks and carrels for individual study. Typewriters are also available for student use during Library hours.

To prevent damage to library material and equipment and to keep the facility free of vermin, consumption of food or drink is not allowed in any public area (including classrooms) of the Berry Library.

## William L. Mallory Child Development Center

The William L. Mallory Child Development Center is located on the Fourth Floor of the College. It offers a comprehensive program of child care for infants of six months and older through pre-kindergarten. The Center is operated by the Salvation Army and is available both day and evening. Students interested in placing children in the program should contact the director.

## Access to Greater Cincinnati Library Consortium (GCLC Libraries)

Cincinnati State students have access to a number of libraries in the area through the Greater Cincinnati Library Consortium. To use the member libraries, students must obtain a "GCLC Common Patron I.D." card from the Circulation Desk in the Berry Library. These I.D.s expire at the end of each term and must be renewed every term. Brochures that explain the Consortium and give information about the member libraries are available in the Berry Library.

## Student Bookstore

The bookstore is located on the first floor of Wing C. A complete supply of new texts and a limited supply of used books are available covering all the courses offered at the College. The store also carries a complete line of classroom supplies, calculators, and course related equipment and supplies.

Used books are purchased by the bookstore at any time during the year.

Books for which an exchange or refund is requested must be accompanied by the original receipt and presented to the College bookstore within one week after the beginning day of each term. If a student drops a course and wishes a refund within the established time frame, the student must show the bookstore personnel a copy of the drop/add form. Only books on approved technology book lists can be returned as used books and refunded accordingly

Regular hours of the Bookstore are Monday thru Thursday, 9:30 a.m. to 6:30 p.m.; Friday 9:30 a.m. to 4:00 p.m. During registration periods hours are extended.

## Dining and Vending Services

The cafeteria offers a wide selection of wholesome foods and refreshments.

Hours of operation are:

7:30 a.m. to 10:30 a.m. - Breakfast,
10:45 a.m. to 2:30 p.m. - Lunch
4:30 p.m. to 6:30 p.m. - Dinner

Vending facilities are open 6:30 a.m. to 10:00 p.m. daily in the first floor cafeteria area, the third floor student lounge, and on the second and third floor of the Health Professions Building. If necessary, refunds from vending facilities can be obtained from the cafeteria cashier.

## Gymnasium

The gymnasium is open only at designated times. A Cincinnati State I.D. is required to check out equipment. No food or drink are allowed in the gym.

## Pool

The pool is open to students and staff for free swimming Monday through Friday during designated hours.

## Fitness Center Rules

1. Students using the center must have Cincinnati State I.D.
2. Students must sign-in before using the center.
3. Students using the fitness center for the first time must sign a liability waiver.
4. No children allowed in the fitness center.
5. No food or drink allowed in the fitness center.
6. It is suggested that you have a towel while using the equipment.
7. No loitering in the fitness center.

### Pool and Gym Rules

1. Students using the center must have an I.D. card and drivers license and show them upon request
2. Food and drink will not be allowed in the gym, exercise room or pool.
3. No street clothes allowed in pool area.
4. No swimming suits allowed in other activities areas.
5. Students must present I.D. to lifeguard while using pool area.
6. Please place all cigarettes in ashtrays and all trash in trash containers.
7. I.D.s must be presented to use equipment.
8. Loud or disruptive behavior will not be tolerated.
9. All students are encouraged to shower after activity.
10. Gym shoes must be worn when using the gymnasium. (Street shoes with soft soles are not permissible.)
11. It is recommended that gym clothes be worn when using the gymnasium.

## Facilities and Services for the Disabled

The College has renovated areas to make its facilities more accessible to disabled students. Outdoor and indoor ramps, elevators and specially designed restroom facilities are available to assist any physically disabled person.

Disabled students who will need to have adaptive computer equipment installed in labs and classrooms will need to satisfy the following procedure in order to be accommodated in a timely manner.

Students must present their class schedules to the Counselor for Special Needs four weeks before the start of an academic term. At that time, a Request for Computing Services form will be completed and a copy submitted to the Academic Computing Office.

Students who request computer assistance less than four weeks before the start of an academic term cannot be assured that the accommodation will be made by the first day of classes.

## Lockers

The College has lockers available for use by students. Students must provide their own locks. Cincinnati State Technical and Community College assumes no responsibility for any loss, theft or damage to lockers, locks or contents due to fire, trespassers, etc. Each year, at the end of the Spring (April) Term, students must remove locks and contents from their lockers so that general cleaning and maintenance can be performed.

# Parking & Traffic Regulations

The regulations set forth in this section were developed by the Public Safety Department, and approved by the College Administration in accordance with the Ohio Revised Code. Information on Parking Fees is provided on page 19.

The goal is to utilize the available parking resources for the benefit of students, faculty, and visitors to insure that the parking areas are maintained and safe.

The purpose of parking tickets, etc. is not to generate income; it is to obtain cooperation from all students, faculty, and visitors.

**Parking Facilities**

The College offers on-campus parking in lots, the garage, and on driveways around the building (designated "Upper Lot"), and in an adjacent lot accessible from Ludlow Avenue (designated Lower Lot "C"). A garage is also available to students. Students and College staff may park on campus as designated below:

**Upper Lot**

College Staff: spaces lined in white are reserved for Faculty/Staff until 4:30 p.m.

Students: all spaces in Lot A and spaces lined in yellow around the building and on the main entrance and exit drives are designated for student parking with a valid permit.

Handicapped parking: spaces lined in blue are reserved for the handicapped. Handicapped parking requires a state-issued license plate or plaque and a Cincinnati State parking permit.

Garage: garage parking is available to students with a permit.

Motorcycle: spaces designated for motorcycle parking only.

**Lower Lot "C"** parking spaces are available for any vehicle displaying a valid Cincinnati State parking permit or on a pay per use basis.

**Obtaining A Parking Permit**

Students must complete a Vehicle Registration form (forms are available at the Cashier Window or in Room 7). A current license plate registration must be shown. Only one permit will be issued to each student. Deliver the completed form to the proper College office, as designated below, to receive the parking permit.

**Day Parking**

Permits are limited in number and sold on a first-come, first-served basis. These permits are purchased in-person only at the College Cashier window. Mail-in requests will not be accepted. A new permit must be purchased for each academic term.

Lot "C" - Parking is charged on a per-use basis at the exit from Lower Lot "C." Parking in Lower Lot "C" is also permissible with a Lot C permit from 7:00 a.m. - 11:00 p.m.

**Evening Parking (after 4:30 p.m.)**

After 4:30 p.m., all parking spaces are open except for spaces specifically designated "Handicapped," "Evening Faculty Parking Area" located in Lot D, "Day Care parking" located in the front of school, and any area with posted "No Parking" signs. These permits are sold by the Cashier's Office. A new permit must be purchased for each academic term.

**Handicapped Parking**

Parking permits are available allowing use of the Handicap parking spaces. Both a state-issued license plate/plaque and a Cincinnati State parking permit are required. Contact the Parking Office (Room 7) for details.

**Parking Permit Regulations:**

1. Falsifying any information on the registration form will result in revocation of the permit.
2. Issuance of a parking permit does not guarantee an available parking space.
3. If a parking permit is lost, stolen or destroyed, replacement permits are available at a $5 charge.
4. Permits must be displayed per instructions on the permit.
5. Permits are not transferable.
6. Permits cannot be shared.

**Visitor Parking**

Visitor parking is available in Lot B and Lot C. These lots can be used by students registering or visiting campus. A fee is charged for use of the lots. The fees are posted at the entrance to the lots.

## Emergencies

If you see a crime being committed on campus or need assistance from Public Safety, call 861-8888, or for Police or Fire Department, call 911.

Emergency phones are located near the parking areas and in the garage. These phones are monitored by the Public Safety Office 24 hours a day.

If you accidentally lock your keys in your car or need a jump start, come to the Public Safety Office in room 7 and a safety officer will assist you.

## Violations

**Citation Procedure**

College parking regulations are enforced by the Department of Public Safety. Any violations can result in a citation being issued. Citations must be paid or appealed within 10 business days from the date of issue. After that time, the ability to appeal will be lost.

Any citation not paid or appealed within 10 business days of issue will double in cost, and the vehicle is subject to impoundment. After 30 days from issue, any unpaid citations will be automatically added to the student's account. Repeated or serious violations could result in loss of campus parking privileges, towing of vehicle and/or impoundment at the owner's expense. Ignorance of College parking policy is not an excuse for operating or parking in violation. Citations are payable at the Cashier's Office or mail to:

Cincinnati State Technical and Community College
ATTN: Cashier's Office
3520 Central Parkway
Cincinnati, OH 45223

The purchase and display of a parking permit does not guarantee the availability of a parking space and does not justify parking against College policy.

**PARKING VIOLATIONS**

A list of violations is available in room 7.

**Citation Appeal Procedure**

Any ticket issued by the Public Safety Department can be appealed by filling out the appeal form available in the Campus Safety Office (Room 7). The form must be completed and submitted within ten business days after the ticket was issued. The findings of the Appeal Committee are final.

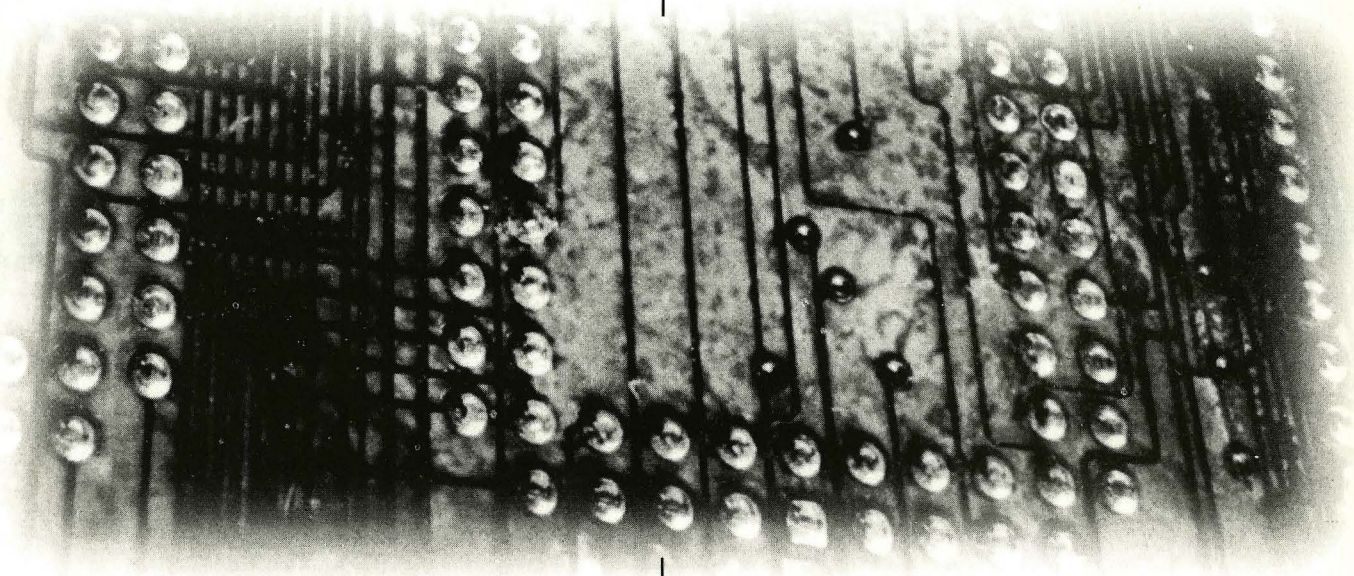
## Liability

Cincinnati State Technical and Community College assumes no responsibility for theft or damage to vehicles parked on College property.

*The* Public Safety Department *is here to help you. If you have any questions, please stop by our office or call us at (513) 569-1558.*

Cincinnati State

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# ACADEMIC DIVISIONS, DEGREE & CERTIFICATE PROGRAMS

# Academic Divisions & Programs of Study

Cincinnati State Technical and Community College has five academic divisions which offer credit courses: Business Technologies, Engineering Technologies, Health Technologies, Humanities, and Sciences.

The College offers a variety of educational programs that lead to associate degrees. Full-time students can complete these programs in two years or less; however, many students take longer to complete their degree requirements.

- Technical associate degree programs are intended to prepare students for employment immediately after graduation, although the credits earned in these programs also are transferable to four-year colleges and universities.

The technical associate degrees awarded are Associate of Applied Business (AAB), Associate of Applied Science (AAS), Associate of Technical Study (ATS), and Associate of Individualized Study (AIS). In this catalog, the AAB and AAS degree programs are listed according to the academic division that offers the program. The ATS and AIS programs are listed on page 128.

- University-parallel associate degree programs are intended to prepare students for immediate transfer to a four-year college or university, by providing the courses required for the first two years of a bachelor's degree. Students who complete these degrees are given preferential consideration for admission to a public university in Ohio.

The university-parallel degrees awarded are Associate of Arts (AA) and Associate of Science (AS). These associate degree programs are listed beginning on page 60.

In addition to associate degree programs, the College offers several certificate programs that prepare students for specific occupational situations. These certificate programs usually can be completed in less time than is required to complete an associate degree.

The College also offers courses and services to assist students who may need additional preparation or support in order to be successful in achieving their academic goals.

## College-Wide Requirements

As part of the graduation requirements for the Associate of Applied Business, Associate of Applied Science, Associate of Individualized Study, and Associate of Technical Study degrees, a student must complete at least 21 credit hours in the communication skills/social sciences areas, distributed as follows:

- Communication Skills - 12 credits
  9 credits written communication
  3 credits oral communications
- Social/Behavioral Sciences - 9 credits, selected from at least two of these areas: psychology, economics, sociology, government relations, geography, history, literature, philosophy, fine arts, interdisciplinary studies.

(Note: students may select courses from the Arts/Humanities areas as a substitute for one area of the Social/Behavioral Sciences, with prior approval of the program chair/advisor.)

Graduation requirements for the Associate of Arts (AA) and Associate of Science (AS) degrees, are described on pages 61-64.

### College Orientation Requirement

Beginning in Early Fall 2001, all Cincinnati State students who are enrolled in degree or certificate programs are required to complete the college orientation course CAR 9002, College Success Strategies. This requirement does not apply to degree-seeking or certificate-seeking students who have already successfully completed 18 or more credits of college-level courses at Cincinnati State (not including Developmental Education courses), or have received transfer credit for equivalent courses.

The course CAR 9002 introduces students to the college experience and to Cincinnati State's expectations and resources for new students. This course earns college credit, but it does not fulfill general studies or core course requirements for degree or certificate programs. Students must complete the orientation course requirement within the first 18 credit hours taken at Cincinnati State.

## The Honors Experience

The Cincinnati State Honors Experience supports the institutional goal of serving all aspects of the community by offering enhanced learning opportunities to academically talented, highly motivated students. The Honors Experience curriculum complements the existing degree programs. The Honors Experience strives to establish an intellectual community among students and faculty; to provide challenging coursework, academic enrichment activities, academic honors advising, and opportunities for student involvement. It is open to full and part time admitted degree-seeking students in all divisions of the College who meet the entry criteria listed below. Students are first admitted to a degree program and then to Honors. Once admitted to Honors, students are eligible to apply for an Honors Experience scholarship.

All Honors students must take HRN 1695 Orientation to Honors as a co/pre-requisite to taking other Honors classes.

For more information, contact Marcha L. Hunley, Honors Chair, 569-1732 or visit the Honors web page at www.cinstate.cc.us/Academics-Honors.htm.

There are several entry criteria possibilities.

A. New student - meet at least one of the following:
- High school GPA of 3.25 or higher
- High school rank - top 20%
- ACT 26 (after April 1996)
- SAT scores 1140 (after April 1996)
- Compass scores of at least - Reading 81 and Writing 70 and Math 58

B. Current student - college GPA of 3.25 after 18 academic credits

C. Transfer student - college GPA of 3.25 after 18 academic credits

And for all students - 2 recommendations from persons familiar with the student's academic potential and performance in a teaching/learning environment.

## Developmental Education

Developmental courses are available for students whose placement test scores indicate a need for additional preparation in the areas of reading, writing and math skills prior to entering their program of study. Typically, these courses are taken prior to being admitted to an academic or technical program. However, in some cases, developmental courses can be

taken in conjunction with program-level coursework. Students who need developmental courses are assigned a pre-technical or pre-major advisor. The advisor assists the student in selecting appropriate coursework and monitors the progress of each student toward meeting program admission requirements.

Courses in study skills and math anxiety are also available. These courses provide students with important college success skills such as test-taking, time management, using the library, and taking notes. In addition, a developmental computer learning laboratory and tutoring services are provided free of charge when extra help is needed.

Courses with a DE or ESL prefix are counted in the total number of attempted hours on the student's transcript, but they are not used to calculate a student's Grade Point Average (GPA). Even though these grades do not affect a student's GPA, they can affect financial aid eligibility. Grades earned in courses with a CAR prefix do count toward the student's GPA. Neither DE nor CAR courses can be counted toward graduation.

The following courses are offered every term:

| | | Credits |
|---|---|---|
| DE0003 | Basic Writing 1 | 4 |
| DE0004 | Basic Writing 2 | 4 |
| DE0005 | Basic Writing 3 | 4 |
| DE0010 | College Reading 1 | 4 |
| DE0011 | College Reading 2 | 4 |
| DE0018 | Integrated College Prep Skills | 8-12 |
| DE0020 | Basic Mathematics 1 | 4 |
| DE0024 | Basic Algebra 1 | 4 |
| DE0025 | Basic Algebra 2 | 4 |
| CAR9014 | College Study Skills | 4 |
| CAR9015 | Math Anxiety Study Skills | 1 |

Students may be advised to take other developmental courses not listed here that are offered on varying schedules to meet specific program preparation needs. Course descriptions for courses not listed above are available from advisors.

### ESL Courses

International students who successfully complete courses in English as a Second Language (ESL) are considered to have completed developmental writing and reading courses. Additional developmental writing and reading courses are not required.

### Developmental Learning Lab

A developmental learning lab is located in Rooms 254 and 258 of the main building. This IBM-based computer laboratory provides students with the opportunity to use supplemental instructional materials to sharpen their basic skills while reinforcing their abilities to learn independently.

### Tutoring

Individual or group tutoring is available to Cincinnati State students in a variety of subject areas and is free of charge. Instruction is provided either by qualified faculty or student tutors who have been recommended by a faculty member. All tutors receive training regarding methods, policies, and practices aimed at promoting independent learning. Students may request a tutor through the Tutoring Center in Room 261. Weekly appointments are scheduled when an appropriate tutor has been located. Drop-in tutoring without an appointment is available for students needing assistance in math and physics.

## Distance Education

Because of work schedules, parenting duties, and other personal and work-related responsibilities, many students are unable to attend traditional classroom lectures on campus. In recognition of the need to provide a wider variety of options for these students, Cincinnati State offers a number of courses in a "distance education" format.

Course lectures and instructional materials are made available to students by means of broadcast via public television, video or audio recordings, and/or print-based methods. Instructors meet with their classes at least three times and are available to answer questions throughout the term.

Distance education classes provide the same quality and content as traditional classroom-based instruction. Students who are interested in the scheduling flexibility provided by these classes should contact the Office of Corporate & Community Services or the Office of the Dean of the division in which the classes are offered.

# Transfer Module

The State of Ohio has developed a statewide policy to facilitate movement of students and transfer credits from one Ohio public college or university to another. (See policy statement on page 36.)

The Cincinnati State Transfer Module consists of 55 to 59 quarter credit hours which will transfer to any public Ohio two- or four-year college. The courses listed below constitute the Transfer Module.

Categories contained in the Transfer Module are:

- English Composition
- Mathematics
- Arts/Humanities
- Social/Behavioral Sciences
- Biological/Physical Sciences

Students earning the Transfer Module select "tracks" and courses from these categories. The Transfer Module requirements are included in the degree requirements for students earning the Associate of Arts (AA) or Associate of Science (AS); however, students earning the AA or AS degree also are required to complete additional courses selected from the Transfer Module categories. The AA/AS requirements are described on pages 61-64.

Students completing the Transfer Module should consult with their academic advisor to assure that courses selected are appropriate for the institution and the degree program that the student plans to pursue after completing studies at Cincinnati State.

| **ENGLISH COMPOSITION** | | **9 Credits** |
|---|---|---|
| Select one 3-course track. | | Credits |
| Track A | | |
| ENG 1001 | English Composition 1 | 3 |
| ENG 1002 | English Composition 2 | 3 |
| ENG 1003 | English Composition 3 | 3 |
| Track B | | |
| ENG 1001 | English Composition 1 | 3 |
| ENG 1002 | English Composition 2 | 3 |
| ENG 1010 | Technical Writing 1 | 3 |
| or | | |
| ENG 1011 | Business Communications | 3 |

Track C

| | | |
|---|---|---|
| ENG 1001 | English Composition 1 | 3 |
| ENG 1010 | Technical Writing 1 | 3 |
| ENG 1015 | Technical Writing 2 | 3 |

**MATHEMATICS** **4 Credits Minimum**

| | | |
|---|---|---|
| MAT 1152 | Pre-Calculus | 5 |
| MAT 1154 | Calculus 1 | 5 |
| MAT 1155 | Calculus 2 | 5 |
| MAT 1156 | Calculus 3 | 5 |
| MAT 1128 | Business Calculus | 5 |
| *MAT 1111 | Elementary Statistics 1 | 3 |
| *MAT 1112 | Elementary Statistics 2 | 3 |

* Must take both classes.

| | | |
|---|---|---|
| †MAT 1113 | Statistics 3 | 3 |
| MAT 1179 | Introduction to Applied Statistics | 4 |
| MAT 1192 | Algebra and Trigonometry 2 | 4 |
| MAT 1193 | Analytic Geometry and Calculus 1 | 4 |
| MAT 1194 | Analytic Geometry and Calculus 2 | 4 |
| MAT 1195 | Analytic Geometry and Calculus 3 | 4 |

**SOCIAL/BEHAVIORAL SCIENCES** **15 Credits**

Select 5 courses from at least two areas.

*Economics*

| | | |
|---|---|---|
| ECO 1512 | Microeconomics | 3 |
| ECO 1513 | Macroeconomics | 3 |
| ECO 1514 | International Aspects of Economics | 3 |

*Geography*

| | | |
|---|---|---|
| GEO 1551 | World Regional Geo. 1 | 3 |
| GEO 1552 | Cultural Geography | 3 |
| GEO 1553 | World Regional Geo. 2 | 3 |

*History*

| | | |
|---|---|---|
| HST 1561 | Hist. of World Civilization 1 | 3 |
| HST 1562 | Hist. of World Civilization 2 | 3 |
| HST 1563 | Hist. of World Civilization 3 | 3 |
| HST 1568 | American History 1 | 3 |
| HST 1569 | American History 2 | 3 |
| HST 1570 | American History 3 | 3 |
| HST 1575 | History of Africa | 3 |
| HST 1576 | African-American History 1 | 3 |
| HST 1577 | African-American History 2 | 3 |
| HST 1578 | African-American History 3 | 3 |

*Labor Relations*

| | | |
|---|---|---|
| LBR 1535 | Intro to Labor/Management Relations | 3 |

*Political Science*

| | | |
|---|---|---|
| POL 1531 | Intro to American Govt. 1 | 3 |
| POL 1532 | Intro to American Govt. 2 | 3 |
| POL 1533 | Intro to Comparative Governments | 3 |

*Psychology*

| | | |
|---|---|---|
| PSY 1505 | Intro to Psychology 1 | 3 |
| PSY 1506 | Intro to Psychology 2 | 3 |
| PSY 1507 | Abnormal Psychology | 3 |
| PSY 1508 | Child Psychology | 3 |
| PSY 1509 | Adult Psychology | 3 |
| PSY 1510 | Adolescent Psychology | 3 |
| PSY 1511 | Social Psychology | 3 |

*Sociology*

| | | |
|---|---|---|
| SOC 1521 | Introduction to Sociology 1 | 3 |
| SOC 1523 | Introduction to Sociology 2 | 3 |
| SOC 1525 | Changing Roles for Men & Women | 3 |
| SOC 1526 | Sociology: Marriage & the Family | 3 |

**ARTS/HUMANITIES** **15 Credits**

Select 5 courses from at least two areas.

*Art*

| | | |
|---|---|---|
| ART 1660 | Introduction to Art | 3 |
| ART 1662 | Art of the Ancient World | 3 |
| ART 1663 | Art of Medieval & Renaissance World | 3 |
| ART 1664 | Art of Modern World | 3 |

*Culture Studies*

| | | |
|---|---|---|
| CULT 1645 | Technology and Culture | 3 |
| CULT 1646 | Mass Media and Culture | 3 |
| CULT 1647 | Work and Society | 3 |
| CULT 1680 | Introduction to Film Studies 1 | 3 |
| †CULT 1681 | Introduction to Film Studies 2 | 3 |

*Literature and Composition*

| | | |
|---|---|---|
| LIT 1040 | Survey of American Lit. 1 | 3 |
| LIT 1041 | Survey of American Lit. 2 | 3 |
| LIT 1042 | Survey of American Lit. 3 | 3 |
| LIT 1045 | Survey of British Lit. 1 | 3 |
| LIT 1046 | Survey of British Lit. 2 | 3 |
| LIT 1047 | Survey of British Lit. 3 | 3 |
| LIT 1048 | Introduction to Shakespeare | 3 |
| LIT 1050 | The Short Story | 3 |
| LIT 1051 | Drama | 3 |
| LIT 1052 | Poetry | 3 |
| LIT 1053 | The Novel | 3 |
| LIT 1054 | Children's Literature | 3 |
| LIT 1055 | Science Fiction | 3 |
| LIT 1056 | Women Writers | 3 |
| LIT 1057 | African-American Writers | 3 |

*Music*

| | | |
|---|---|---|
| MUS 1665 | Introduction to Music 1 | 3 |
| MUS 1666 | Introduction to Music 2 | 3 |
| MUS 1667 | Introduction to Music 3 | 3 |

*Philosophy*

| | | |
|---|---|---|
| PHI 1620 | Critical Thinking | 3 |
| PHI 1621 | Introduction to Philosophy | 3 |
| PHI 1625 | Ethics | 3 |
| †PHI 1630 | Comparative World Religions: Asia | 3 |
| †PHI 1631 | Comparative World Religions: Middle East | 3 |

Theatre

| | | |
|---|---|---|
| †THE 1670 | Theatre Appreciation | 3 |
| †THE 1671 | History of Theatre | 3 |

**BIOLOGICAL/PHYSICAL SCIENCES** **12 Credits**

Select 3 courses from 1 track.

*Biology*

Track A

| | | |
|---|---|---|
| BIO 4071 | Concepts of Biology 1 | 4 |
| BIO 4072 | Concepts of Biology 2 | 4 |
| BIO 4073 | Concepts of Biology 3 | 4 |

Track B

| | | |
|---|---|---|
| BIO 4081 | Biology 1 | 5 |
| BIO 4082 | Biology 2 | 5 |
| BIO 4083 | Biology 3 | 5 |

Track C

| | | |
|---|---|---|
| BIO 4009 | General Microbiology | 4 |
| BIO 4014 | Anatomy and Physiology 1 | 4 |
| BIO 4015 | Anatomy and Physiology 2 | 4 |
| BIO 4016 | Anatomy and Physiology 3 | 4 |

*Chemistry*

Track A

| | | |
|---|---|---|
| CHE 2231 | Fundamentals of General Chemistry | 4 |
| CHE 2232 | Fundamentals of Organic Chemistry | 4 |
| CHE 2233 | Fundamentals of Biochemistry | 4 |

Track B

| | | |
|---|---|---|
| CHE 2251 | Freshman Chemistry 1 | 5 |
| CHE 2252 | Freshman Chemistry 2 | 5 |
| CHE 2253 | Freshman Chemistry 3 | 5 |

Track C

| | | |
|---|---|---|
| CHE 2281 | Organic Chemistry 1 | 5 |
| CHE 2282 | Organic Chemistry 2 | 5 |
| CHE 2283 | Organic Chemistry 3 | 5 |

Track D

| | | |
|---|---|---|
| SLT 6611 | Chemistry 1 & Quantitative Analysis | 6 |
| SLT 6621 | Chemistry 2 & Quantitative Analysis | 6 |
| SLT 6631 | Chemistry 3 & Quantitative Analysis | 6 |

*Environmental Science*

| | | |
|---|---|---|
| EVS 7621 | Environmental Science 1 | 4 |
| EVS 7622 | Environmental Science 2 | 4 |
| EVS 7623 | Environmental Geology | 4 |

*Physical Science*

| | | |
|---|---|---|
| PSC 2264 | Astronomy 1 - Solar System | 4 |
| PSC 2265 | Astronomy 2 - The Universe | 4 |
| PSC 2267 | Energy | 4 |
| PSC 2269 | Hydrology and Meteorology | 4 |
| PSC 2277 | Geology | 4 |

*Physics*

Track A

| | | |
|---|---|---|
| PHY 2291 | Physics 1 | 4 |
| PHY 2292 | Physics 2 | 4 |
| PHY 2293 | Physics 3 | 4 |
| PHY 2294 | Modern Physics | 4 |

Track B

| | | |
|---|---|---|
| PHY 2295 | Physics 1 (Calculus Based) | 5 |
| PHY 2296 | Physics 2 (Calculus Based) | 5 |
| PHY 2297 | Physics 3 (Calculus Based) | 5 |

† Pending State approval

# Associate of Arts and Associate of Science Degrees

Cincinnati State offers the Associate of Arts and Associate of Science degrees, which are often called "university parallel degrees" or "transfer degrees," because these degrees provide the first two years of a bachelor's degree program. The primary purpose of the Associate of Arts and Associate of Science degrees is to prepare students for transfer to a four-year college or university. Students who earn these degrees and have an overall grade point average of 2.0 or better are given preferential consideration for admission to Ohio public universities.

To earn the Associate of Arts or Associate of Science degree at Cincinnati State, a student must complete at least 102 credit hours of courses from these areas:

- English Composition
- Mathematics
- Biological/Physical Sciences
- Social/Behavioral Sciences
- Arts/Humanities
- Computer Literacy
- Cooperative Education/Career Exploration

The Associate of Arts degree is intended for students who desire to pursue a bachelor's degree by completing the first two years at Cincinnati State in program areas such as:

- Architecture
- Communications
- Criminal Justice
- Education
- English
- Fine Arts
- History
- International Affairs
- Philosophy
- Political Science
- Pre-Law
- Psychology
- Social Work
- Sociology
- Spanish
- Theatre
- Urban Planning
- Urban Studies

The Associate of Science degree is intended for students who desire to pursue a bachelor's degree by completing the first two years at Cincinnati State in program areas such as:

- Biology
- Chemistry
- Mathematics
- Meteorology
- Physics
- Pre-Dentistry
- Pre-Medicine
- Pre-Mortuary Science
- Pre-Optometry
- Pre-Pharmacy
- Pre-Veterinary Medicine
- Zoology

The student who seeks the Associate of Arts or Associate of Science degree is expected to be familiar with the requirements for the bachelor's degree at the institution where the student intends to complete his or her studies. Each student will work with a Cincinnati State faculty advisor to develop a planned curriculum of required and elective courses. This plan should allow a full-time student to transfer to the desired four-year institution at junior status after two years or less. Students who need additional preparation or attend part-time may take longer than two years to complete their degree requirements.

## Associate of Arts Degree Requirements

| | |
|---|---|
| English Composition: | 9 Credits – select one track |
| Mathematics: | 4 Credits – select one or two courses |
| Oral Communications: | 3 Credits – select one course |
| Social/Behavioral Sciences: | 15 Credits – select five Transfer Module courses from at least two areas |
| Arts/Humanities: | 15 Credits – select five Transfer Module courses from at least two areas |
| Distributive Credits: | 12 Credits – select four courses from Social/Behavioral Sciences or Arts/Humanities |
| Biological/ Physical Sciences: | 12 Credits – select one track |
| Computer Literacy: | 6 Credits – select two courses |
| Cooperative Education: | 7 Credits – complete course 9801 and consult the co-op co-ordinator to select additional courses from 9802, 9803, 9804, 9805, and 9806 |
| Electives: | 19 Credits – In consultation with advisor, select courses which meet general and programmatic requirements of the institution where the student plans to complete a bachelor's degree. |

Total – 102 credit hours minimum

## Associate of Sciences Degree Requirements

| | |
|---|---|
| English Composition: | 9 Credits – select one track |
| Mathematics: | 8 Credits – select two or 3 courses |
| Oral Communications: | 3 Credits – select one course |
| Social/Behavioral Sciences: | 15 Credits – select five Transfer Module courses from at least two areas |
| Arts/Humanities: | 15 Credits – select five Transfer Module courses from at least two areas |
| Biological/ Physical Sciences: | 24 Credits – select two tracks |
| Computer Literacy: | 6 Credits – select two courses |
| Cooperative Education: | 7 Credits – complete course 9801 and consult the co-op co-ordinator to select additional courses from 9802, 9803, 9804, 9805, and 9806 |
| Electives: | 15 Credits – In consultation with advisor, select courses which meet general and programmatic requirements of the institution where the student plans to complete a bachelor's degree. |

Total – 102 credit hours minimum

## Courses that meet Associate of Arts and Associate of Science Requirements

Students in the Associate of Arts and Associate of Science programs **should** complete the transfer module as part of their degrees.

| | | (credits) |
|---|---|---|
| **ENGLISH COMPOSITION** | **9 Credits** | |
| Select one 3-course track. | | |
| Track A | | |
| ENG 1001 | English Composition 1 | 3 |
| ENG 1002 | English Composition 2 | 3 |
| ENG 1003 | English Composition 3 | 3 |
| Track B | | |
| ENG 1001 | English Composition 1 | 3 |
| ENG 1002 | English Composition 2 | 3 |
| ENG 1010 or ENG 1011 | Technical Writing 1 / Business Communications | 3 / 3 |
| Track C | | |
| ENG 1001 | English Composition 1 | 3 |
| ENG 1010 | Technical Writing 1 | 3 |
| ENG 1015 | Technical Writing 2 | 3 |
| **MATHEMATICS** | **4 Credits-AA 8 Credits-AS** | |
| MAT 1152 | Pre-Calculus | 5 |
| MAT 1154 | Calculus 1 | 5 |
| MAT 1155 | Calculus 2 | 5 |
| MAT 1156 | Calculus 3 | 5 |
| MAT 1128 | Business Calculus | 5 |
| *MAT 1111 | Elementary Statistics 1 | 3 |
| *MAT 1112 | Elementary Statistics 2 | 3 |

* Must take both classes.

| | | |
|---|---|---|
| †MAT 1113 | Elementary Statistics 3 | 3 |
| MAT 1179 | Introduction to Applied Statistics | 4 |
| MAT 1192 | Algebra and Trigonometry 2 | 4 |
| MAT 1193 | Analytic Geometry and Calculus 1 | 4 |
| MAT 1194 | Analytic Geometry and Calculus 2 | 4 |
| MAT 1195 | Analytic Geometry and Calculus 3 | 4 |

**ORAL COMMUNICATIONS 3 Credits**

| | | |
|---|---|---|
| SPE 1020 | Public Speaking | 3 |
| SPE 1022 | Professional Presentations | 3 |
| SPE 1024 | Group Dynamics | 3 |
| SPE 1027 | Team Building & Group Facilitation | 3 |

**SOCIAL/BEHAVIORAL SCIENCES 15 Credits**

These are Transfer Module courses. Select 5 courses from at least two areas.

*Economics*

| | | |
|---|---|---|
| ECO 1512 | Microeconomics | 3 |
| ECO 1513 | Macroeconomics | 3 |
| ECO 1514 | International Aspects of Economics | 3 |

*Geography*

| | | |
|---|---|---|
| GEO 1551 | World Regional Geo. 1 | 3 |
| GEO 1552 | Cultural Geography | 3 |
| GEO 1553 | World Regional Geo. 2 | 3 |

*History*

| | | |
|---|---|---|
| HST 1561 | Hist. of World Civilization 1 | 3 |
| HST 1562 | Hist. of World Civilization 2 | 3 |
| HST 1563 | Hist. of World Civilization 3 | 3 |
| HST 1568 | American History 1 | 3 |
| HST 1569 | American History 2 | 3 |
| HST 1570 | American History 3 | 3 |
| HST 1575 | History of Africa | 3 |
| HST 1576 | African-American History 1 | 3 |
| HST 1577 | African-American History 2 | 3 |
| HST 1578 | African-American History 3 | 3 |

*Labor Relations*

| | | |
|---|---|---|
| LBR 1535 | Intro to Labor/Management Relations | 3 |

*Political Science*

| | | |
|---|---|---|
| POL 1531 | Intro to American Govt. 1 | 3 |
| POL 1532 | Intro to American Govt. 2 | 3 |
| POL 1533 | Intro to Comparative Governments | 3 |

*Psychology*

| | | |
|---|---|---|
| PSY 1505 | Intro to Psychology 1 | 3 |
| PSY 1506 | Intro to Psychology 2 | 3 |
| PSY 1507 | Abnormal Psychology | 3 |
| PSY 1508 | Child Psychology | 3 |
| PSY 1509 | Adult Psychology | 3 |
| PSY 1510 | Adolescent Psychology | 3 |
| PSY 1511 | Social Psychology | 3 |

*Sociology*

| | | |
|---|---|---|
| SOC 1521 | Introduction to Sociology 1 | 3 |
| SOC 1523 | Introduction to Sociology 2 | 3 |
| SOC 1525 | Changing Roles for Men & Women | 3 |
| SOC 1526 | Sociology: Marriage & the Family | 3 |

These courses are not transfer module courses, but may be used to fulfill the Distributive Credit (AA) or Elective Credit (AA & AS) requirement.

*Criminal Justice*

| | | |
|---|---|---|
| CRJ 1250 | Intro to Criminal Justice | 3 |
| CRJ 1251 | Intro to Policing & Law Enforcement | 3 |
| CRJ 1252 | Intro to Corrections | 3 |
| CRJ 1253 | Criminal Courts & Procedures 1 | 3 |
| CRJ 1254 | Criminal Courts & Procedures 2 | 3 |
| CRJ 1255 | Criminal Law | 3 |
| CRJ 1256 | Criminal Investigation Skills | 3 |
| CRJ 1257 | Juvenile Delinquency | 3 |
| CRJ 1258 | Workshops in Criminal Justice | 3 |
| CRJ 1259 | Special Studies in Criminal Justice | 3 |

*Labor Relations*

| | | |
|---|---|---|
| LBR 1539 | Intro to Employment & Workplace Law 1 | 3 |
| LBR 1540 | Intro to Employment & Workplace Law 2 | 3 |

*Social Sciences*

| | | |
|---|---|---|
| SSC 1598 | Topics in Social Sciences | 3 |

*Sociology*

| | | |
|---|---|---|
| SOC 1270 | Introduction to Social Work | 3 |
| SOC 1271 | Social Welfare and Policies | 3 |
| SOC 1272 | Social Problems | 3 |
| SOC 1273 | Drugs in Society | 3 |

**ARTS/HUMANITIES 15 Credits**

These are Transfer Module courses. Select 5 courses from at least two areas.

*Art*

| | | |
|---|---|---|
| ART 1660 | Introduction to Art | 3 |
| ART 1662 | Art of the Ancient World | 3 |
| ART 1663 | Art of Medieval & Renaissance World | 3 |
| ART 1664 | Art of Modern World | 3 |

*Culture Studies*

| | | |
|---|---|---|
| CULT 1645 | Technology and Culture | 3 |
| CULT 1646 | Mass Media and Culture | 3 |
| CULT 1647 | Work and Society | 3 |
| CULT 1680 | Introduction to Film Studies 1 | 3 |
| †CULT 1681 | Introduction to Film Studies 2 | 3 |

*Literature and Composition*

| | | |
|---|---|---|
| LIT 1040 | Survey of American Lit. 1 | 3 |
| LIT 1041 | Survey of American Lit. 2 | 3 |
| LIT 1042 | Survey of American Lit. 3 | 3 |
| LIT 1045 | Survey of British Lit. 1 | 3 |
| LIT 1046 | Survey of British Lit. 2 | 3 |
| LIT 1047 | Survey of British Lit. 3 | 3 |
| LIT 1048 | Introduction to Shakespeare | 3 |
| LIT 1050 | The Short Story | 3 |
| LIT 1051 | Drama | 3 |
| LIT 1052 | Poetry | 3 |
| LIT 1053 | The Novel | 3 |
| LIT 1054 | Children's Literature | 3 |
| LIT 1055 | Science Fiction | 3 |

| | | |
|---|---|---|
| LIT 1056 | Women Writers | 3 |
| LIT 1057 | African-American Writers | 3 |
| *Music* | | |
| MUS 1665 | Introduction to Music 1 | 3 |
| MUS 1666 | Introduction to Music 2 | 3 |
| MUS 1667 | Introduction to Music 3 | 3 |
| *Philosophy* | | |
| PHI 1620 | Critical Thinking | 3 |
| PHI 1621 | Introduction to Philosophy | 3 |
| PHI 1625 | Ethics | 3 |
| †PHI 1630 | Comparative World Religions: Asia | 3 |
| †PHI 1631 | Comparative World Religions: Middle East | 3 |
| *Theatre* | | |
| †THE 1670 | Theatre Appreciation | 3 |
| †THE 1671 | History of Theatre | 3 |

These courses are not transfer module courses, but may be used to fulfill the Distributive Credit (AA) or Elective Credit (AA & AS) requirement.

Culture Studies

| | | |
|---|---|---|
| CULT 1602 | Issues in Human Diversity | 3 |
| *Foreign Languages* | | |
| FRN 1060 | Elementary French 1 | 4 |
| FRN 1061 | Elementary French 2 | 4 |
| FRN 1062 | Elementary French 3 | 4 |
| FRN 1063 | Intermediate French 1 | 4 |
| FRN 1064 | Intermediate French 2 | 4 |
| FRN 1065 | Intermediate French 3 | 4 |
| GRM 1070 | Elementary German 1 | 4 |
| GRM 1071 | Elementary German 2 | 4 |
| GRM 1072 | Elementary German 3 | 4 |
| GRM 1073 | Intermediate German 1 | 4 |
| GRM 1074 | Intermediate German 2 | 4 |
| GRM 1075 | Intermediate German 3 | 4 |
| SPN 1076 | Spanish Conversation & Composition | 2 |
| SPN 1080 | Elementary Spanish 1 | 4 |
| SPN 1081 | Elementary Spanish 2 | 4 |
| SPN 1082 | Elementary Spanish 3 | 4 |
| SPN 1083 | Intermediate Spanish 1 | 4 |
| SPN 1084 | Intermediate Spanish 2 | 4 |
| SPN 1085 | Intermediate Spanish 3 | 4 |
| ITP 1086 | Beginning ASL 1 | 4 |
| ITP 1087 | Beginning ASL 2 | 4 |
| ITP 1088 | Beginning ASL 3 | 4 |
| ITP 1091 | Intermediate ASL 1 | 4 |
| ITP 1092 | Intermediate ASL 2 | 4 |
| ITP 1093 | Intermediate ASL 3 | 4 |
| ITP 1094 | Advanced ASL 1 | 4 |
| ITP 1095 | Advanced ASL 2 | 4 |
| ITP 1096 | Advanced ASL 3 | 4 |

Not all schools will accept American Sign Language as a foreign language. Check with your advisor before starting the American Sign Language sequence.

| | | |
|---|---|---|
| *Humanities* | | |
| HUM 1698 | Special Topics in Humanities | 3 |
| HUM 1699 | Special Problems in Humanities | 3 |
| *Literature and Composition* | | |
| ENG 1036 | Creative Writing: Poetry | 3 |
| ENG 1037 | Creative Writing: Short Fiction | 3 |
| ENG 1038 | Creative Writing: Non Fiction | 3 |
| ENG 1039 | Creative Writing: Writing for Children | 3 |
| LIT 1059 | Topics in Literature | 3 |
| *Journalism* | | |
| JOU 1031 | News Writing 1 | 3 |
| JOU 1032 | News Writing 2 | 3 |
| JOU 1033 | Journalism Practicum | 1 |

**BIOLOGICAL/PHYSICAL SCIENCES**

12 Credits—AA 24 Credits--AS

Select 3 courses from 1 track (AA) or 2 tracks (AS).

*Biology*

Track A

| | | |
|---|---|---|
| BIO 4071 | Concepts of Biology 1 | 4 |
| BIO 4072 | Concepts of Biology 2 | 4 |
| BIO 4073 | Concepts of Biology 3 | 4 |

Track B

| | | |
|---|---|---|
| BIO 4081 | Biology 1 | 5 |
| BIO 4082 | Biology 2 | 5 |
| BIO 4083 | Biology 3 | 5 |

Track C

| | | |
|---|---|---|
| BIO 4009 | General Microbiology | 4 |
| BIO 4014 | Anatomy and Physiology 1 | 4 |
| BIO 4015 | Anatomy and Physiology 2 | 4 |
| BIO 4016 | Anatomy and Physiology 3 | 4 |

*Chemistry*

Track A

| | | |
|---|---|---|
| CHE 2231 | Fundamentals of General Chemistry | 4 |
| CHE 2232 | Fundamentals of Organic Chemistry | 4 |
| CHE 2233 | Fundamentals of Biochemistry | 4 |

Track B

| | | |
|---|---|---|
| CHE 2251 | Freshman Chemistry 1 | 5 |
| CHE 2252 | Freshman Chemistry 2 | 5 |
| CHE 2253 | Freshman Chemistry 3 | 5 |

Track C

| | | |
|---|---|---|
| CHE 2281 | Organic Chemistry 1 | 5 |
| CHE 2282 | Organic Chemistry 2 | 5 |
| CHE 2283 | Organic Chemistry 3 | 5 |

Track D

| | | |
|---|---|---|
| SLT 6611 | Chemistry 1 & Quantitative Analysis | 6 |
| SLT 6621 | Chemistry 2 & Quantitative Analysis | 6 |
| SLT 6631 | Chemistry 3 & Quantitative Analysis | 6 |
| *Environmental Science* | | |
| EVS 7621 | Environmental Science 1 | 4 |
| EVS 7622 | Environmental Science 2 | 4 |
| EVS 7623 | Environmental Geology | 4 |

*Physical Science*

| | | |
|---|---|---|
| PSC 2264 | Astronomy 1 - Solar System | 4 |
| PSC 2265 | Astronomy 2 - The Universe | 4 |
| PSC 2267 | Energy | 4 |
| PSC 2269 | Hydrology and Meteorology | 4 |
| PSC 2277 | Geology | 4 |

*Physics*

Track A

| | | |
|---|---|---|
| PHY 2291 | Physics 1 | 4 |
| PHY 2292 | Physics 2 | 4 |
| PHY 2293 | Physics 3 | 4 |
| PHY 2294 | Modern Physics | 4 |

Track B

| | | |
|---|---|---|
| PHY 2295 | Physics 1 (Calculus Based) | 5 |
| PHY 2296 | Physics 2 (Calculus Based) | 5 |
| PHY 2297 | Physics 3 (Calculus Based) | 5 |

**COMPUTER LITERACY 6 Credits**

Select 2 courses in computer programming or computer applications.

*Computer Applications*

| | | |
|---|---|---|
| OT 1850 | Computerized Business Applications | 4 |
| OT 1863 | Electronic Spreadsheets (Excel) | 3 |
| OT 3058 | MS Word for Windows | 3 |
| OT 3059 | WordPerfect for Windows | 3 |
| OT 3062 | Database/Spreadsheet Applications | 3 |
| OT 3095 | Intro to Computers, Windows, Internet | 3 |
| OT 3096 | Internet/Office Communications | 3 |
| GC 1422 | Desktop Publishing (PC PageMaker) | 3 |
| IT 5102 | Introduction to Macintosh | 3 |
| IT 5103 | Macintosh Applications - Excel/Filemaker | 3 |
| IT 5116 | Macintosh Applications - Adobe PageMaker | 3 |
| IT 5410 | Cross Platform Computing | 3 |
| IT 5453 | Web Development 1: HTML | 3 |
| IT 5456 | Desktop Publishing: QuarkXPress | 3 |

*Computer Programming*

| | | |
|---|---|---|
| IT 5206 | Programming Logic and BASIC | 6 |
| IT 5231 | Operating Sys: DOS/Windows 1 | 3 |
| IT 5281 | Visual C++1 | 4 |
| IT 5282 | Visual C++2 | 4 |
| IT 5291 | Visual BASIC 1 | 4 |

**COOPERATIVE EDUCATION 7 Credits**

In order to complete the AA or AS degree at Cincinnati State Technical and Community College, students must earn no fewer than seven credits in work exploration / experience, selected from the courses described below.

All students seeking the AA or As degree must successfully complete course 9801, "Career Exploration Seminar." Students are expected to enroll in this course in their SECOND or third term.

All students seeking the AA or AS degree must successfully complete two additional "work experience" classes, selected from courses 9802, 9803, 9804, 9805, or 9806. No other classes may be substituted for the work experience courses without prior approval of the program chair and the cooperative education coordinator. However, students with prior work experience that is related to their post-baccalaureate career goals may be eligible to receive credit through the standard College procedures for granting Advanced Standing Credit.

| | | |
|---|---|---|
| HUM 9801 | Career Exploration Seminar | 3 |
| HUM 9802 | Internship - Humanities & Sciences | 2 |
| HUM 9803 | Cooperative Employment - Humanities & Sciences | 2 |
| HUM 9804 | Parallel Cooperative Employment - Humanities & Sciences | 1 |
| HUM 9805 | Career Education Project - Humanities & Sciences | 2 |
| HUM 9806 | Career Education Project - Humanities & Sciences | 4 |

**ELECTIVES 19 Credits--AA 15 Credits--AS**

Electives will be selected based on knowledge of general and programmatic requirements of the institution where the student plans to earn a baccalaureate degree. Any course in the list of requirements above (except courses in the Computer Literacy and Cooperative Education categories) may be used as an elective. Other courses may be used as electives with the prior permission of the advisor.

†Pending State approval. Consult an advisor.

# Business Technologies Division

Business and industry are constantly searching for capable and responsible employees who can establish an environment in which people work together in the most effective manner to achieve management goals. The number of highly-skilled workers required by business is great, especially in specialized business fields, and is growing each year. Sound business training helps to develop better management.

Cincinnati State is meeting the need for specialized business training with 20 Associate of Applied Business programs, 9 certificates, an Associate of Arts in Pre-Business, and an Associate of Applied Science program. Organized job experience through cooperative work assignments with leading business organizations is a key phase of the learning program. Collegiate level courses, combined with job-related activities during the nine-week co-op terms, provide students with both business skills and business experience. Upon completion of the two-year, co-op/college program in business, students receive an associate degree and begin advancing rapidly to more responsible and better paying positions.

Credits earned in the degree programs are transferable. Articulation agreements have been established with The College of Mount St. Joseph, Northern Kentucky University, Rochester Institute of Technology, Thomas More College, the Union Institute, University of Cincinnati, Wilmington College, and Xavier University.

## Required Business Core

As a part of the graduation requirements for the Associate of Applied Business degree, a student must complete a business core set of courses as follows:

- Minimum of 8 credit hours Math
- Economics as part of Social Science requirement
- Business Principles
- Minimum of 3 credit hours in each of the following business disciplines: accounting, computer applications, law, management, marketing
- Cincinnati State *Working for Success Experience*

## Cooperative Education

In the Business Technologies Division, students participate in a cooperative education program. Cooperative education sets Cincinnati State apart from most colleges and universities. Cooperative education allows students to apply their majors in the business world and to gain practical experience that will enhance their first full-time employment after graduation. Therefore, in the Business Technologies Division, all students must earn 8-10 credit hours (per technology requirements) in cooperative education.

The Cincinnati State *Working for Success Experience* is a series of practice-oriented courses designed to assure students' success in preparing for and achieving their career goals. The foundation for the program is set with course **CAR 9002 - *College Success Strategies***, which is the first course in the series. This course prepares students for their college experiences and provides a map for the successful transition to college life. *College Success Strategies* sets the stage for the classroom, lab, and cooperative education experience students will have at Cincinnati State.

The course sequence continues with **BUS 9200 - *Professional Practices***. This course prepares students for their cooperative education experience. Through *Professional Practices*, students learn the fundamental skills required to gain employment such as goal setting, resume writing, interviewing and negotiating. Additionally, students will be oriented in job success competencies ranging from business etiquette to business ethics. Having completed this course, students are ready for the practical experience provided by cooperative education.

The primary element in the practice-oriented education provided by the *Working for Success Experience* is **cooperative education**. Cincinnati State's educational philosophy continues to embrace the concept that learning occurs best with the integration of classroom experiences and related work through cooperative education. Because co-op is mandatory, students are expected to complete several terms of meaningful employment that is structured, managed and evaluated in a systematic way that helps the student realize his or her career goal. Through the completion of learning modules, students will acquire additional skill sets necessary to sustain employment. In exceptional situations, the student, in consultation with his or her program coordinator, may fulfill the co-op requirement through registration in the Co-op Seminar course(s). Cooperative Education is the centerpiece of the Cincinnati State educational experience.

The concluding course in the Cincinnati State *Working for Success Experience* is **Course 9233 - *Business Competencies***. This is the capstone course to the practice-oriented sequence and is intended to tie together the experience of the preceding courses. Through the learning continuum, students will be able to portfolio experiences as they complete educational units designed to build competencies that will be needed to advance in their chosen field of work. Included in the *Business Competencies* course is an element of mandatory community service. Students should be enriched by their educational experiences. A part of this enrichment is the realization that with education and career comes a responsibilty to the community. The capstone course will help students gain perspective and form the foundation for good citizenship.

The learning continuum provided by the Cincinnati State *Working for Success Experience* is fundamental to the goal of preparing students for the world of work. The program engages students in a wide variety of learning experiences that prepare them for success academically and professionally while keeping them connected to the Institution. By completing this practice-oriented sequence, Cincinnati State is meeting the needs of students, employers and the community.

## The Cooperative Education Requirement

1. A student can meet the Business Technologies Division cooperative education requirement in these three ways:
   A. The student completes the traditional cooperative education work experiences.
   B. The student fulfills the requirements by applying for advanced standing.
   C. The student satisfactorily completes the Co-op Seminar classes. Students must have the coordinator's prior approval.
2. In order to be eligible to participate in the cooperative education program, a student must generally meet the following requirements:
   A. Be a matriculated student.
   B. Maintain a G.P.A. of 2.0 or higher, and complete any required program technical courses. See co-op coordinator for list.
   C. Attend a co-op orientation session and complete a petition to co-op packet. It must be returned to the program co-op coordinator before consideration for placement.
   D. Agree to follow curriculum and meet all program requirements as specified.
   E. Agree not to seek full-time employment with his or her co-op employer until graduation.
   F. Understand that co-op students are not eligible for unemployment benefits for co-op positions, and as such, agree not to apply for them.
   G. Any student wishing to drop out of the co-op program must have prior coordinator approval and complete the remainder of his/her co-op requirements by taking the co-op seminar courses. Once a student leaves the co-op program, he or she will not be eligible to re-enter without approval of the co-op coordinator.
3. Students may complete the required co-op experience on either an alternating or parallel track depending on the availability of positions. Students must meet with their co-op coordinator as soon as possible after admittance to their academic program to complete their co-op plan.
4. The Business Technologies Division will assist students in completing their cooperative education work experiences. Although the division's co-op coordinators are generally successful in finding interview opportunities for co-op students, there is no employment guarantee. In these cases, the co-op coordinator will work with the student on alternatives to fulfill the cooperative education requirement.

## Entrance Testing

All students seeking entry to degree programs in the Business Technologies Division are required to take the Compass™ Test. The results of the Compass™ Test will be used by the program advisors to place students in the proper reading, English and math courses according to their ability level.

## Transfer Module

Associate degree programs in the Business Technologies Division contain in their curricula most of the required courses for the Cincinnati State Transfer Module. The additional courses needed to complete the transfer module should be scheduled at times convenient to the student. Students who wish to transfer to an Ohio public university for baccalaureate degrees will find that a Cincinnati State Associate of Applied Business or Associate of Applied Science degree combined with a transfer module (showing grades of "C" or better) will receive preferential consideration at the receiving university.

## Pre-Business Administration Transfer Degree

The Pre-Business Administration program provides students with basic coursework enabling them to transfer to Bachelor's degree programs in business administration, accounting, finance, management and marketing. The program emphasizes completion of general education requirements and selected business core courses to prepare students for work in their major at the senior institution. The primary objective of this program, rather than preparation for a job, is to provide for transfer to a four-year institution.

The Business Technologies Division has developed articulation agreements with University of Cincinnati, Miami University, Northern Kentucky University, The College of Mount St. Joseph, Wilmington College, Xavier University and other regional institutions. Significant differences exist between course requirements and the application of transfer credits at the various institutions in the region, so students must work closely with their academic advisors from Cincinnati State and the transfer coordinator of the receiving institution to tailor their academic program for transfer to the institution of their choice.

The Pre-Business Administration Transfer curriculum leads to the Associate of Arts degree, and meets the transfer module requirements for transfer to Ohio public colleges and universities.

## Accounting Technology (ACCT)

The Accounting Technology program has two options: Accounting Technology (leading to an Associate of Applied Business degree) and the Accounting Certificate. Both programs provide knowledge of business fundamentals and an understanding of accounting skills. In addition to preparation in financial, managerial and tax accounting, students receive a sound background in communication skills, management philosophy and computerized accounting.

The first option, Accounting Technology, educates students in all arenas of accounting and prepares them for immediate employment in the accounting field. The second option, the Accounting Certificate, serves students who already possess a degree in a different discipline and who want to sit for the CPA exam or who may need accounting courses for job promotion.

In the Accounting Technology program, students participate in cooperative education opportunities with financial institutions; small and large CPA firms; manufacturing, merchandising and service companies; and governmental agencies. The Accounting Certificate has no cooperative education requirement.

## ACCOUNTING TECHNOLOGY

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| MAT | 11XX | Math Elective | 3 | 0 | 3 |
| OT | 1850 | Computerized Business Applications | 3 | 2 | 4 |
| ACC | 2911 | Principles of Accounting 1 | 3 | 2 | 4 |
| BUS | 2925 | Business Principles | 3 | 0 | 3 |
| BT | 9200 | Professional Practices | 1 | 0 | 1 |
| | | | 16 | 4 | 18 |
| **SECOND TERM** | | | | | |
| LAW | 1823 | Business Law 1 | 3 | 0 | 3 |
| ACC | 9220 | Cooperative Education Accounting | 1 | 40 | 2 |
| | | | 4 | 40 | 5 |
| **THIRD TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| MAT | 11XX | Math Elective | 3 | 0 | 3 |
| OT | 1863 | Electronic Spreadsheets (Excel) | 2 | 2 | 3 |
| ACC | 2912 | Principles of Accounting 2 | 4 | 0 | 4 |
| ACC | 2917 | Federal Taxation 1 | 3 | 0 | 3 |
| | | | 15 | 2 | 16 |
| **FOURTH TERM** | | | | | |
| ACC | 9220 | Cooperative Education Accounting | 1 | 40 | 2 |
| | XXXX | Business Elective | 3 | 0 | 3 |
| | | | 4 | 40 | 5 |
| **FIFTH TERM** | | | | | |
| MAT | 11XX | Math Elective | 3 | 0 | 3 |
| OT | 1864 | Advanced Electronic Spreadsheets (Excel) | 2 | 2 | 3 |
| ACC | 2913 | Principles of Accounting 3 | 4 | 0 | 4 |
| ACC | 2914 | Cost Accounting 1 | 3 | 0 | 3 |
| ACC | 2918 | Federal Taxation 2 | 3 | 0 | 3 |
| MKT | 29XX | Marketing Elective | 3 | 0 | 3 |
| | | | 18 | 2 | 19 |
| **SIXTH TERM** | | | | | |
| MGT | 29XX | Management Elective | 3 | 0 | 3 |
| ACC | 9220 | Cooperative Education Accounting | 1 | 40 | 2 |
| | | | 4 | 40 | 5 |
| **SEVENTH TERM** | | | | | |
| ENG | 10XX | English Elective | 3 | 0 | 3 |
| ACC | 2919 | Intermediate Accounting 1 | 3 | 0 | 3 |
| ACC | 2921 | Managerial Accounting 1 | 3 | 0 | 3 |
| ACC | 2922 | Computerized Accounting Applications | 2 | 2 | 3 |
| FIN | 2960 | Principles of Finance 1 | 3 | 0 | 3 |
| | | | 14 | 2 | 15 |
| **EIGHTH TERM** | | | | | |
| PSY | 1505 | Introduction to Psychology 1 | 3 | 0 | 3 |
| ACC | 9220 | Cooperative Education Accounting | 1 | 40 | 2 |
| | | | 4 | 40 | 5 |
| **NINTH TERM** | | | | | |
| SPE | 1020 | Public Speaking | 3 | 0 | 3 |
| ECO | 1512 | Microeconomics | 3 | 0 | 3 |
| ACC | 2920 | Intermediate Accounting 2 | 3 | 0 | 3 |
| BUS | 9233 | Business Competencies | 2 | 0 | 2 |
| ACC | XXXX | Accounting Elective | 3 | 0 | 3 |
| ACC | XXXX | Accounting Elective | 3 | 0 | 3 |
| | | | 17 | 0 | 17 |
| **TENTH TERM** | | | | | |
| ECO | 1513 | Macroeconomics | 3 | 0 | 3 |
| ACC | 9220 | Cooperative Education Accounting | 1 | 40 | 2 |
| | | | 4 | 40 | 5 |
| | | | | | 110 |

Math Elective (Take one sequence):
(1) MAT 1121 and MAT 1122 and MAT 1123
(2) MAT 1124 and MAT 1152 and MAT 1128
(3) MAT 1124 and MAT 1132
(4) MAT 1124 and MAT 1111 and MAT 1112
English Elective: ENG 1003, ENG 1010
Business Elective: LAW 1824, FIN 2961, BUS 2973, FIN 2976, MGT 1804, MGT 1832, OT 3007, or MGT 2977 and 2978 and 2979 (must take all three courses which are 1 credit hour each)
Marketing Elective: MKT 2903 (preferred) or MKT 2901 and MKT 2902
Management Elective: MGT 2967 (preferred) or MGT 2965 and MGT 2966
Accounting Elective: ACC 1851, ACC 2915, ACC 2941, ACC 2942, ACC 2943

## ACCOUNTING CERTIFICATE (ACCTC)

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| ACC | 2911 | Principles of Accounting 1 | 3 | 2 | 4 |
| ACC | 2912 | Principles of Accounting 2 | 4 | 0 | 4 |
| ACC | 2913 | Principles of Accounting 3 | 4 | 0 | 4 |
| ACC | 2914 | Cost Accounting 1 | 3 | 0 | 3 |
| ACC | 2917 | Federal Taxation 1 | 3 | 0 | 3 |
| ACC | 2918 | Federal Taxation 2 | 3 | 0 | 3 |
| ACC | 2919 | Intermediate Accounting 1 | 3 | 0 | 3 |
| ACC | 2920 | Intermediate Accounting 2 | 3 | 0 | 3 |
| ACC | 2921 | Managerial Accounting 1 | 3 | 0 | 3 |
| ACC | 2922 | Computerized Accounting Applications | 2 | 2 | 3 |
| ACC | XXXX | Accounting Elective | 3 | 0 | 3 |
| ACC | XXXX | Accounting Elective | 3 | 0 | 3 |
| | | | 37 | 4 | 39 |
| | | | | | 39 |

Accounting Elective: ACC 1851, ACC 2915, ACC 2941, ACC 2942, ACC 2943

## Automotive Service Management Technology (ASM)

The Automotive Service Management Technology program prepares students for entry-level jobs in the technical and/or management domain of the automotive service field. Course materials encompass all Automotive Service Excellence certification areas. Hands-on diagnosis and repair of "live" vehicles enhance the students' diagnostic skills and increase their self-confidence while building a solid foundation for a successful and rewarding career. The program includes six terms of classroom/lab study and four terms of cooperative education. Graduates may seek employment as Automotive Technicians, Technician Helpers, Assistant Managers, or Specialized Technicians.

## AUTOMOTIVE SERVICE MANAGEMENT TECHNOLOGY

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| MAT | 1161 | Applied Algebra | 3 | 2 | 4 |
| ASM | 2520 | Introduction to Automotive Technology | 2 | 3 | 3 |
| ASM | 2525 | Engine Fundamentals 1 | 2 | 3 | 3 |
| ASM | 2540 | Automotive Electrical Diagnosis 1 | 2 | 3 | 3 |
| BT | 9200 | Professional Practices | 1 | 0 | 1 |
| | | | 13 | 11 | 17 |
| **SECOND TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| | 102X | Speech Elective | 3 | 0 | 3 |
| MAT | 1162 | Applied Geometry & Trigonometry | 3 | 2 | 4 |
| ASM | 2530 | Engine Performance 1 | 2 | 3 | 3 |
| ASM | 2535 | Automatic Transmission 1 | 2 | 3 | 3 |
| | | | 13 | 8 | 16 |
| **THIRD TERM** | | | | | |
| ASM | 9221 | Cooperative Education-Automotive Service Management | 1 | 40 | 2 |
| **FOURTH TERM** | | | | | |
| OT | 1850 | Computerized Business Applications | 3 | 2 | 4 |
| PHY | 2220 | Automotive Physics | 2 | 3 | 3 |
| ASM | 2526 | Engine Fundamentals 2 | 2 | 3 | 3 |
| ASM | 2541 | Automotive Electrical Diagnosis 2 | 2 | 3 | 3 |
| BUS | 2925 | Business Principles | 3 | 0 | 3 |
| | | | 12 | 11 | 16 |
| **FIFTH TERM** | | | | | |
| ASM | 9221 | Cooperative Education-Automotive Service Management | 1 | 40 | 2 |
| **SIXTH TERM** | | | | | |
| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| LBR | 1535 | Introduction to Labor/Management Relations | 3 | 0 | 3 |
| ASM | 2531 | Engine Performance 2 | 2 | 3 | 3 |
| ASM | 2550 | Manual Transmission and Drive Line 1 | 2 | 3 | 3 |
| ASM | 25XX | Technical Elective | 2 | 3 | 3 |
| | XXXX | Social Science Elective | 3 | 0 | 3 |
| | | | 15 | 9 | 18 |
| **SEVENTH TERM** | | | | | |
| ASM | 9221 | Cooperative Education-Automotive Service Management | 1 | 40 | 2 |
| **EIGHTH TERM** | | | | | |
| ECO | 1512 | Microeconomics | 3 | 0 | 3 |
| ASM | 2555 | Braking Systems | 2 | 3 | 3 |
| ASM | 2560 | Suspension and Steering | 2 | 3 | 3 |
| ASM | 25XX | Technical Elective | 2 | 3 | 3 |
| ACC | 2924 | Accounting for Non-Financial Managers | 3 | 0 | 3 |
| MGT | 2967 | Introduction to Management | 3 | 0 | 3 |
| | | | 15 | 9 | 18 |
| **NINTH TERM** | | | | | |
| ASM | 9221 | Cooperative Education-Automotive Service Management | 1 | 40 | 2 |
| **TENTH TERM** | | | | | |
| LAW | 1823 | Business Law 1 | 3 | 0 | 3 |
| ASM | 2532 | Engine Performance 3 | 2 | 3 | 3 |
| ASM | 2570 | Air Conditioning & Heating | 2 | 3 | 3 |
| ASM | 25XX | Technical Elective | 2 | 3 | 3 |
| MKT | 2903 | Introduction to Marketing | 3 | 0 | 3 |
| BUS | 9233 | Business Competencies | 2 | 0 | 2 |
| | | | 14 | 9 | 17 |
| | | | | | 110 |

Technical Electives: ASM 2542, ASM 2545, ASM 2565, ASM 2527, ASM 2536, ASM 2551
Social Science Elective: Any PSY, SOC, ECO, GEO, HST, LBR
Speech Elective: SPE 1020, SPE 1022, SPE 1024

## AUTOMOTIVE SERVICE TECHNICIAN CERTIFICATE (ASMC)

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| ASM | 2520 | Introduction to Automotive Technology | 2 | 3 | 3 |
| ASM | 2525 | Engine Fundamentals 1 | 2 | 3 | 3 |
| ASM | 2526 | Engine Fundamentals 2 | 2 | 3 | 3 |
| ASM | 2530 | Engine Performance 1 | 2 | 3 | 3 |
| ASM | 2531 | Engine Performance 2 | 2 | 3 | 3 |
| ASM | 2532 | Engine Performance 3 | 2 | 3 | 3 |
| ASM | 2535 | Automatic Transmission 1 | 2 | 3 | 3 |
| ASM | 2540 | Automotive Electrical Diagnosis 1 | 2 | 3 | 3 |

| | | | | | |
|---|---|---|---|---|---|
| ASM | 2541 | Automotive Electrical Diagnosis 2 | 2 | 3 | 3 |
| ASM | 2542 | Automotive Electrical Diagnosis 3 | 2 | 3 | 3 |
| ASM | 2550 | Manual Transmission and Drive Line 1 | 2 | 3 | 3 |
| ASM | 2555 | Braking Systems | 2 | 3 | 3 |
| ASM | 2560 | Suspension and Steering | 2 | 3 | 3 |
| ASM | 2570 | Air Conditioning & Heating | 2 | 3 | 3 |
| ASM | 25XX | Automotive Electives | 6 | 9 | 9 |
| | | | 34 | 51 | 51 |
| | | | | | 51 |

ASM electives: (choose three courses for 9 credit hours): ASM 2527, ASM 2536, ASM 2545, ASM 2551, ASM 2565

## Business Management Technology (BM)

The Business Management Technology program combines sound business training with on-the-job experience. The classroom experience involves a management curriculum including courses in basic management principles, labor-management relations, and management theories with practical applications. Through cooperative education work experience, students gain valuable insights into solving management problems. Graduates are prepared to own and operate small businesses or gain entry-level career positions as managers or manager trainees.

## BUSINESS MANAGEMENT TECHNOLOGY

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| MAT | 1121 | Business Mathematics 1 | 3 | 0 | 3 |
| ECO | 151X | Economics Elective | 3 | 0 | 3 |
| OT | 1850 | Computerized Business Applications | 3 | 2 | 4 |
| ACC | 2911 | Principles of Accounting 1 | 3 | 2 | 4 |
| BUS | 2925 | Business Principles | 3 | 0 | 3 |
| BT | 9200 | Professional Practices | 1 | 0 | 1 |
| | | | 19 | 4 | 21 |
| **SECOND TERM** | | | | | |
| BUS | 9222 | Cooperative Education Business Management/ Marketing Management | 1 | 40 | 2 |
| **THIRD TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| MAT | 1122 | Business Mathematics 2 | 3 | 0 | 3 |
| MKT | 2901 | Principles of Marketing 1 | 3 | 0 | 3 |
| ACC | 2912 | Principles of Accounting 2 | 4 | 0 | 4 |
| MGT | 2965 | Principles of Management 1 | 3 | 0 | 3 |
| | XXXX | Social Science Elective | 3 | 0 | 3 |
| | | | 19 | 0 | 19 |
| **FOURTH TERM** | | | | | |
| BUS | 9222 | Cooperative Education Business Management/ Marketing Management | 1 | 40 | 2 |
| **FIFTH TERM** | | | | | |
| MAT | 1123 | Business Mathematics 3 | 3 | 0 | 3 |
| OT | 186X | Electronic Spreadsheets Elective | 2 | 2 | 3 |
| MKT | 2902 | Principles of Marketing 2 | 3 | 0 | 3 |
| ACC | 2913 | Principles of Accounting 3 | 4 | 0 | 4 |
| MGT | 2966 | Principles of Management 2 | 3 | 0 | 3 |
| | XXXX | Business Elective | 3 | 0 | 3 |
| | | | 18 | 2 | 19 |
| **SIXTH TERM** | | | | | |
| BUS | 9222 | Cooperative Education Business Management/ Marketing Management | 1 | 40 | 2 |
| **SEVENTH TERM** | | | | | |
| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| MKT | 1810 | Principles of Sales | 3 | 0 | 3 |
| LAW | 1823 | Business Law 1 | 3 | 0 | 3 |
| MGT | 1832 | Human Resource Management | 3 | 0 | 3 |
| ACC | 2921 | Managerial Accounting 1 | 3 | 0 | 3 |
| FIN | 2960 | Principles of Finance 1 | 3 | 0 | 3 |
| | | | 18 | 0 | 18 |
| **EIGHTH TERM** | | | | | |
| BUS | 9222 | Cooperative Education Business Management/ Marketing Management | 1 | 40 | 2 |
| **NINTH TERM** | | | | | |
| SPE | 102X | Speech Elective | 3 | 0 | 3 |
| LAW | 1824 | Business Law 2 | 3 | 0 | 3 |
| MGT | 2975 | Business Management Seminar | 2 | 3 | 3 |
| MGT | 2989 | Customer Service Systems | 3 | 0 | 3 |
| BUS | 9233 | Business Competencies | 2 | 0 | 2 |
| | XXXX | Social Science Elective | 3 | 0 | 3 |
| | XXXX | Business Elective | 3 | 0 | 3 |
| | | | 19 | 3 | 20 |
| **TENTH TERM** | | | | | |
| BUS | 9222 | Cooperative Education Business Management/ Marketing Management | 1 | 40 | 2 |
| | | | | | 107 |

Business Elective: FIN 1804, FIN 2961, BUS 2973, MGT 2970, MGT 2971, MGT 2988, MGT 2989, MGT 2990, PUR 1817, PUR 1818, PUR 1872, ITM 2980
Speech Elective: SPE 1020, SPE 1022, SPE 1024
Social Science Elective: PSY 1502, PSY 1505, SOC 1521, SOC 1524, LBR 1535, PHI 1625
Economics Elective: ECO 1512, ECO 1513, ECO 1514
Electronic Spreadsheets Elective: OT 1861, OT 1863

## Business Financial Management Technology (BFM)

The Business Financial Management Technology program provides a combination of sound financial business training with on-the-job experience. The curriculum covers basic corporate financial concepts, investment concepts, personal finance and insurance planning. Graduates are prepared to perform managerial functions in a financial environment and analyze financial data.

## BUSINESS FINANCIAL MANAGEMENT TECHNOLOGY

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| MAT | 1121 | Business Mathematics 1 | 3 | 0 | 3 |
| ECO | 151X | Economics Elective | 3 | 0 | 3 |
| OT | 1850 | Computerized Business Applications | 3 | 2 | 4 |
| ACC | 2911 | Principles of Accounting 1 | 3 | 2 | 4 |
| BUS | 2925 | Business Principles | 3 | 0 | 3 |
| BT | 9200 | Professional Practices | 1 | 0 | 1 |
| | | | 19 | 4 | 21 |
| **SECOND TERM** | | | | | |
| BUS | 9222 | Cooperative Education Business Management/ Marketing Management | 1 | 40 | 2 |
| **THIRD TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| MAT | 1122 | Business Mathematics 2 | 3 | 0 | 3 |
| LAW | 1823 | Business Law 1 | 3 | 0 | 3 |
| MKT | 2903 | Introduction to Marketing | 3 | 0 | 3 |
| ACC | 2912 | Principles of Accounting 2 | 4 | 0 | 4 |
| MGT | 2965 | Principles of Management 1 | 3 | 0 | 3 |
| | | | 19 | 0 | 19 |
| **FOURTH TERM** | | | | | |
| BUS | 9222 | Cooperative Education Business Management/ Marketing Management | 1 | 40 | 2 |
| **FIFTH TERM** | | | | | |
| MAT | 1123 | Business Mathematics 3 | 3 | 0 | 3 |

| | | | | | |
|---|---|---|---|---|---|
| OT | 186X | Electronic Spreadsheets Elective | 2 | 2 | 3 |
| ACC | 2913 | Principles of Accounting 3 | 4 | 0 | 4 |
| FIN | 2961 | Financial Planning | 3 | 0 | 3 |
| MGT | 2966 | Principles of Management 2 | 3 | 0 | 3 |
| | XXXX | Business Elective | 3 | 0 | 3 |
| | | | 18 | 2 | 19 |
| **SIXTH TERM** | | | | | |
| BUS | 9222 | Cooperative Education Business Management/ Marketing Management | 1 | 40 | 2 |
| **SEVENTH TERM** | | | | | |
| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| FIN | 1804 | Risk & Insurance | 3 | 0 | 3 |
| LAW | 1824 | Business Law 2 | 3 | 0 | 3 |
| MGT | 1832 | Human Resource Management | 3 | 0 | 3 |
| OT | 186X | Advanced Electronic Spreadsheets Elective | 2 | 2 | 3 |
| FIN | 2960 | Principles of Finance 1 | 3 | 0 | 3 |
| | | | 17 | 2 | 18 |
| **EIGHTH TERM** | | | | | |
| BUS | 9222 | Cooperative Education Business Management/ Marketing Management | 1 | 40 | 2 |
| | | | 1 | 40 | 2 |
| **NINTH TERM** | | | | | |
| SPE | 102X | Speech Elective | 3 | 0 | 3 |
| FIN | 2969 | Principles of Finance 2 | 3 | 0 | 3 |
| MGT | 2975 | Business Management Seminar | 2 | 3 | 3 |
| FIN | 2976 | Financial Institutions | 3 | 0 | 3 |
| BUS | 9233 | Business Competencies | 2 | 0 | 2 |
| | XXXX | Social Science Elective | 3 | 0 | 3 |
| | XXXX | Social Science Elective | 3 | 0 | 3 |
| | | | 19 | 3 | 20 |
| **TENTH TERM** | | | | | |
| BUS | 9222 | Cooperative Education Business Management/ Marketing Management | 1 | 40 | 2 |
| | | | 1 | 40 | 2 |
| | | | | | 107 |

Economics Elective: ECO 1512, ECO 1513, ECO 1514
Business Elective: PUR 1817, PUR 1818, PUR 1872, MGT 2970, MGT 2971, MGT 2988, MGT 2989, BUS 2973, ITM 2982, ACC 2921
Speech Elective: SPE 1020, SPE 1022, SPE 1024
Social Science Elective: PSY 1502, PSY 1505, SOC 1521, SOC 1524, LBR 1535, PHI 1625
Electronic Spreadsheets Elective: OT 1861, OT 1863
Advanced Electronic Spreadsheets Elective: OT 1862, OT 1864

## E-Commerce Marketing Technology (ECM)

E-commerce Marketing Technology is designed to prepare students to work in the broad areas of e-commerce: business-to-business, business-to-consumers, consumer-to-consumer and e-services. Technical skills and knowledge include e-commerce site design and analysis, marketing management, Customer Relationship Management (CRM), market research, Internet advertising and promotion, branding, data mining, Internet direct marketing, e-commerce logistics and fulfillment, web site selling, traffic generation and analysis, pricing, and privacy, security and legal issues in e-commerce. Actual job titles for this emerging area are new and vary across business, but might include: Director of Internet Marketing, Customer Relations Management specialist, Internet Marketing Affiliate, Sales and Marketing Wireless, Internet Marketing Analyst, E-commerce Specialist, E-commerce Project Manager and E-commerce Entrepreneur.

## E-COMMERCE MARKETING TECHNOLOGY

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| MAT | 1124 | Business Algebra | 4 | 0 | 4 |
| OT | 1863 | Electronic Spreadsheets (Excel) | 2 | 2 | 3 |
| MKT | 2901 | Principles of Marketing 1 | 3 | 0 | 3 |
| BUS | 2925 | Business Principles | 3 | 0 | 3 |
| OT | 3096 | Internet/Office Communications | 2 | 2 | 3 |
| BT | 9200 | Professional Practices | 1 | 0 | 1 |
| | | | 18 | 4 | 20 |
| **SECOND TERM** | | | | | |
| ENG | 1017 | Research and Composition | 2 | 2 | 3 |
| MAT | 1111 | Statistics 1 | 3 | 0 | 3 |
| MKT | 1873 | E-Commerce Business Strategy | 3 | 0 | 3 |
| MGT | 2967 | Introduction to Management | 3 | 0 | 3 |
| IT | 5420 | Digital Media Concepts | 2 | 3 | 3 |
| IT | 5453 | Web Development 1: HTML | 2 | 3 | 3 |
| | | | 15 | 8 | 18 |
| **THIRD TERM** | | | | | |
| BUS | 9222 | Cooperative Education Business Management/Marketing Management | 1 | 40 | 2 |
| **FOURTH TERM** | | | | | |
| MKT | 1878 | Internet Advertising | 2 | 2 | 3 |
| MKT | 2902 | Principles of Marketing 2 | 3 | 0 | 3 |
| MGT | 2996 | Project Management | 2 | 2 | 3 |
| OT | 3068 | Database Management: Access | 2 | 3 | 3 |
| TC | 5020 | Usability Assessment | 2 | 2 | 3 |
| IT | 5431 | Authoring Tools: Dreamweaver | 2 | 3 | 3 |
| | | | 13 | 12 | 18 |
| **FIFTH TERM** | | | | | |
| BUS | 9222 | Cooperative Education Business Management/Marketing Management | 1 | 40 | 2 |
| **SIXTH TERM** | | | | | |
| ENG | 1019 | Professional Writing Styles 2 | 2 | 2 | 3 |
| ECO | 151X | Economics Elective | 3 | 0 | 3 |
| MKT | 1874 | Web Site Selling | 2 | 2 | 3 |
| LAW | 1875 | E-Commerce Law and Regulation | 3 | 0 | 3 |
| MKT | 1883 | Search Engine Strategies | 2 | 2 | 3 |
| ACC | 2924 | Accounting for Non-Financial Managers | 3 | 0 | 3 |
| | | | 15 | 6 | 18 |
| **SEVENTH TERM** | | | | | |
| BUS | 9222 | Cooperative Education Business Management/Marketing Management | 1 | 40 | 2 |
| **EIGHTH TERM** | | | | | |
| BUS | 9222 | Cooperative Education Business Management/Marketing Management | 1 | 40 | 2 |
| **NINTH TERM** | | | | | |
| SPE | 1024 | Group Dynamics & Problem Solving | 3 | 0 | 3 |
| PUR | 1877 | Supply Chain Management | 3 | 0 | 3 |
| MKT | 1879 | E-Commerce Project | 2 | 4 | 4 |
| MGT | 2989 | Customer Service Systems | 3 | 0 | 3 |
| | XXXX | Social Science Elective | 3 | 0 | 3 |
| | XXXX | Social Science Elective | 3 | 0 | 3 |
| | | | 17 | 4 | 19 |
| **TENTH TERM** | | | | | |
| BUS | 9222 | Cooperative Education Business Management/Marketing Management | 1 | 40 | 2 |
| BUS | 9233 | Business Competencies | 2 | 0 | 2 |
| | | | 3 | 40 | 4 |
| | | | | | 105 |

Social Science Elective: PSY 1502, SOC 1521, SOC 1524, LBR 1535, PHI 1625
Economics Elective: ECO 1512, ECO 1513, ECO 1514

## E-Commerce Marketing Certificate (ECMC)

The E-commerce Marketing certificate program provides knowledge and high-level tools needed to create, maintain and evolve e-commerce strategy. Graduates will be prepared to identify products and services that are right for web sales, build websites that really sell, attract targeted traffic, price for maximum profitability, create advertising and promotions strategies, and develop effective e-commerce service.

## E-COMMERCE MARKETING CERTIFICATE

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| MKT | 1873 | E-Commerce Business Strategy | 3 | 0 | 3 |
| MKT | 1874 | Web Site Selling | 2 | 2 | 3 |
| LAW | 1875 | E-Commerce Law and Regulation | 3 | 0 | 3 |
| PUR | 1877 | Supply Chain Management | 3 | 0 | 3 |
| MKT | 1878 | Internet Advertising | 2 | 2 | 3 |
| MKT | 1879 | E-Commerce Project | 2 | 4 | 4 |
| MGT | 2989 | Customer Service Systems | 3 | 0 | 3 |
| MGT | 2996 | Project Management | 2 | 2 | 3 |
| OT | 3096 | Internet/Office Communications | 2 | 2 | 3 |
| IT | 5453 | Web Development 1: HTML | 2 | 3 | 3 |
| MKT/IT | XXXX | E-Commerce Elective | 3 | 0 | 3 |
| | | | 27 | 15 | 34 |
| | | | | | 34 |

Skills competencies required for program admittance:
The following courses or equivalent knowledge:
OT 1850, ACC 2911, MKT 2901 and MKT 2902, or MKT 2903 and MKT 2990.
MKT 1879 - Advisor consent required.
MKT/IT Electives: (Choose one) MKT 1883, IT 5431, IT 5454, IT 5455

## Entrepreneurship Certificate (ETRPC)

The Entrepreneurship Certificate program serves as a quick-start program for people who are interested in learning the essentials of starting a successful home-based business or small company. The program equips graduates with the knowledge and skills essential to choose the right business, set up a profitable enterprise, get business coming quickly and steadily, and operate business productively.

## ENTREPRENEURSHIP CERTIFICATE

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| MKT | 1810 | Principles of Sales | 3 | 0 | 3 |
| OT | 1850 | Computerized Business Applications | 3 | 2 | 4 |
| OT | 1863 | Electronic Spreadsheets (Excel) | 2 | 2 | 3 |
| ACC | 2911 | Principles of Accounting 1 | 3 | 2 | 4 |
| MGT | 2971 | Small Business Start-Up 1 | 3 | 0 | 3 |
| MGT | 2972 | Small Business Start-Up 2 | 3 | 0 | 3 |
| MGT | 2989 | Customer Service Systems | 3 | 0 | 3 |
| MKT | 2990 | Entrepreneurial Marketing | 3 | 0 | 3 |
| | | | 23 | 6 | 26 |
| | | | | | 26 |

## Quality Control/Assurance Certificate (QCC)

Current practitioners in the quality field who wish to expand and add focus to their quality skills may be interested in the Professional Certificate in Quality Control and Assurance. The curriculum emphasizes both product quality (manufactured goods) and service quality (banks, hospitals, airlines, etc.)

The certificate addresses the body of knowledge required for certification by the American Society for Quality Control (ASQC). Students may wish to earn ASQC certification as a quality technician (CQT), quality engineer (CQE), or quality engineer-in-training (QEIT). The certificate advisor can provide specific details.

## QUALITY CONTROL/ASSURANCE CERTIFICATE

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| ENG | 1015 | Technical Writing 2 | 3 | 0 | 3 |
| SPE | 1027 | Team Building and Group Facilitation | 3 | 0 | 3 |
| MAT | 1179 | Applied Statistics | 4 | 0 | 4 |
| MGT | 2988 | Total Quality for Managers | 3 | 0 | 3 |
| QCC | 6270 | Introduction to Statistical Process Control | 3 | 2 | 4 |
| QCC | 6272 | Introduction to Design of Experiments | 3 | 2 | 4 |
| QCC | 6274 | Introduction to Reliability | 3 | 2 | 4 |
| QCC | 6275 | Introduction to ISO 9000 | 3 | 0 | 3 |
| QCC | 6299 | QC/QA Project | 0 | 3 | 1 |
| | XXXX | Technical Elective | 3 | 0 | 3 |
| | | | 28 | 9 | 32 |
| | | | | | 32 |

ENG 1015: Prerequisite is ENG 1010
MAT 1161: Suggested for students concerned with algebra readiness
Technical Electives: MGT 2965, MCH 4001, HLT 4061, SLT 6611, SLT 6629, ET 7035, MET 7111, OT 1850 (advisor consent required)
QCC 6299 by arrangement with ASQC Certified Staff

## Quality Management Certificate (QMC)

The Quality Management Certificate is designed to provide organizations with skilled and knowledgeable graduates who can help enterprises manage change, improve processes, leverage knowledge, and increase performance. Key program components include assessment of systems and processes, strategic planning for quality, customer satisfaction, project management, continuous improvement, team building and facilitation, and training issues. This program is most appropriate for those individuals who are working for or seeking employment in proactive organizations that value quality, agility, creativity, and continuous improvement.

## QUALITY MANAGEMENT CERTIFICATE

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| ENG | 1015 | Technical Writing 2 | 3 | 0 | 3 |
| SPE | 1027 | Team Building and Group Facilitation | 3 | 0 | 3 |
| MGT | 2987 | Change Management for Quality | 3 | 0 | 3 |
| MGT | 2988 | Total Quality for Managers | 3 | 0 | 3 |
| MGT | 2989 | Customer Service Systems | 3 | 0 | 3 |
| MGT | 2996 | Project Management | 2 | 2 | 3 |
| QCC | 6277 | Statistics for Quality 1 | 3 | 2 | 4 |
| QCC | 6278 | Statistics for Quality 2 | 2 | 2 | 3 |
| QCC | 6299 | QC/QA Project | 0 | 3 | 1 |
| | XXXX | Technical Elective | 3 | 0 | 3 |
| | | | 25 | 9 | 29 |
| | | | | | 29 |

ENG 1015: Prerequisite is ENG 1010
QCC 6277: Prerequisite is MAT 1124
QCC 6299 by arrangement with ASQC Certified Staff
Technical Electives: MGT 2986, QCC 6275, QCC 6276, QCC 6279, MCH 4886 (Advisor consent required)

## Graphic Communications Technology - Graphics Imaging Option (GIT) and Packaging and Advertising Technology (PAT)

The Graphic Communications Technology program provides two options for an associate degree: Graphic Imaging

Technology and Packaging and Advertising Technology. In both programs, students study basic graphic design fundamentals using digital imaging equipment and graphics software. In addition, digital photography, quality control, estimating, customer service and mid-management training are emphasized. This knowledge is then combined with technical training in the offset, packaging (flexographic), screen, gravure and letterpress printing processes to provide students with a quality education and experience for a variety of positions in the Graphic Communications industry.

The Graphic Imaging Technology option focuses on the offset printing process for advanced coursework. Students create art and produce printed results on a variety of sheet-fed presses including a digital press and 4-color Komori press.

The Packaging and Advertising Technology option is structured to train students in the packaging industry's printing process which emphasizes printing on corrugated boxes, plastics, foils, bags and pressure-sensitive substrates. Students get hands-on experience with photopolymer platemaking, mounting, step-and-repeat camera operation and printing their designs on a 7" 4-color flexo press.

## GRAPHIC COMMUNICATIONS TECHNOLOGY - GRAPHICS IMAGING OPTION

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| MAT | 1121 | Business Mathematics 1 | 3 | 0 | 3 |
| GC | 1403 | Computer Graphics for Printing 1 | 2 | 6 | 4 |
| GC | 1415 | Graphic Arts Processes | 2 | 3 | 3 |
| GC | 1419 | Survey of Printing Inks | 3 | 0 | 3 |
| BUS | 2925 | Business Principles | 3 | 0 | 3 |
| BT | 9200 | Professional Practices | 1 | 0 | 1 |
| | | | 17 | 9 | 20 |
| **SECOND TERM** | | | | | |
| GC | 9223 | Cooperative Education - Graphics | 1 | 40 | 2 |
| **THIRD TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| GC | 1421 | Computer Graphics for Printing 2 | 2 | 6 | 4 |
| GC | 1449 | Printing Estimating 1 | 2 | 3 | 3 |
| GC | 1480 | Digital Photography & Printing | 2 | 3 | 3 |
| ECO | 1512 | Microeconomics | 3 | 0 | 3 |
| OT | 1850 | Computerized Business Applications | 3 | 2 | 4 |
| | | | 15 | 14 | 20 |
| **FOURTH TERM** | | | | | |
| GC | 9223 | Cooperative Education - Graphics | 1 | 40 | 2 |
| **FIFTH TERM** | | | | | |
| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| SPE | 102X | Speech Elective | 3 | 0 | 3 |
| GC | 1422 | Graphic Design for Desktop Publishing | 2 | 2 | 3 |
| GC | 1429 | Screen Printing | 2 | 6 | 4 |
| PSY | 1502 | Human Relations-Applied Psychology | 3 | 0 | 3 |
| MKT | 2903 | Introduction to Marketing | 3 | 0 | 3 |
| | | | 16 | 8 | 19 |
| **SIXTH TERM** | | | | | |
| GC | 9223 | Cooperative Education - Graphics | 1 | 40 | 2 |
| **SEVENTH TERM** | | | | | |
| GC | 1430 | Label and Packaging Presswork 1 | 1 | 9 | 4 |
| GC | 1439 | Intoduction to Offset Presswork | 2 | 2 | 3 |
| GC | 1450 | Printing Estimating 2 | 2 | 3 | 3 |
| GC | 1481 | Computer Graphics for Printing 3 | 2 | 3 | 3 |
| LAW | 1823 | Business Law 1 | 3 | 0 | 3 |
| ACC | 2911 | Principles of Accounting 1 | 3 | 2 | 4 |
| | | | 13 | 19 | 20 |
| **EIGHTH TERM** | | | | | |
| GC | 9223 | Cooperative Education - Graphics | 1 | 40 | 2 |
| **NINTH TERM** | | | | | |
| GC | 1440 | Offset Presswork | 3 | 9 | 6 |
| GC | 1483 | Computer Graphics for Printing 4 | 2 | 3 | 3 |
| MGT | 2967 | Introduction to Management | 3 | 0 | 3 |
| BUS | 9233 | Business Competencies | 2 | 0 | 2 |
| | XXXX | Social Science Elective | 3 | 0 | 3 |
| | | | 13 | 12 | 17 |
| **TENTH TERM** | | | | | |
| GC | 9223 | Cooperative Education - Graphics | 1 | 40 | 2 |
| | | | | | 106 |

Speech Elective: SPE 1020, SPE 1022, SPE 1024

Social Science Elective: PSY 1503, PSY 1505, PSY 1506, PSY 1508, PSY 1509, PSY 1510; ECO 1513, ECO 1514; SOC 1521, SOC 1523, SOC 1524, SOC 1525, SOC 1526, SOC 1527, SOC 1528, SOC 1529; LBR 1535, LBR 1538, LBR 1539; HST 1561, HST 1562, HST 1563, HST 1568, HST 1569, HST 1570, HST 1575, HST 1576, HST 1577, HST 1578; GEO 1551, GEO 1552, GEO 1553

## GRAPHIC COMMUNICATIONS TECHNOLOGY - PACKAGING & ADVERTISING OPTION

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| MAT | 1121 | Business Mathematics 1 | 3 | 0 | 3 |
| GC | 1403 | Computer Graphics for Printing 1 | 2 | 6 | 4 |
| GC | 1415 | Graphic Arts Processes | 2 | 3 | 3 |
| GC | 1419 | Survey of Printing Inks | 3 | 0 | 3 |
| BUS | 2925 | Business Principles | 3 | 0 | 3 |
| BT | 9200 | Professional Practices | 1 | 0 | 1 |
| | | | 17 | 9 | 20 |
| **SECOND TERM** | | | | | |
| GC | 9223 | Cooperative Education - Graphics | 1 | 40 | 2 |
| **THIRD TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| GC | 1421 | Computer Graphics for Printing 2 | 2 | 6 | 4 |
| GC | 1449 | Printing Estimating 1 | 2 | 3 | 3 |
| GC | 1480 | Digital Photography & Printing | 2 | 3 | 3 |
| ECO | 1512 | Microeconomics | 3 | 0 | 3 |
| OT | 1850 | Computerized Business Applications | 3 | 2 | 4 |
| | | | 15 | 14 | 20 |
| **FOURTH TERM** | | | | | |
| GC | 9223 | Cooperative Education - Graphics | 1 | 40 | 2 |
| **FIFTH TERM** | | | | | |
| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| SPE | 102X | Speech Elective | 3 | 0 | 3 |
| GC | 1425 | Film and Plates for Packaging | 1 | 4 | 3 |
| GC | 1429 | Screen Printing | 2 | 6 | 4 |
| PSY | 1502 | Human Relations-Applied Psychology | 3 | 0 | 3 |
| MKT | 2903 | Introduction to Marketing | 3 | 0 | 3 |
| | | | 15 | 10 | 19 |
| **SIXTH TERM** | | | | | |
| GC | 9223 | Cooperative Education - Graphics | 1 | 40 | 2 |
| **SEVENTH TERM** | | | | | |
| GC | 1426 | Packaging and Advertising Processes | 3 | 0 | 3 |
| GC | 1430 | Label and Packaging Presswork 1 | 1 | 9 | 4 |
| GC | 1450 | Printing Estimating 2 | 2 | 3 | 3 |
| GC | 1481 | Computer Graphics for Printing 3 | 2 | 3 | 3 |
| LAW | 1823 | Business Law 1 | 3 | 0 | 3 |
| ACC | 2911 | Principles of Accounting 1 | 3 | 2 | 4 |
| | | | 14 | 17 | 20 |
| **EIGHTH TERM** | | | | | |
| GC | 9223 | Cooperative Education - Graphics | 1 | 40 | 2 |

| | | | | | |
|---|---|---|---|---|---|
| **NINTH TERM** | | | | | |
| GC | 1431 | Label and Packaging Presswork 2 | 3 | 9 | 6 |
| GC | 1483 | Computer Graphics for Printing 4 | 2 | 3 | 3 |
| MGT | 2967 | Introduction to Management | 3 | 0 | 3 |
| BUS | 9233 | Business Competencies | 2 | 0 | 2 |
| | XXXX | Social Science Elective | 3 | 0 | 3 |
| | | | 16 | 12 | 17 |
| **TENTH TERM** | | | | | |
| GC | 9223 | Cooperative Education - Graphics | 1 | 40 | 2 |
| | | | | | 106 |

Social Science Elective: PSY 1503, PSY 1505, PSY 1506, PSY 1508, PSY 1509, PSY 1510; ECO 1513, ECO 1514; SOC 1521, SOC 1523, SOC 1524, SOC 1525, SOC 1526, SOC 1527, SOC 1528, SOC 1529; LBR 1535, LBR 1538, LBR 1539; HST 1561, HST 1562, HST 1563, HST 1568, HST 1569, HST 1570, HST 1575, HST 1576, HST 1577, HST 1578; GEO 1551, GEO 1552, GEO 1553
Speech Elective: SPE 1020, SPE 1022, SPE 1024

## Hospitality Management Technologies

The Hospitality Management Technologies provide the knowledge and skills necessary for success in a wide range of positions in foodservice and lodging. Programs leading to associate degrees are available for Hotel Management, Restaurant Management, and Culinary Arts. In addition, a Culinary Arts Certificate is available. All programs include professional management classes certified by the National Restaurant Association. Associate degree programs require a cooperative education experience.

## Hotel Management Technology (HMT)

The Hotel Management program combines classroom instruction, laboratory experience, and cooperative education experience. Students learn basic hotel operation skills and progress to hotel management training. The Associate degree program prepares graduates to work in front office, housekeeping, accounting, and sales positions in lodging operations.

## HOTEL MANAGEMENT TECHNOLOGY

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| MAT | 1121 | Business Mathematics 1 | 3 | 0 | 3 |
| OT | 18XX | Computer Elective | 3 | 2 | 4 |
| HRM | 2801 | Food & Beverage Sanitation & Safety | 3 | 0 | 3 |
| HRM | 2802 | Food & Beverage Cost Control 1 | 3 | 0 | 3 |
| HRM | 2811 | Introduction to Hospitality Management | 3 | 0 | 3 |
| BT | 9200 | Professional Practices | 1 | 0 | 1 |
| | | | 19 | 2 | 20 |
| **SECOND TERM** | | | | | |
| HOSP | 9224 | Cooperative Education-Hospitality Technologies | 1 | 40 | 2 |
| **THIRD TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| MAT | 1122 | Business Mathematics 2 | 3 | 0 | 3 |
| HRM | 2808 | Food and Beverage Service Lab | 1 | 3 | 2 |
| HRM | 2812 | Hotel Front Office Procedure | 4 | 0 | 4 |
| HRM | 2813 | Hospitality Housekeeping | 3 | 0 | 3 |
| HRM | 2818 | Food & Beverage Cost Control 2 | 4 | 0 | 4 |
| | | | 18 | 3 | 19 |
| **FOURTH TERM** | | | | | |
| HOSP | 9224 | Cooperative Education-Hospitality Technologies | 1 | 40 | 2 |
| **FIFTH TERM** | | | | | |
| SPE | 1020 | Public Speaking | 3 | 0 | 3 |
| ENG | 10XX | English Elective | 3 | 0 | 3 |
| LAW | 18XX | Business Law Elective | 3 | 0 | 3 |
| ACC | 2911 | Principles of Accounting 1 | 3 | 2 | 4 |
| BUS | 2925 | Business Principles | 3 | 0 | 3 |
| | XXXX | Social Science Elective | 3 | 0 | 3 |
| | | | 18 | 2 | 19 |
| **SIXTH TERM** | | | | | |
| HOSP | 9224 | Cooperative Education-Hospitality Technologies | 1 | 40 | 2 |
| **SEVENTH TERM** | | | | | |
| MGT | 1832 | Human Resource Management | 3 | 0 | 3 |
| HRM | 2805 | Food & Beverage Supervision | 3 | 0 | 3 |
| HRM | 2821 | Hospitality Sales & Marketing | 3 | 0 | 3 |
| ACC | 2912 | Principles of Accounting 2 | 4 | 0 | 4 |
| BUS | 9233 | Business Competencies | 2 | 0 | 2 |
| | XXXX | Social Science Elective | 3 | 0 | 3 |
| | | | 18 | 0 | 18 |
| **EIGHTH TERM** | | | | | |
| HOSP | 9224 | Cooperative Education-Hospitality Technologies | 1 | 40 | 2 |
| **NINTH TERM** | | | | | |
| LBR | 1539 | Introduction to Employment and Workplace Law 1 | 3 | 0 | 3 |
| HRM | 2804 | Catering & Banquets | 3 | 0 | 3 |
| HRM | 2806 | Hospitality Beverage Management | 3 | 0 | 3 |
| HRM | 28XX | Restaurant Technical Elective | 3 | 0 | 3 |
| HRM | 28XX | Restaurant Technical Elective | 2 | 4 | 3 |
| BUS | 2973 | Business Ethics | 3 | 0 | 3 |
| | | | 17 | 4 | 18 |
| **TENTH TERM** | | | | | |
| HOSP | 9224 | Cooperative Education-Hospitality Technologies | 1 | 40 | 2 |
| | | | | | 104 |

English Elective: ENG 1003, ENG 1010
Social Science Elective: Any PSY, SOC, GEO, LBR, HST, ECO
Restaurant Technology Elective: HRM 2803, HRM 2828, HRM 2830, HRM 2840
Computer Elective: OT 1850, OT 1861, OT 1863
Business Law Elective: LAW 1823, LAW 1825

## Restaurant Management Technology (RMT)

The Restaurant Management program combines classroom instruction, laboratory experience, and required cooperative education experience. Students learn basic restaurant operation skills and progress to restaurant management training. The Associate degree program prepares graduates for supervisory positions in a variety of food service operations.

## RESTAURANT MANAGEMENT TECHNOLOGY

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| MAT | 1121 | Business Mathematics 1 | 3 | 0 | 3 |
| HRM | 2801 | Food & Beverage Sanitation & Safety | 3 | 0 | 3 |
| HRM | 2802 | Food & Beverage Cost Control 1 | 3 | 0 | 3 |
| HRM | 2811 | Introduction to Hospitality Management | 3 | 0 | 3 |
| BT | 9200 | Professional Practices | 1 | 0 | 1 |
| | | | 16 | 0 | 16 |
| **SECOND TERM** | | | | | |
| HOSP | 9224 | Cooperative Education-Hospitality Technologies | 1 | 40 | 2 |
| **THIRD TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| MAT | 1122 | Business Mathematics 2 | 3 | 0 | 3 |
| OT | 18XX | Computer Elective | 3 | 2 | 4 |
| HRM | 2808 | Food and Beverage Service Lab | 1 | 3 | 2 |
| HRM | 2818 | Food & Beverage Cost Control 2 | 4 | 0 | 4 |

| | | | | | |
|---|---|---|---|---|---|
| HRM | 2828 | Nutrition for Food Service | 2 | 2 | 3 |
| | | | 16 | 7 | 19 |
| **FOURTH TERM** | | | | | |
| HOSP | 9224 | Cooperative Education-Hospitality Technologies | 1 | 40 | 2 |
| **FIFTH TERM** | | | | | |
| SPE | 1020 | Public Speaking | 3 | 0 | 3 |
| ENG | 10XX | English Elective | 3 | 0 | 3 |
| ECO | 1512 | Microeconomics | 3 | 0 | 3 |
| LAW | 18XX | Business Law Elective | 3 | 0 | 3 |
| ACC | 2911 | Principles of Accounting 1 | 3 | 2 | 4 |
| BUS | 2925 | Business Principles | 3 | 0 | 3 |
| | | | 18 | 2 | 19 |
| **SIXTH TERM** | | | | | |
| HOSP | 9224 | Cooperative Education-Hospitality Technologies | 1 | 40 | 2 |
| **SEVENTH TERM** | | | | | |
| MGT | 1832 | Human Resource Management | 3 | 0 | 3 |
| HRM | 2805 | Food & Beverage Supervision | 3 | 0 | 3 |
| HRM | 2821 | Hospitality Sales & Marketing | 3 | 0 | 3 |
| ACC | 2912 | Principles of Accounting 2 | 4 | 0 | 4 |
| BUS | 2973 | Business Ethics | 3 | 0 | 3 |
| BUS | 9233 | Business Competencies | 2 | 0 | 2 |
| | XXXX | Social Science Elective | 3 | 0 | 3 |
| | | | 21 | 0 | 21 |
| **EIGHTH TERM** | | | | | |
| HOSP | 9224 | Cooperative Education-Hospitality Technologies | 1 | 40 | 2 |
| **NINTH TERM** | | | | | |
| LBR | 1539 | Introduction to Employment and Workplace Law 1 | 3 | 0 | 3 |
| HRM | 2803 | Menu Production & Facilities Planning | 3 | 0 | 3 |
| HRM | 2804 | Catering & Banquets | 3 | 0 | 3 |
| HRM | 2806 | Hospitality Beverage Management | 3 | 0 | 3 |
| HRM | 2830 | Fundamentals of Cooking | 2 | 4 | 4 |
| HRM | 2840 | Restaurant Operations | 4 | 0 | 4 |
| | | | 18 | 4 | 20 |
| **TENTH TERM** | | | | | |
| HOSP | 9224 | Cooperative Education-Hospitality Technologies | 1 | 40 | 2 |
| | | | | | 105 |

English Elective: ENG 1003, ENG 1010
Social Science Elective: Any PSY, SOC, ECO, LBR, GEO, HST
Computer Elective: OT 1850, OT 1861, OT 1863
Business Law Elective: LAW 1823, LAW 1825

## Culinary Arts (CUL)

The Culinary Arts program trains students in all aspects of culinary arts including soups, sauces, butchery, basic cookery, a la carte preparation, hors d'oeuvres, ice carving, garde manger, pastry and confectioneries, as well as vital areas of culinary management. The Associate degree program prepares graduates for employment in hotel, restaurant, country club and resort kitchens. The program is accredited by the American Culinary Federation Educational Institute.

## CULINARY ARTS

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| MAT | 1121 | Business Mathematics 1 | 3 | 0 | 3 |
| HRM | 2801 | Food & Beverage Sanitation & Safety | 3 | 0 | 3 |
| HRM | 2802 | Food & Beverage Cost Control 1 | 3 | 0 | 3 |
| HRM | 2811 | Introduction to Hospitality Management | 3 | 0 | 3 |
| CUL | 2822 | Basic Cooking 1 | 2 | 6 | 4 |
| CUL | 2831 | Theory of Cooking | 3 | 0 | 3 |
| BT | 9200 | Professional Practices | 1 | 0 | 1 |
| | | | 18 | 6 | 20 |
| **SECOND TERM** | | | | | |
| HOSP | 9224 | Cooperative Education-Hospitality Technologies | 1 | 40 | 2 |
| **THIRD TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| MAT | 1122 | Business Mathematics 2 | 3 | 0 | 3 |
| HRM | 2808 | Food and Beverage Service Lab | 1 | 3 | 2 |
| HRM | 2818 | Food & Beverage Cost Control 2 | 4 | 0 | 4 |
| CUL | 2823 | Basic Cooking 2 | 2 | 4 | 4 |
| HRM | 2828 | Nutrition for Food Service | 2 | 2 | 3 |
| | | | 15 | 9 | 19 |
| **FOURTH TERM** | | | | | |
| HOSP | 9224 | Cooperative Education-Hospitality Technologies | 1 | 40 | 2 |
| **FIFTH TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| LAW | 18XX | Business Law Elective | 3 | 0 | 3 |
| OT | 18XX | Computer Elective | 3 | 2 | 4 |
| CUL | 2824 | Advanced Cooking 1 | 2 | 3 | 3 |
| BUS | 2925 | Business Principles | 3 | 0 | 3 |
| | | | 14 | 5 | 16 |
| **SIXTH TERM** | | | | | |
| HOSP | 9224 | Cooperative Education-Hospitality Technologies | 1 | 40 | 2 |
| **SEVENTH TERM** | | | | | |
| PSY | 1505 | Introduction to Psychology 1 | 3 | 0 | 3 |
| HRM | 2805 | Food & Beverage Supervision | 3 | 0 | 3 |
| HRM | 2821 | Hospitality Sales & Marketing | 3 | 0 | 3 |
| CUL | 2825 | Pastry & Confectionery | 4 | 6 | 6 |
| ACC | 2911 | Principles of Accounting 1 | 3 | 2 | 4 |
| BUS | 9233 | Business Competencies | 2 | 0 | 2 |
| | | | 18 | 8 | 21 |
| **EIGHTH TERM** | | | | | |
| HOSP | 9224 | Cooperative Education-Hospitality Technologies | 1 | 40 | 2 |
| **NINTH TERM** | | | | | |
| SPE | 1020 | Public Speaking | 3 | 0 | 3 |
| ENG | 10XX | English Elective | 3 | 0 | 3 |
| ECO | 1512 | Microeconomics | 3 | 0 | 3 |
| HRM | 2803 | Menu Production & Facilities Planning | 3 | 0 | 3 |
| CUL | 2826 | Advanced Cooking 2 | 4 | 6 | 6 |
| | XXXX | Social Science Elective | 3 | 0 | 3 |
| | | | 19 | 6 | 21 |
| **TENTH TERM** | | | | | |
| HOSP | 9224 | Cooperative Education-Hospitality Technologies | 1 | 40 | 2 |
| | | | | | 107 |

Social Science Elective: Any ECO, PSY, SOC, LBR, HST, GEO
English Elective: ENG 1003, ENG 1010
Computer Elective: OT 1850, OT 1861, OT 1863
Business Law Elective: LAW 1823, LAW 1825

## Culinary Arts Certificate (CAC)

The Culinary Arts Certificate provides technical skills and theoretical knowledge for food service employees. This one-year evening program includes the courses required for the American Culinary Federation Educational Institute certification.

## CULINARY ARTS CERTIFICATE

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| CHT | 2822 | Basic Cooking 1 | 2 | 6 | 4 |
| CHT | 2831 | Theory of Cooking | 3 | 0 | 3 |
| | | | 5 | 6 | 7 |
| **SECOND TERM** | | | | | |
| HRM | 2801 | Food & Beverage Sanitation & Safety | 3 | 0 | 3 |

| | | | | | |
|---|---|---|---|---|---|
| CHT | 2832 | Preparation and Cooking | 2 | 3 | 3 |
| | | | 5 | 3 | 6 |
| **THIRD TERM** | | | | | |
| HRM | 2802 | Food & Beverage Cost Control & Purch 1 | 3 | 0 | 3 |
| CHT | 2833 | Basic Baking | 2 | 3 | 3 |
| | | | 5 | 3 | 6 |
| **FOURTH TERM** | | | | | |
| HRM | 2828 | Nutrition for Food Service | 2 | 2 | 3 |
| CHT | 2834 | Advanced Baking | 2 | 3 | 3 |
| | | | 4 | 5 | 6 |
| **FIFTH TERM** | | | | | |
| HRM | 2805 | Food & Beverage Supervision | 3 | 0 | 3 |
| CHT | 2835 | Production Cooking | 3 | 3 | 4 |
| | | | 6 | 3 | 7 |
| | | | | | 32 |

Business Elective: Any HRM, CHT, MGT, BUS, MIS

## International Trade Management Technology (ITM)

The International Trade Management Technology program trains students for beginning work assignments in the rapidly expanding field of international trade, marketing and operations. Students receive training in the areas of international banking, manufacturing, shipping and related services relevant to international traders. In order to participate in cooperative education, students entering this technology must double major in Business Management or another related business technology. Graduates will be prepared to facilitate import/export documentation, convert currency and apply cultural and language requirements of foreign markets.

## INTERNATIONAL TRADE MANAGEMENT TECHNOLOGY

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| MAT | 1121 | Business Mathematics 1 | 3 | 0 | 3 |
| OT | 1850 | Computerized Business Applications | 3 | 2 | 4 |
| BUS | 2925 | Business Principles | 3 | 0 | 3 |
| ITM | 2980 | Introduction to International Business | 3 | 0 | 3 |
| BT | 9200 | Professional Practices | 1 | 0 | 1 |
| | XXXX | Foreign Language Elective 1 | 4 | 0 | 4 |
| | | | 20 | 2 | 21 |
| **SECOND TERM** | | | | | |
| ITM | 9252 | Cooperative Education International Trade Management | 1 | 40 | 2 |
| **THIRD TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| MAT | 1122 | Business Mathematics 2 | 3 | 0 | 3 |
| ECO | 151X | Economics Elective | 3 | 0 | 3 |
| MKT | 2901 | Principles of Marketing 1 | 3 | 0 | 3 |
| ITM | 2983 | International Orders Processing & Shipping | 3 | 0 | 3 |
| | XXXX | Foreign Language Elective 2 | 4 | 0 | 4 |
| | | | 19 | 0 | 19 |
| **FOURTH TERM** | | | | | |
| ITM | 9252 | Cooperative Education International Trade Management | 1 | 40 | 2 |
| **FIFTH TERM** | | | | | |
| MAT | 1123 | Business Mathematics 3 | 3 | 0 | 3 |
| MKT | 1810 | Principles of Sales | 3 | 0 | 3 |
| MKT | 2902 | Principles of Marketing 2 | 3 | 0 | 3 |
| MGT | 2965 | Principles of Management 1 | 3 | 0 | 3 |
| ITM | 2981 | International Marketing | 3 | 0 | 3 |
| | XXXX | Foreign Language Elective 3 | 4 | 0 | 4 |
| | | | 19 | 0 | 19 |
| **SIXTH TERM** | | | | | |
| ITM | 9252 | Cooperative Education International Trade Management | 1 | 40 | 2 |
| **SEVENTH TERM** | | | | | |
| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| LAW | 1823 | Business Law 1 | 3 | 0 | 3 |
| ACC | 2911 | Principles of Accounting 1 | 3 | 2 | 4 |
| MGT | 2966 | Principles of Management 2 | 3 | 0 | 3 |
| ITM | 2982 | International Banking & Finance | 3 | 0 | 3 |
| | XXXX | Social Science Elective | 3 | 0 | 3 |
| | | | 18 | 2 | 19 |
| **EIGHTH TERM** | | | | | |
| ITM | 9252 | Cooperative Education International Trade Management | 1 | 40 | 2 |
| | | | 1 | 40 | 2 |
| **NINTH TERM** | | | | | |
| SPE | 102X | Speech Elective | 3 | 0 | 3 |
| GEO | 155X | Geography Elective | 3 | 0 | 3 |
| LAW | 1824 | Business Law 2 | 3 | 0 | 3 |
| OT | 186X | Electronic Spreadsheets Elective | 2 | 2 | 3 |
| ACC | 2912 | Principles of Accounting 2 | 4 | 0 | 4 |
| BUS | 9233 | Business Competencies | 2 | 0 | 2 |
| | | | 17 | 2 | 18 |
| **TENTH TERM** | | | | | |
| ITM | 9252 | Cooperative Education International Trade Management | 1 | 40 | 2 |
| | | | | | 106 |

Electronic Spreadsheets Elective: OT 1861, OT 1863
Speech Elective: SPE 1020, SPE 1022, SPE 1024
Social Science Elective: PSY 1502, PSY 1505, SOC 1521, SOC 1524, LBR 1535, PHI 1625
Economics Elective: ECO 1512, ECO 1513, ECO 1514
Geography Elective: GEO 1551, GEO 1552, GEO 1553
Foreign Language Elective: FRN 1060, FRN 1061, FRN 1062, FRN 1063, FRN 1064, FRN 1065, GRM 1070, GRM 1071, GRM 1072, GRM 1073, GRM 1074, GRM 1075, SPB 1077, SPB 1078, SPB 1079, SPN 1083, SPN 1084, SPN 1085

## Landscape Horticulture Technologies (LH/TUR/CM)

Programs in the Landscape Horticulture Technologies provide the knowledge & skills necessary for several careers in the "Green Industry". Three majors leading to an associate degree and one certificate program are available.

## Landscape Horticulture Technology (LH)

The Landscape Horticulture major (focusing on landscape design, installation, and management) allows for specialization in a number of allied fields including arboriculture, nursery and greenhouse management. Because of the unique seasonal employment opportunities of horticulturally related jobs, these degree programs follow a different co-op schedule than the rest of the college. Students spend two terms during the growing season in cooperative employment during each of the two years of the program.

## LANDSCAPE HORTICULTURE TECHNOLOGY

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| MAT | 11X1 | Math Elective | 3 | 2 | 4 |
| LH | 3502 | Horticulture Science | 2 | 2 | 3 |
| LH | 3504 | Woody Plant Materials 1 | 2 | 3 | 3 |
| LH | 3508 | Turfgrass Management | 2 | 2 | 3 |

| | | | | | |
|---|---|---|---|---|---|
| BT | 9200 | Professional Practices | 1 | 0 | 1 |
| | | | 13 | 9 | 17 |
| **SECOND TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| MAT | 11X2 | Math Elective | 3 | 2 | 4 |
| CHE | 22XX | Chemistry Elective | 3 | 3 | 4 |
| LH | 3500 | Orientation to Horticulture Occupations | 1 | 0 | 1 |
| LH | 3510 | Small Engine Maintenance & Repair | 2 | 2 | 3 |
| LH | 3532 | Landscape Management | 2 | 3 | 3 |
| | | | 14 | 10 | 18 |
| **THIRD TERM** | | | | | |
| PSY | 1502 | Human Relations-Applied Psychology | 3 | 0 | 3 |
| ACC | 29XX | Accounting Elective | 3 | 0 | 3 |
| LH | 3501 | Soils and Plant Nutrition | 2 | 2 | 3 |
| LH | 3509 | Landscape Design 1 | 2 | 3 | 3 |
| LH | 3523 | Horticulture Entomology | 2 | 2 | 3 |
| BUS | 9234 | Business Competencies 1 | 1 | 0 | 1 |
| | | | 13 | 7 | 16 |
| **FOURTH TERM** | | | | | |
| LH | 9225 | Cooperative Ed Landscape Hort./Turf Mgt. | 1 | 40 | 2 |
| **FIFTH TERM** | | | | | |
| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| LH | 3505 | Introduction to Herbaceous Plant Materials | 2 | 2 | 3 |
| LH | 3511 | Introduction to Landscape Construction | 2 | 3 | 3 |
| LH | 3520 | Horticulture Lab | 0 | 3 | 1 |
| LH | 3524 | Plant Pathology | 2 | 2 | 3 |
| LH | 35XX | Technical Elective | 2 | 3 | 3 |
| | | | 11 | 13 | 16 |
| **SIXTH TERM** | | | | | |
| LH | 9225 | Cooperative Ed Landscape Hort./Turf Mgt. | 1 | 40 | 2 |
| **SEVENTH TERM** | | | | | |
| SPE | 102X | Speech Elective | 3 | 0 | 3 |
| ECO | 151X | Economics Elective | 3 | 0 | 3 |
| OT | 1850 | Computerized Business Applications | 3 | 2 | 4 |
| BUS | 2925 | Business Principles | 3 | 0 | 3 |
| LH | 3515 | Woody Plant Materials 2 | 2 | 3 | 3 |
| LH | 35XX | Technical Elective | 2 | 3 | 3 |
| | | | 16 | 8 | 19 |
| **EIGHTH TERM** | | | | | |
| MKT | 1810 | Principles of Sales | 3 | 0 | 3 |
| LAW | 1823 | Business Law 1 | 3 | 0 | 3 |
| LH | 35XX | Technical Elective | 2 | 3 | 3 |
| LH | 35XX | Technical Elective | 2 | 3 | 3 |
| BUS | 9235 | Business Competencies 2 | 1 | 0 | 1 |
| | XXXX | Social Science Elective | 3 | 0 | 3 |
| | | | 14 | 6 | 16 |
| **NINTH TERM** | | | | | |
| LH | 9225 | Cooperative Ed Landscape Hort./Turf Mgt. | 1 | 40 | 2 |
| **TENTH TERM** | | | | | |
| LH | 9225 | Cooperative Ed Landscape Hort./Turf Mgt. | 1 | 40 | 2 |
| | | | | | 110 |

Accounting Elective: ACC 2911 or ACC 2924
Chemistry Elective: CHE 2200, CHE 2231, CHE 2232
Technical Elective: LH 3506, LH 3507, LH 3513, LH 3516, LH 3517, LH 3518, LH 3519, LH 3528, LH 3529, LH 3533, LH 3534, LH 3535, LH 3536, LH 3537, LH 3538, LH 3539, LH 3540, LH 3544, LH 3546, LH 3547, LH 3548
Speech Elective: SPE 1020, SPE 1022, SPE 1024
Economics Elective: ECO 1512, ECO 1513
Social Science Elective: Any PSY, SOC, GEO, LBR, HST, ECO
Math Elective: MAT 1161, MAT 1162, or MAT 1171, MAT 1172, or MAT 1191, MAT 1192

## Turfgrass Management (TUR)

The Turfgrass Management major concentrates on the areas of golf course management, sports turf management and professional lawn care. The certificate in Turfgrass Management is intended for individuals already in management positions in turf-related industries who desire credentials in their technical area.

## LANDSCAPE HORTICULTURE TECHNOLOGY - TURFGRASS MANAGEMENT MAJOR

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| MAT | 11XX | Math Elective | 3 | 2 | 4 |
| LH | 3502 | Horticulture Science | 2 | 2 | 3 |
| LH | 3504 | Woody Plant Materials 1 | 2 | 3 | 3 |
| LH | 3508 | Turfgrass Management | 2 | 2 | 3 |
| BT | 9200 | Professional Practices | 1 | 0 | 1 |
| | | | 13 | 9 | 17 |
| **SECOND TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| MAT | 11X2 | Math Elective | 3 | 2 | 4 |
| CHE | 22XX | Chemistry Elective | 3 | 3 | 4 |
| LH | 3510 | Small Engine Maintenance & Repair | 2 | 2 | 3 |
| LH | 3526 | Introduction to Golf and Turf Management | 1 | 1 | 1 |
| LH | 3532 | Landscape Management | 2 | 3 | 3 |
| | | | 14 | 11 | 18 |
| **THIRD TERM** | | | | | |
| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| PSY | 1502 | Human Relations-Applied Psychology | 3 | 0 | 3 |
| ACC | 29XX | Accounting Elective | 3 | 0 | 3 |
| LH | 3501 | Soils and Plant Nutrition | 2 | 2 | 3 |
| LH | 3509 | Landscape Design 1 | 2 | 3 | 3 |
| LH | 3523 | Horticulture Entomology | 2 | 2 | 3 |
| BUS | 9234 | Business Competencies 1 | 1 | 0 | 1 |
| | | | 16 | 7 | 19 |
| **FOURTH TERM** | | | | | |
| LH | 9225 | Cooperative Ed Landscape Hort./Turf Mgt. | 1 | 40 | 2 |
| **FIFTH TERM** | | | | | |
| LH | 3505 | Introduction to Herbaceous Plant Materials | 2 | 2 | 3 |
| LH | 3511 | Introduction to Landscape Construction | 2 | 3 | 3 |
| LH | 3520 | Horticulture Lab | 0 | 3 | 1 |
| LH | 3524 | Plant Pathology | 2 | 2 | 3 |
| LH | 3537 | Turfgrass Pests | 2 | 2 | 3 |
| | | | 8 | 12 | 13 |
| **SIXTH TERM** | | | | | |
| LH | 9225 | Cooperative Ed Landscape Hort./Turf Mgt. | 1 | 40 | 2 |
| **SEVENTH TERM** | | | | | |
| SPE | 102X | Speech Elective | 3 | 0 | 3 |
| ECO | 151X | Economics Elective | 3 | 0 | 3 |
| OT | 1850 | Computerized Business Applications | 3 | 2 | 4 |
| BUS | 2925 | Business Principles | 3 | 0 | 3 |
| LH | 3533 | Landscape Irrigation | 2 | 2 | 3 |
| LH | 3536 | Turfgrass Culture | 2 | 2 | 3 |
| | | | 16 | 6 | 19 |
| **EIGHTH TERM** | | | | | |
| MKT | 1810 | Principles of Sales | 3 | 0 | 3 |
| LAW | 1823 | Business Law 1 | 3 | 0 | 3 |
| LH | 3529 | Landscape Grading, Drainage and Survey | 2 | 3 | 3 |
| LH | 3538 | Turfgrass Practices | 2 | 2 | 3 |
| BUS | 9235 | Business Competencies 2 | 1 | 0 | 1 |
| | XXXX | Social Science Elective | 3 | 0 | 3 |
| | | | 14 | 5 | 16 |
| **NINTH TERM** | | | | | |
| LH | 9225 | Cooperative Ed Landscape Hort./Turf Mgt. | 1 | 40 | 2 |
| **TENTH TERM** | | | | | |
| LH | 9225 | Cooperative Ed Landscape Hort./Turf Mgt. | 1 | 40 | 2 |
| | | | | | 110 |

Accounting Elective: ACC 2911 or ACC 2924
Chemistry Elective: CHE 2200, CHE 2231, CHE 2232
Speech Elective: SPE 1020, SPE 1022, SPE 1024

Economics Elective: ECO 1512, ECO 1513
Social Science Elective: Any PSY, SOC, GEO, LBR, HST, ECO
Math Elective: MAT 1161, MAT 1162, or MAT 1171, MAT 1172, or MAT 1191, MAT 1192

## TURFGRASS MANAGEMENT CERTIFICATE (TURC)

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| MAT | 1161 | Applied Algebra | 3 | 2 | 4 |
| LH | 3508 | Turfgrass Management | 2 | 2 | 3 |
| | | | 5 | 4 | 7 |
| **SECOND TERM** | | | | | |
| LH | 3502 | Horticulture Science | 2 | 2 | 3 |
| LH | 3526 | Introduction to Golf and Turf Management | 2 | 0 | 2 |
| LH | 35XX | Horticulture Elective | 2 | 2 | 3 |
| | | | 6 | 4 | 8 |
| **THIRD TERM** | | | | | |
| LH | 3501 | Soils and Plant Nutrition | 2 | 2 | 3 |
| LH | 35XX | Horticulture Elective | 2 | 2 | 3 |
| | | | 4 | 4 | 6 |
| **FOURTH TERM** | | | | | |
| LH | 3536 | Turfgrass Culture | 2 | 2 | 3 |
| LH | 3538 | Turfgrass Practices | 2 | 2 | 3 |
| | | | 4 | 4 | 6 |
| **FIFTH TERM** | | | | | |
| LH | 3529 | Landscape Grading, Drainage and Surveying | 2 | 3 | 3 |
| LH | 3537 | Turfgrass Pests | 2 | 2 | 3 |
| | | | 4 | 5 | 6 |
| | | | | | 33 |

Horticulture Elective: LH 3504, LH 3505, LH 3506, LH 3507, LH 3509, LH 3510, LH 3528, LH 3533, LH 3523, LH 3511, LH 3517, LH 3524, LH 3532

## Cemetery Management Technology (CM)

The Cemetery Management program, taught in conjunction with the Cincinnati College of Mortuary Science, is an innovative blend of plant sciences and business management particularly suited to the specialized area of interment services.

## CEMETERY MANAGEMENT TECHNOLOGY

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| MAT | 1121 | Business Mathematics 1 | 3 | 0 | 3 |
| LH | 3502 | Horticulture Science | 2 | 2 | 3 |
| LH | 3504 | Woody Plant Materials 1 | 2 | 3 | 3 |
| LH | 3508 | Turfgrass Management | 2 | 2 | 3 |
| | | | 12 | 7 | 15 |
| **SECOND TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| MAT | 1161 | Applied Algebra | 3 | 2 | 4 |
| LH | 3532 | Landscape Management | 2 | 3 | 3 |
| BIO | 4071 | Concepts of Biology 1 | 3 | 2 | 4 |
| BT | 9200 | Professional Practices | 1 | 0 | 1 |
| | | | 12 | 7 | 15 |
| **THIRD TERM** | | | | | |
| PSY | 1505 | Introduction to Psychology 1 | 3 | 0 | 3 |
| LAW | 1823 | Business Law 1 | 3 | 0 | 3 |
| CHE | 22XX | Chemistry Elective | 4 | 2 | 5 |
| LH | 3501 | Soils and Plant Nutrition | 2 | 2 | 3 |
| BUS | 9234 | Business Competencies 1 | 1 | 0 | 1 |
| | | | 13 | 4 | 15 |
| **FOURTH TERM** | | | | | |
| SSC | 1598 | Topics in Social Sciences | 3 | 0 | 3 |
| LH | 3599 | Studies in Cemetery Management | 3 | 0 | 3 |
| CM | 9251 | Cooperative Education Cemetery Management-Parallel | 1 | 20 | 1 |
| | | | 7 | 20 | 7 |
| **FIFTH TERM** | | | | | |
| LH | 3599 | Studies in Cemetery Management | 3 | 2 | 4 |
| CM | 9251 | Cooperative Education Cemetery Management-Parallel | 1 | 20 | 1 |
| | | | 4 | 22 | 5 |
| **SIXTH TERM** | | | | | |
| ENG | 1011 | Business Communications | 3 | 0 | 3 |
| ECO | 1512 | Microeconomics | 3 | 0 | 3 |
| MKT | 1810 | Principles of Sales | 3 | 0 | 3 |
| OT | 1850 | Computerized Business Applications | 3 | 2 | 4 |
| BUS | 2925 | Business Principles | 3 | 0 | 3 |
| | | | 15 | 2 | 16 |
| **SEVENTH TERM** | | | | | |
| SPE | 1020 | Public Speaking | 3 | 0 | 3 |
| FIN | 1804 | Risk & Insurance | 3 | 0 | 3 |
| MGT | 2967 | Introduction to Management | 3 | 0 | 3 |
| MGT | 2996 | Project Management | 2 | 2 | 3 |
| ACC | 29XX | Accounting Elective | 3 | 0 | 3 |
| LH | 35XX | Technical Elective | 2 | 3 | 3 |
| | | | 16 | 5 | 18 |
| **EIGHTH TERM** | | | | | |
| SPE | 1024 | Group Dynamics & Problem Solving | 3 | 0 | 3 |
| MGT | 1832 | Human Resource Management | 3 | 0 | 3 |
| BUS | 2973 | Business Ethics | 3 | 0 | 3 |
| LH | 3548 | Cemetery Operations & Facilities Management | 2 | 2 | 3 |
| EVET | 7670 | Regulations & Permits | 2 | 3 | 3 |
| BUS | 9235 | Business Competencies 2 | 1 | 0 | 1 |
| | | | 14 | 5 | 16 |
| **NINTH TERM** | | | | | |
| CM | 9250 | Cooperative Education Cemetery Management | 1 | 40 | 2 |
| **TENTH TERM** | | | | | |
| CM | 9250 | Cooperative Education Cemetery Management | 1 | 40 | 2 |
| | | | | | 110 |

Accounting Elective: ACC 2911, ACC 2924
Chemistry Elective: CHE 2200, CHE 2231, CHE 2232
Technical Elective: LH 3507, LH 3509, LH 3510, LH 3529, LH 3540
Courses to be taken at the College of Mortuary Science:
Fourth Term: #360 Cremation Fundamentals, #442 Cemetery Issues and #300 History of Funeral Service
Fifth Term: #400 Psychology of Grief and Counseling Procedures
SSC 1598 to be taken at the College of Mortuary Science: #310 Social Aspects of Death and Dying

## Marketing Management (MMT)

Marketing deals with identifying potential customers for a product or a service and influencing their buying behavior. The Marketing Management program teaches students to deal with the four fundamentals of marketing: product (conception, development, modification), promotion (advertising, personal selling, sales promotion, publicity), price (strategy, calculation), and distribution (transportation, warehousing, risk taking). Students also learn how government regulations, the economy, technology, and other factors affect marketing. This program prepares students for jobs providing sales leadership, managing retail operations, developing promotional activities or overseeing distribution.

## MARKETING MANAGEMENT TECHNOLOGY

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| MAT | 1121 | Business Mathematics 1 | 3 | 0 | 3 |
| ECO | 151X | Economics Elective | 3 | 0 | 3 |
| OT | 1850 | Computerized Business Applications | 3 | 2 | 4 |
| MKT | 2901 | Principles of Marketing 1 | 3 | 0 | 3 |
| BUS | 2925 | Business Principles | 3 | 0 | 3 |
| BT | 9200 | Professional Practices | 1 | 0 | 1 |
| | | | 19 | 2 | 20 |
| **SECOND TERM** | | | | | |
| BUS | 9222 | Cooperative Education Business Management/ Marketing Management | 1 | 40 | 2 |
| **THIRD TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| SPE | 102X | Speech Elective | 3 | 0 | 3 |
| MAT | 1122 | Business Mathematics 2 | 3 | 0 | 3 |
| OT | 186X | Electronic Spreadsheets Elective | 2 | 2 | 3 |
| MKT | 2902 | Principles of Marketing 2 | 3 | 0 | 3 |
| MGT | 2965 | Principles of Management 1 | 3 | 0 | 3 |
| | | | 17 | 2 | 18 |
| **FOURTH TERM** | | | | | |
| BUS | 9222 | Cooperative Education Business Management /Marketing Management | 1 | 40 | 2 |
| **FIFTH TERM** | | | | | |
| MAT | 1123 | Business Mathematics 3 | 3 | 0 | 3 |
| MKT | 1810 | Principles of Sales | 3 | 0 | 3 |
| MKT | 1844 | Principles of Advertising | 3 | 0 | 3 |
| ACC | 2911 | Principles of Accounting 1 | 3 | 2 | 4 |
| MGT | 2966 | Principles of Management 2 | 3 | 0 | 3 |
| ITM | 2981 | International Marketing | 3 | 0 | 3 |
| | | | 18 | 2 | 19 |
| **SIXTH TERM** | | | | | |
| BUS | 9222 | Cooperative Education Business Management/ Marketing Management | 1 | 40 | 2 |
| **SEVENTH TERM** | | | | | |
| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| LAW | 1823 | Business Law 1 | 3 | 0 | 3 |
| ACC | 2912 | Principles of Accounting 2 | 4 | 0 | 4 |
| MKT | 2923 | Marketing Concepts & Applications | 3 | 0 | 3 |
| FIN | 2960 | Principles of Finance 1 | 3 | 0 | 3 |
| | XXXX | Social Science Elective | 3 | 0 | 3 |
| | | | 19 | 0 | 19 |
| **EIGHTH TERM** | | | | | |
| BUS | 9222 | Cooperative Education Business Management/ Marketing Management | 1 | 40 | 2 |
| **NINTH TERM** | | | | | |
| MKT | 1845 | Principles of Retail Management | 3 | 0 | 3 |
| ACC | 2913 | Principles of Accounting 3 | 4 | 0 | 4 |
| MGT | 2975 | Business Management Seminar | 2 | 3 | 3 |
| MGT | 2989 | Customer Service Systems | 3 | 0 | 3 |
| BUS | 9233 | Business Competencies | 2 | 0 | 2 |
| | XXXX | Social Science Elective | 3 | 0 | 3 |
| | XXXX | Business Elective | 3 | 0 | 3 |
| | | | 20 | 3 | 21 |
| **TENTH TERM** | | | | | |
| BUS | 9222 | Cooperative Education Business Management/ Marketing Management | 1 | 40 | 2 |
| | | | | | 107 |

Speech Elective: SPE 1020, SPE 1022, SPE 1024
Economics Elective: ECO 1512, ECO 1513, ECO 1514
Business Elective: MGT 2970, MGT 2971, MGT 2988, MGT 2989, MGT 2990, LAW 1824, FIN 2961, BUS 2973, PUR 1817, ITM 2980
Social Science Elective: PSY 1502, PSY 1505, SOC 1521, SOC 1524, LBR 1535, PHI 1625
Electronic Spreadsheets Elective: OT 1861, OT 1863

## Office Technologies

The Office Technologies area offers three programs leading to Associate degrees: Executive Assistant, Office Management, and Office Information Processing. Students may earn a certificate in Office Support. The curriculums include not only technical skill development but also courses in business principles and management.

Executive Assistant training develops competencies in office procedures, information processing, communications, organizational skills, time management, project management, and computer use. Graduates can expect to work as Administrative or Executive Assistants with top-level executives as a part of the management team.

Office Management training further develops the fundamental skills necessary for supervision, office management, information processing, accounting, spreadsheet organization, and other techniques that provide the base for a range of office jobs. Graduates can expect to work in positions that assist key personnel with the timely and efficient flow of office functions.

Office Information Processing training develops computer skills and management procedures for processing large volumes of information – text, spreadsheets, and graphics. Hands-on classroom experience on state-of-the-art equipment and popular software packages is the mainstay in the curriculum. Graduates can expect to work in positions that provide information processing support to management or as Information Processing Managers.

Students who wish to develop marketable office skills in a short period of time may be interested in the Office Support Certificate. Students learn office procedures, grammar and punctuation, document formatting, and computer skills.

Advanced placement is available through testing in selected courses. A grade of "C" or higher is required in all technical courses.

## EXECUTIVE ASSISTANT TECHNOLOGY (EA)

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| MAT | 1121 | Business Mathematics 1 | 3 | 0 | 3 |
| OT | 3003 | Document Formatting 2 | 2 | 2 | 3 |
| OT | 3021 | Office Procedures 1 | 2 | 3 | 3 |
| OT | 3058 | Microsoft Word for Windows | 2 | 3 | 3 |
| OT | 3095 | Introduction to Computers, Windows, Internet | 2 | 3 | 3 |
| BT | 9200 | Professional Practices | 1 | 0 | 1 |
| | | | 15 | 11 | 19 |
| **SECOND TERM** | | | | | |
| OT | 9227 | Cooperative Education Office Technologies 1 | | 40 | 2 |
| **THIRD TERM** | | | | | |
| ENG | 10XX | English Elective | 3 | 0 | 3 |
| MAT | 1122 | Business Mathematics 2 | 3 | 0 | 3 |
| OT | 1863 | Electronic Spreadsheets (Excel) | 2 | 2 | 3 |
| OT | 3032 | Office Procedures 2 | 2 | 3 | 3 |
| OT | 3035 | Essential Business Correspondence | 2 | 3 | 3 |
| OT | 3069 | Advanced Microsoft Word | 2 | 3 | 3 |
| | | | 14 | 11 | 18 |
| **FOURTH TERM** | | | | | |
| OT | 9227 | Cooperative Education Office Technologies 1 | | 40 | 2 |
| **FIFTH TERM** | | | | | |
| MAT | 1123 | Business Mathematics 3 | 3 | 0 | 3 |
| ECO | 1512 | Microeconomics | 3 | 0 | 3 |
| BUS | 2925 | Business Principles | 3 | 0 | 3 |
| OT | 3022 | Machine Transcription and Proofreading | 2 | 3 | 3 |
| OT | 3036 | Project Management Applications | 2 | 3 | 3 |

| | | | | | |
|---|---|---|---|---|---|
| OT | 30XX | Technical Elective | 2 | 3 | 3 |
| | | | 15 | 9 | 18 |
| **SIXTH TERM** | | | | | |
| OT | 9227 | Cooperative Education Office Technologies 1 | | 40 | 2 |
| **SEVENTH TERM** | | | | | |
| ENG | 1018 | Professional Writing Styles 1 | 2 | 2 | 3 |
| PSY | 1505 | Introduction to Psychology 1 | 3 | 0 | 3 |
| MKT | 2903 | Introduction to Marketing | 3 | 0 | 3 |
| ACC | 2911 | Principles of Accounting 1 | 3 | 2 | 4 |
| OT | 3023 | Advanced Machine Transcription and Dictation | 2 | 3 | 3 |
| OT | 3024 | Office Procedures 3 | 2 | 2 | 3 |
| OT | 3068 | Database Management: Access | 2 | 3 | 3 |
| | | | 17 | 12 | 22 |
| **EIGHTH TERM** | | | | | |
| OT | 9227 | Cooperative Education Office Technologies 1 | | 40 | 2 |
| **NINTH TERM** | | | | | |
| SPE | 102X | Speech Elective | 3 | 0 | 3 |
| SOC | 1521 | Introduction to Sociology 1 | 3 | 0 | 3 |
| LAW | 1823 | Business Law 1 | 3 | 0 | 3 |
| ACC | 2912 | Principles of Accounting 2 | 4 | 0 | 4 |
| MGT | 2967 | Introduction to Management | 3 | 0 | 3 |
| OT | 3096 | Internet/Office Communications | 2 | 2 | 3 |
| OT | 30XX | Technical Elective | 2 | 3 | 3 |
| | | | 20 | 5 | 22 |
| **TENTH TERM** | | | | | |
| BUS | 9233 | Business Competencies | 2 | 0 | 2 |
| OT | 9247 | Cooperative Education Office Technologies 1 | | 20 | 1 |
| | | | 3 | 20 | 3 |
| | | | | | 110 |

Technical Elective: OT 3001, OT 3002, OT 3006, OT 3059, OT 3064, OT 3066, OT 3069, OT 3070, OT 3071, OT 3080, OT 3073, OT 3074, OT 3075
Speech Elective: SPE 1020, SPE 1022
English Elective: ENG 1002, ENG 1003, ENG 1010, ENG 1011

## OFFICE MANAGEMENT TECHNOLOGY (OM)

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| MAT | 1121 | Business Mathematics 1 | 3 | 0 | 3 |
| OT | 3003 | Document Formatting 2 | 2 | 2 | 3 |
| OT | 3021 | Office Procedures 1 | 2 | 3 | 3 |
| OT | 3058 | Microsoft Word for Windows | 2 | 3 | 3 |
| OT | 3095 | Introduction to Computers, Windows, Internet | 2 | 3 | 3 |
| BT | 9200 | Professional Practices | 1 | 0 | 1 |
| | | | 15 | 11 | 19 |
| **SECOND TERM** | | | | | |
| OT | 9227 | Cooperative Education Office Technologies 1 | | 40 | 2 |
| **THIRD TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| MAT | 1122 | Business Mathematics 2 | 3 | 0 | 3 |
| OT | 1863 | Electronic Spreadsheets (Excel) | 2 | 2 | 3 |
| BUS | 2925 | Business Principles | 3 | 0 | 3 |
| OT | 3032 | Office Procedures 2 | 2 | 3 | 3 |
| OT | 3035 | Essential Business Correspondence | 2 | 3 | 3 |
| | | | 15 | 8 | 18 |
| **FOURTH TERM** | | | | | |
| OT | 9227 | Cooperative Education Office Technologies 1 | | 40 | 2 |
| **FIFTH TERM** | | | | | |
| MAT | 1123 | Business Mathematics 3 | 3 | 0 | 3 |
| LAW | 1823 | Business Law 1 | 3 | 0 | 3 |
| ACC | 2911 | Principles of Accounting 1 | 3 | 2 | 4 |
| MGT | 2967 | Introduction to Management | 3 | 0 | 3 |
| OT | 3022 | Machine Transcription and Proofreading | 2 | 3 | 3 |
| OT | 3064 | Business Presentation Graphics | 2 | 3 | 3 |
| | | | 16 | 8 | 19 |
| **SIXTH TERM** | | | | | |
| OT | 9227 | Cooperative Education Office Technologies 1 | | 40 | 2 |
| **SEVENTH TERM** | | | | | |
| ENG | 10XX | English Elective | 3 | 0 | 3 |
| PSY | 1505 | Introduction to Psychology 1 | 3 | 0 | 3 |
| ACC | 2912 | Principles of Accounting 2 | 4 | 0 | 4 |
| OT | 3024 | Office Procedures 3 | 2 | 2 | 3 |
| OT | 3068 | Database Management: Access | 2 | 3 | 3 |
| OT | 3070 | Administrative Office Management 1 | 3 | 0 | 3 |
| | XXXX | Business Elective | 3 | 0 | 3 |
| | | | 20 | 5 | 22 |
| **EIGHTH TERM** | | | | | |
| OT | 9247 | Cooperative Education Office Technologies 1 | | 20 | 1 |
| **NINTH TERM** | | | | | |
| SPE | 102X | Speech Elective | 3 | 0 | 3 |
| ECO | 1512 | Microeconomics | 3 | 0 | 3 |
| SOC | 1521 | Introduction to Sociology 1 | 3 | 0 | 3 |
| MKT | 2903 | Introduction to Marketing | 3 | 0 | 3 |
| ACC | 2913 | Principles of Accounting 3 | 4 | 0 | 4 |
| OT | 3071 | Administrative Office Management 2 | 3 | 0 | 3 |
| | XXXX | Technical Elective | 2 | 3 | 3 |
| | | | 21 | 3 | 22 |
| **TENTH TERM** | | | | | |
| OT | 9247 | Cooperative Education Office Technologies 1 | | 20 | 1 |
| BUS | 9233 | Business Competencies | 2 | 0 | 2 |
| | | | 3 | 20 | 3 |
| | | | | | 110 |

Technical Elective: OT 1864, OT 3036, OT 3066, OT 3069, OT 3092, OT 3096, OT 3073, OT 3074, OT 3075
Speech Elective: SPE 1020, SPE 1022
English Elective: ENG 1003, ENG 1010, ENG 1011, ENG 1018
Business Elective: MGT 2970, BUS 2973

## OFFICE INFORMATION PROCESSING TECHNOLOGY (OIP)

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| MAT | 1121 | Business Mathematics 1 | 3 | 0 | 3 |
| OT | 300X | Keyboarding Elective | 2 | 3 | 3 |
| OT | 3021 | Office Procedures 1 | 2 | 3 | 3 |
| OT | 3058 | Microsoft Word for Windows | 2 | 3 | 3 |
| OT | 3062 | Database/Spreadsheet Applications | 2 | 3 | 3 |
| BT | 9200 | Professional Practices | 1 | 0 | 1 |
| | | | 15 | 12 | 19 |
| **SECOND TERM** | | | | | |
| OT | 9227 | Cooperative Education Office Technologies 1 | | 40 | 2 |
| **THIRD TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| MAT | 1122 | Business Mathematics 2 | 3 | 0 | 3 |
| OT | 3002 | Document Formatting 1 | 2 | 3 | 3 |
| OT | 3032 | Office Procedures 2 | 2 | 3 | 3 |
| OT | 3035 | Essential Business Correspondence | 2 | 3 | 3 |
| OT | 3069 | Advanced Microsoft Word | 2 | 3 | 3 |
| | | | 14 | 12 | 18 |
| **FOURTH TERM** | | | | | |
| OT | 9227 | Cooperative Education Office Technologies 1 | | 40 | 2 |
| **FIFTH TERM** | | | | | |
| MAT | 1123 | Business Mathematics 3 | 3 | 0 | 3 |
| BUS | 2925 | Business Principles | 3 | 0 | 3 |
| MGT | 2967 | Introduction to Management | 3 | 0 | 3 |
| OT | 3003 | Document Formatting 2 | 2 | 2 | 3 |
| OT | 3022 | Machine Transcription and Proofreading | 2 | 3 | 3 |
| OT | 3064 | Business Presentation Graphics | 2 | 3 | 3 |
| OT | 30XX | Technical Elective | 2 | 3 | 3 |
| | | | 17 | 11 | 21 |

| | | | | | |
|---|---|---|---|---|---|
| **SIXTH TERM** | | | | | |
| OT | 9227 | Cooperative Education Office Technologies 1 | | 40 | 2 |
| **SEVENTH TERM** | | | | | |
| ENG | 10XX | English Elective | 3 | 0 | 3 |
| PSY | 1505 | Introduction to Psychology 1 | 3 | 0 | 3 |
| MKT | 2903 | Introduction to Marketing | 3 | 0 | 3 |
| ACC | 2911 | Principles of Accounting 1 | 3 | 2 | 4 |
| OT | 3023 | Advanced Machine Transcription and Dictation | 2 | 3 | 3 |
| OT | 3092 | Desktop Publishing with Microsoft Publisher | 2 | 2 | 3 |
| OT | 30XX | Technical Elective | 2 | 3 | 3 |
| | | | 18 | 10 | 22 |
| **EIGHTH TERM** | | | | | |
| OT | 9227 | Cooperative Education Office Technologies 1 | | 40 | 2 |
| **NINTH TERM** | | | | | |
| SPE | 102X | Speech Elective | 3 | 0 | 3 |
| ECO | 1512 | Microeconomics | 3 | 0 | 3 |
| SOC | 1521 | Introduction to Sociology 1 | 3 | 0 | 3 |
| LAW | 1823 | Business Law 1 | 3 | 0 | 3 |
| OT | 3066 | Integrated Information Processing | 2 | 3 | 3 |
| OT | 30XX | Technical Elective | 3 | 0 | 3 |
| | | | 17 | 3 | 18 |
| **TENTH TERM** | | | | | |
| OT | 9227 | Cooperative Education Office Technologies 1 | | 40 | 2 |
| BUS | 9233 | Business Competencies | 2 | 0 | 2 |
| | | | 3 | 40 | 4 |
| | | | | | 110 |

Keyboarding Elective: OT 3001, OT 3006
Technical Elective: OT 3024, OT 3036, OT 3059, OT 3068, OT 3070, OT 3071, OT 3073, OT 3074, OT 3075, OT 3080, OT 3095, OT 3096
Speech Elective: SPE 1020, SPE 1022
English Elective: ENG 1003, ENG 1010, ENG 1011, ENG 1018

## OFFICE SUPPORT CERTIFICATE (OSCP)

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| OT | 3003 | Document Formatting 2 | 2 | 2 | 3 |
| OT | 3021 | Office Procedures 1 | 2 | 3 | 3 |
| | | | 4 | 5 | 6 |
| **SECOND TERM** | | | | | |
| OT | 3032 | Office Procedures 2 | 2 | 3 | 3 |
| OT | 3035 | Essential Business Correspondence | 2 | 3 | 3 |
| | | | 4 | 6 | 6 |
| **THIRD TERM** | | | | | |
| OT | 30XX | Word Processing Elective | 2 | 3 | 3 |
| OT | 30XX | Technical Elective | 2 | 3 | 3 |
| | | | 4 | 6 | 6 |
| **FOURTH TERM** | | | | | |
| OT | 3022 | Machine Transcription and Proofreading | 2 | 3 | 3 |
| OT | 3024 | Office Procedures 3 | 2 | 2 | 3 |
| | | | 4 | 5 | 6 |
| **FIFTH TERM** | | | | | |
| OT | 3062 | Database/Spreadsheet Applications | 2 | 3 | 3 |
| OT | 30XX | Technical Elective | 2 | 3 | 3 |
| | | | 4 | 6 | 6 |
| **SIXTH TERM** | | | | | |
| OT | 30XX | Technical Elective | 2 | 3 | 3 |
| OT | 30XX | Technical Elective | 2 | 3 | 3 |
| | | | 4 | 6 | 6 |
| | | | | | 36 |

If keyboarding skill is less than 30 wpm, OT 3001 and OT 3002 may be necessary as prerequisites to OT 3003.
Technical Elective: OT 3016, OT 3017, OT 3023, OT 3036, OT 3064, OT 3066, OT 3068, OT 3070, OT 3071, OT 3073, OT 3074, OT 3075, OT 3080, OT 3092, OT 3095, OT 3096
Word Processing Elective: OT 3058, OT 3059, OT 3069

## Purchasing Management Technology (PUR)

The Purchasing Management Technology program provides instruction in purchasing functions such as sourcing products and services, bidding, billing, materials management, and documentation. Graduates can expect to work as Purchasing Assistants, Retail Buyers, Expediters, and similar positions.

## PURCHASING MANAGEMENT TECHNOLOGY

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| MAT | 1121 | Business Mathematics 1 | 3 | 0 | 3 |
| OT | 1850 | Computerized Business Applications | 3 | 2 | 4 |
| ACC | 2911 | Principles of Accounting 1 | 3 | 2 | 4 |
| BUS | 2925 | Business Principles | 3 | 0 | 3 |
| BT | 9200 | Professional Practices | 1 | 0 | 1 |
| | | | 16 | 4 | 18 |
| **SECOND TERM** | | | | | |
| BUS | 9222 | Cooperative Education Business Management/ Marketing Management | 1 | 40 | 2 |
| **THIRD TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| MAT | 1122 | Business Mathematics 2 | 3 | 0 | 3 |
| PUR | 1817 | Purchasing | 3 | 0 | 3 |
| ACC | 2912 | Principles of Accounting 2 | 4 | 0 | 4 |
| PUR | 2937 | Fundamentals of Resource Planning | 4 | 0 | 4 |
| MGT | 2965 | Principles of Management 1 | 3 | 0 | 3 |
| | | | 20 | 0 | 20 |
| **FOURTH TERM** | | | | | |
| BUS | 9222 | Cooperative Education Business Management/ Marketing Management | 1 | 40 | 2 |
| **FIFTH TERM** | | | | | |
| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| MAT | 1123 | Business Mathematics 3 | 3 | 0 | 3 |
| PUR | 1818 | Advanced Purchasing | 3 | 0 | 3 |
| OT | 186X | Electronic Spreadsheets Elective | 2 | 2 | 3 |
| PUR | 2938 | Inventory and Production Control | 4 | 0 | 4 |
| MGT | 2966 | Principles of Management 2 | 3 | 0 | 3 |
| | | | 18 | 2 | 19 |
| **SIXTH TERM** | | | | | |
| BUS | 9222 | Cooperative Education Business Management/ Marketing Management | 1 | 40 | 2 |
| **SEVENTH TERM** | | | | | |
| SPE | 102X | Speech Elective | 3 | 0 | 3 |
| LAW | 1823 | Business Law 1 | 3 | 0 | 3 |
| MKT | 2903 | Introduction to Marketing | 3 | 0 | 3 |
| PUR | 2939 | Fundamentals of Manufacturing Control | 4 | 0 | 4 |
| | XXXX | Social Science Elective | 3 | 0 | 3 |
| | XXXX | Social Science Elective | 3 | 0 | 3 |
| | | | 19 | 0 | 19 |
| **EIGHTH TERM** | | | | | |
| BUS | 9222 | Cooperative Education Business Management/ Marketing Management | 1 | 40 | 2 |
| **NINTH TERM** | | | | | |
| ECO | 151X | Economics Elective | 3 | 0 | 3 |
| MKT | 1810 | Principles of Sales | 3 | 0 | 3 |
| PUR | 1877 | Supply Chain Management | 3 | 0 | 3 |
| PUR | 2940 | Operations Management | 4 | 0 | 4 |
| MGT | 2988 | Total Quality for Managers | 3 | 0 | 3 |
| MGT | 2989 | Customer Service Systems | 3 | 0 | 3 |
| BUS | 9233 | Business Competencies | 2 | 0 | 2 |
| | | | 21 | 0 | 21 |
| **TENTH TERM** | | | | | |
| BUS | 9222 | Cooperative Education Business Management/ Marketing Management | 1 | 40 | 2 |
| | | | | | 107 |

Economics Elective: ECO 1512, ECO 1513, ECO 1514
Social Science Elective: PSY 1502, PSY 1505, SOC 1521, SOC

1524, LBR 1535, PHI 1625
Speech Elective: SPE 1020, SPE 1022, SPE 1024
Electronic Spreadsheets Elective: OT 1861, OT 1863

## Property Management Technology (PM)

The Property Management Technology program involves site management of residential and commercial real estate. The curriculum includes all components of a property manager's responsibility as the representative of an owner, including: management of the physical site; on-site and off-site personnel; supervision of funds and accounts; leasing; and tenant services. In addition, the curriculum includes requirements for the Ohio Real Estate Sales License. Graduates are prepared to manage single and multi-family housing units, lease apartments and/or office space, sell residential and commercial properties, and provide home inspections. Students may combine this program with Real Estate for a double major. A cooperative education program is available for qualified students.

## PROPERTY MANAGEMENT TECHNOLOGY

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| MAT | 1121 | Business Mathematics 1 | 3 | 0 | 3 |
| OT | 1850 | Computerized Business Applications | 3 | 2 | 4 |
| BUS | 2925 | Business Principles | 3 | 0 | 3 |
| PM | 2931 | Introduction to Property Management | 3 | 0 | 3 |
| RE | 2951 | Real Estate Principles & Practices | 4 | 0 | 4 |
| BT | 9200 | Professional Practices | 1 | 0 | 1 |
| | | | 20 | 2 | 21 |
| **SECOND TERM** | | | | | |
| RE | 9229 | Cooperative Education Real Estate/ Property Mgt. | 1 | 40 | 2 |
| **THIRD TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| MAT | 1122 | Business Mathematics 2 | 3 | 0 | 3 |
| OT | 186X | Electronic Spreadsheets Elective | 2 | 2 | 3 |
| PM | 2932 | On-Site Residential Management | 3 | 0 | 3 |
| RE | 2953 | Real Estate Law | 4 | 0 | 4 |
| MGT | 2967 | Introduction to Management | 3 | 0 | 3 |
| | | | 18 | 2 | 19 |
| **FOURTH TERM** | | | | | |
| RE | 9229 | Cooperative Education Real Estate/ Property Mgt. | 1 | 40 | 2 |
| **FIFTH TERM** | | | | | |
| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| MAT | 1123 | Business Mathematics 3 | 3 | 0 | 3 |
| ACC | 2911 | Principles of Accounting 1 | 3 | 2 | 4 |
| PM | 2933 | Executive Level Property Management | 3 | 0 | 3 |
| RE | 2954 | Real Estate Finance and Appraisal | 4 | 0 | 4 |
| | XXXX | Social Science Elective | 3 | 0 | 3 |
| | | | 19 | 2 | 20 |
| **SIXTH TERM** | | | | | |
| RE | 9229 | Cooperative Education Real Estate/ Property Mgt. | 1 | 40 | 2 |
| **SEVENTH TERM** | | | | | |
| SPE | 102X | Speech Elective | 3 | 0 | 3 |
| ECO | 151X | Economics Elective | 3 | 0 | 3 |
| MKT | 2901 | Principles of Marketing 1 | 3 | 0 | 3 |
| ACC | 2912 | Principles of Accounting 2 | 4 | 0 | 4 |
| PM | 2936 | Institutional Property Management | 3 | 0 | 3 |
| MGT | 2989 | Customer Service Systems | 3 | 0 | 3 |
| | | | 19 | 0 | 19 |
| **EIGHTH TERM** | | | | | |
| RE | 9229 | Cooperative Education Real Estate/ Property Mgt. | 1 | 40 | 2 |
| **NINTH TERM** | | | | | |
| MKT | 2902 | Principles of Marketing 2 | 3 | 0 | 3 |
| PM | 2935 | Property Management Case Study | 3 | 0 | 3 |
| RE | 2956 | Real Estate Appraisal 2 - Income Producing Properties | 3 | 0 | 3 |
| BUS | 9233 | Business Competencies | 2 | 0 | 2 |
| | XXXX | Social Science Elective | 3 | 0 | 3 |
| | XXXX | Business Elective | 3 | 0 | 3 |
| | | | 17 | 0 | 17 |
| **TENTH TERM** | | | | | |
| RE | 9229 | Cooperative Education Real Estate/ Property Mgt. | 1 | 40 | 2 |
| | | | | | 106 |

Speech Elective: SPE 1020, SPE 1024, SPE 1022
Social Science Elective: PSY 1502, PSY 1505, SOC 1521, SOC 1524, LBR 1535, PHI 1625
Economics Elective: ECO 1512, ECO 1513, ECO 1514
Business Elective: MGT 1832, MGT 2971, MKT 1810, RE 2959, LAW 1823, BUS 2973
Electronic Spreadsheets Elective: OT 1861, OT 1863

## Real Estate Technology (RE)

The Real Estate Technology program provides an educational foundation that satisfies the requirements for licensing as well as future requirements for becoming a real estate broker. In addition, coursework for the Appraiser Certification is offered as an integral part of the curriculum.

Real Estate positions are available through local and national real estate firms, financial institutions, insurance companies and most major corporations. Many students combine this program with the Property Management curriculum to increase employment opportunities. Core courses are offered in the evening only. A cooperative education program is available for qualified students.

## REAL ESTATE TECHNOLOGY

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| MAT | 1121 | Business Mathematics 1 | 3 | 0 | 3 |
| OT | 1850 | Computerized Business Applications | 3 | 2 | 4 |
| RE | 2951 | Real Estate Principles & Practices | 4 | 0 | 4 |
| RE | 2953 | Real Estate Law | 4 | 0 | 4 |
| BT | 9200 | Professional Practices | 1 | 0 | 1 |
| | | | 18 | 2 | 19 |
| **SECOND TERM** | | | | | |
| RE | 9229 | Cooperative Education Real Estate/ Property Mgt. | 1 | 40 | 2 |
| **THIRD TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| SPE | 102X | Speech Elective | 3 | 0 | 3 |
| MAT | 1122 | Business Mathematics 2 | 3 | 0 | 3 |
| OT | 186X | Electronic Spreadsheets Elective | 2 | 2 | 3 |
| BUS | 2925 | Business Principles | 3 | 0 | 3 |
| RE | 2954 | Real Estate Finance and Appraisal | 4 | 0 | 4 |
| | | | 18 | 2 | 19 |
| **FOURTH TERM** | | | | | |
| RE | 9229 | Cooperative Education Real Estate/ Property Mgt. | 1 | 40 | 2 |
| **FIFTH TERM** | | | | | |
| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| MAT | 1123 | Business Mathematics 3 | 3 | 0 | 3 |
| MKT | 2901 | Principles of Marketing 1 | 3 | 0 | 3 |
| ACC | 2911 | Principles of Accounting 1 | 3 | 2 | 4 |
| MGT | 2967 | Introduction to Management | 3 | 0 | 3 |

| | | | | | |
|---|---|---|---|---|---|
| | XXXX | Social Science Elective | 3 | 0 | 3 |
| | | | 18 | 2 | 19 |
| **SIXTH TERM** | | | | | |
| RE | 9229 | Cooperative Education Real Estate/ Property Mgt. | 1 | 40 | 2 |
| **SEVENTH TERM** | | | | | |
| ECO | 151X | Economics Elective | 3 | 0 | 3 |
| FIN | 1804 | Risk & Insurance | 3 | 0 | 3 |
| MKT | 2902 | Principles of Marketing 2 | 3 | 0 | 3 |
| ACC | 2912 | Principles of Accounting 2 | 4 | 0 | 4 |
| RE | 2956 | Real Estate Appraisal 2 - Income Producing Properties | 3 | 0 | 3 |
| FIN | 2960 | Principles of Finance 1 | 3 | 0 | 3 |
| | | | 19 | 0 | 19 |
| **EIGHTH TERM** | | | | | |
| RE | 9229 | Cooperative Education Real Estate/ Property Mgt. | 1 | 40 | 2 |
| **NINTH TERM** | | | | | |
| MKT | 1810 | Principles of Sales | 3 | 0 | 3 |
| LAW | 1823 | Business Law 1 | 3 | 0 | 3 |
| RE | 2959 | Real Estate Appraisal 3 | 3 | 0 | 3 |
| MGT | 2989 | Customer Service Systems | 3 | 0 | 3 |
| BUS | 9233 | Business Competencies | 2 | 0 | 2 |
| | XXXX | Social Science Elective | 3 | 0 | 3 |
| | XXXX | Business Elective | 3 | 0 | 3 |
| | | | 20 | 0 | 20 |
| **TENTH TERM** | | | | | |
| RE | 9229 | Cooperative Education Real Estate/ Property Mgt. | 1 | 40 | 2 |
| | | | | | 106 |

Speech Elective: SPE 1020, SPE 1022, SPE 1024
Social Science Elective: PSY 1502, PSY 1505, SOC 1521, SOC 1524, LBR 1535, PHI 1625
Economics Elective: ECO 1512, ECO 1513, ECO 1514
Electronic Spreadsheets Elective: OT 1861, OT 1863
Business Elective: LAW 1824, BUS 2973, MKT 1810, MGT 1832, MGT 2971, PM 2931, PM 2932, PM 2933, PM 2935, PM 2936

# Engineering Technologies Division

The Engineering Technologies Division's mission is to serve students by promoting excellence in engineering technologies through professional instruction, cooperative education, and advisement. The division's success in meeting its objectives has been substantiated by numerous outside agencies. The Ohio Board of Regents awarded the Engineering Technologies Division three of its prestigious Program Excellence Awards, more than any other engineering or engineering technology division in Ohio. Seven of the division's academic programs are accredited by TAC/ABET, one by the Federal Aviation Administration. Over 1000 students have graduated from the division's associate degree programs in the last five years, a number matched by no other college in Ohio and only a handful of institutions in the country. All of these accomplishments bring credence to the divisional motto, *"Engineering Technologies - Where Excellence is More Than an Image."*

The division actively pursues its mission by offering students a wide range of learning opportunities, including two-year associate degree programs and one-year certificate programs. Efforts are ongoing to identify emerging technologies and to address industry's changing requirements for qualified employees.

## Associate Degree Programs

The Engineering Technologies Division currently offers 11 two-year associate degree programs, providing 17 areas of specialization. Each curriculum includes specialized technical work, basic theory and skill in mathematics and science, and foundation courses in communication skills, humanities and social sciences. Full-time students who follow the published sequence of courses can complete the associate degree programs in two years. Completing the associate degree programs on a part-time basis will require a longer time.

The division's associate degree programs are designed to provide graduates ready access to the job market and to allow ease of transfer to four-year baccalaureate degree programs. The close tie with industry created by the division's active cooperative education component insures that each program remains technically current. The division has actively pursued articulation agreements with area colleges and universities. Articulation agreements are currently in place with Miami University, the University of Cincinnati, Northern Kentucky University, the University of Findlay and Embry-Riddle Aeronautical University. Each of these agreements varies in content, and interested students should meet with their program chair as early as possible to review the details of each arrangement. A new articulation agreement with the University of Toledo allows graduates of the College's electronics programs to complete a Bachelor of Computer Science and engineering technology degree on Cincinnati State's campus.

## Certificate Programs

Certificate programs in the Engineering Technologies Division are designed to cover areas of special interest requiring less coverage than an associate degree program. These programs vary in length from a short selection of technical courses to a full one-year plan of studies, including accompanying math, science and communications courses. Some certificate programs are designed to mesh with existing associate degree programs, allowing students to apply earned credit toward obtaining a degree. Others stand on their own, intended to offer training in a specific area. In any case, all courses undergo the same rigorous approval process used to assure quality and relevance in the division's associate degree course offerings.

## Pre-Technology Admissions

In order to ensure a high degree of success in academic studies in engineering technology, entering students must be able to meet established academic levels in mathematics, communication skills and reading comprehension. To aid in determining these levels entering students are required to take the college admissions/placement test, COMPASS. If testing and previous academic background indicate that a student has not reached the necessary preparatory level, a divisional advisor will assist in preparing a program of classes to help the student reach those levels. Preparatory classes are available on a year-round basis to facilitate students in their efforts.

## Cooperative Education

The Engineering Technologies Division provides technology instruction that combines classroom and laboratory instruction with practical, hands-on experience in real work environments. This combination helps prepare graduates for immediate employment upon graduation and positions individuals for

advancement in technology and mid-management careers. The cooperative education experience is a cornerstone of the educational process in the Engineering Technologies Division.

All students enrolled in the division's associate degree programs are required to earn up to 10 credit hours in cooperative education. Most students will complete this requirement through on-site cooperative education assignments, but credit can be earned in one of three ways:

Alternate full-time terms in the classroom with full-time terms of cooperative education, typically over a 10-term period.

Attend classes on a half-day schedule, while simultaneously working part-time (or more) in cooperative education employment for a 10-term period.

Substitute appropriate academic courses or previous related work experience for cooperative education employment, but only with prior approval from the appropriate program co-op coordinator.

Students with prior related work experience may be permitted to fulfill a portion of the cooperative education requirement by submitting a petition to substitute that work experience for co-op credit.

For eligibility requirements, co-op registration policies, and other issues related to cooperative education, please refer to the "Cooperative Education Program" section of the catalog.

The Engineering Technologies Division's co-op coordinators will assist students in fulfilling their cooperative education requirements. Although the coordinators have a history of success in finding positions for students, they cannot guarantee placement. In those rare cases where a student cannot be placed the coordinator will work with the student on alternatives to meet the co-op education requirements.

## Transfer Module

The Transfer Module was developed by the Ohio Board of Regents to facilitate transfer of credits from one Ohio public college or university to another. The Transfer Module contains 54 to 60 quarter hours of course credits in the areas of English, mathematics, arts and humanities, social and behavioral sciences, natural and physical sciences, and interdisciplinary studies. A Transfer Module completed at one college or university will automatically meet the requirements for the Transfer Module at another college or university once the student is admitted. For additional information, see the "State of Ohio Policy for Institutional Transfer" and the "Transfer Module" sections of the college catalog.

Associate degree programs in the Engineering Technologies Division contain in their curricula most of the required courses for the Cincinnati State Transfer Module. Students desiring to complete the transfer module should schedule the additional courses at their convenience. Students who wish to transfer to an Ohio public university for baccalaureate degrees will find that the Cincinnati State Associate of Applied Science degree combined with a transfer module showing grades of "C" or better, will receive preferential consideration at the receiving institution. Additionally, the transfer process has been streamlined by articulation agreements established with a growing list of colleges and universities.

## Aviation Maintenance Technology (AMT)

Graduates of the Aviation Maintenance Technology program receive an Associate Degree in Applied Science and are eligible, under Air Agency Certificate Number A09T-004R, to test for the FAA Aviation Mechanic Certificate with Airframe and Powerplant ratings. The mechanic certificate entitles the holder to approve aircraft for flight after maintenance has been performed. All aviation courses, identified by course numbers beginning with 8, are conducted at the Cincinnati West Airport in Harrison, Ohio. Classroom study is devoted to learning every system of today's aircraft while mechanical skills are developed on the fleet of aircraft owned by Cincinnati State. Some non-core courses may be taken at the Cincinnati West Facility or the main campus. Primary employers of graduates include airlines and manufacturers of aircraft and engines. Note: Certification requirements are subject to current Federal Aviation Requirements and may change without notice.

## AVIATION MAINTENANCE TECHNOLOGY

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| MAT | 1191 | Algebra and Trigonometry 1 | 3 | 2 | 4 |
| PHY | 2221 | Technical Physics 1 | 2 | 3 | 3 |
| AVT | 8100 | Aircraft Orientation | 4 | 4 | 5 |
| AVT | 8101 | Materials & Processes 1 | 2 | 3 | 3 |
| AVT | 8102 | Aerodynamics & FAA Regulations | 3 | 2 | 3 |
| | | | 14 | 14 | 18 |
| **SECOND TERM** | | | | | |
| MAT | 11XX | Algebra Elective | 4 | 0 | 4 |
| PHY | 2222 | Technical Physics 2 | 2 | 3 | 3 |
| AVT | 8106 | Aircraft Drawings | 2 | 2 | 2 |
| AVT | 8107 | Materials & Processes 2 | 4 | 6 | 6 |
| AVT | 8108 | Aircraft Electricity | 3 | 2 | 3 |
| AVT | 8109 | Cleaning & Corrosion Control | 2 | 3 | 3 |
| | | | 17 | 16 | 21 |
| **THIRD TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| PHY | 2223 | Technical Physics 3 | 2 | 3 | 3 |
| AVT | 8130 | Airframe Structures 1 | 3 | 7 | 5 |
| AVT | 8132 | Aircraft Electrical & Generating Systems | 4 | 6 | 6 |
| AVT | 8143 | Airframe Hydraulic & Pneumatic Systems | 1 | 4 | 2 |
| | | | 13 | 20 | 19 |
| **FOURTH TERM** | | | | | |
| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| AVT | 8140 | Airframe Structures 2 | 3 | 7 | 5 |
| AVT | 8142 | Assembly & Rigging | 3 | 7 | 5 |
| AVT | 8151 | Landing Gear Systems | 3 | 7 | 5 |
| | | | 12 | 21 | 18 |
| **FIFTH TERM** | | | | | |
| ENG | 1015 | Technical Writing 2 | 3 | 0 | 3 |
| AVT | 8131 | Welding Processes | 1 | 4 | 2 |
| AVT | 8150 | Airframe Electronic and Instrument Systems | 4 | 6 | 6 |
| AVT | 8152 | Airframe Inspection | 1 | 4 | 2 |
| AVT | 8154 | Airframe Systems | 4 | 6 | 6 |
| | | | 13 | 20 | 19 |
| **SIXTH TERM** | | | | | |
| ECO | 15XX | Economics Elective | 3 | 0 | 3 |
| EET | 7035 | Computer Applications for Engineering Technology | 2 | 3 | 3 |
| AVT | 8172 | Ignition Systems | 4 | 6 | 6 |
| AVT | 8180 | Engine Systems & Inspection | 5 | 5 | 5 |
| | | | 14 | 14 | 17 |
| **SEVENTH TERM** | | | | | |
| SPE | 1022 | Professional Presentations | 2 | 2 | 3 |
| AVT | 8160 | Powerplant Theory & Maintenance 1 | 5 | 5 | 7 |
| AVT | 8162 | Propellers | 4 | 4 | 4 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 12 | 51 | 16 |

| | | | | | |
|---|---|---|---|---|---|
| **EIGHTH TERM** | | | | | |
| PSY | 1502 | Human Relations-Applied Psychology | 3 | 0 | 3 |
| AVT | 8170 | Powerplant Theory & Maintenance 2 | 5 | 5 | 7 |
| AVT | 8171 | Powerplant Fuel Metering Systems 1 | 5 | 5 | 5 |
| | | | 13 | 10 | 15 |
| **NINTH TERM** | | | | | |
| AVT | 8181 | Engine Inspection | 4 | 4 | 5 |
| AVT | 8183 | Powerplant Theory & Maintenance 3 | 5 | 5 | 7 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 10 | 49 | 14 |
| **TENTH TERM** | | | | | |
| PHI | 1625 | Ethics | 3 | 0 | 3 |
| AVT | 8161 | Powerplant Lubrication | 3 | 2 | 4 |
| AVT | 8182 | Engine Instruments & Fire Protection | 2 | 3 | 3 |
| | | | 8 | 5 | 10 |
| | | | | | 167 |

Economics Elective: ECO 1512, ECO 1513
Algebra Elective: MAT 1173, MAT 1192

## Avionics Certificate (AVONC)

Another program offering, the avionics certificate, is available The Avionics Certificate provides advanced skills in aviation electronics for students who are FAA certified aviation mechanics with airframe ratings. Graduates will be able to troubleshoot and repair in a flight line environment for auto pilot, instrument navigation and communication equipment and powerplant electronic control systems.

## AVIONICS CERTIFICATE

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| ENG | 1015 | Technical Writing 2 | 3 | 0 | 3 |
| MAT | 1191 | Algebra and Trigonometry 1 | 4 | 0 | 4 |
| MAT | 1192 | Algebra and Trigonometry 2 | 4 | 0 | 4 |
| PHY | 2221 | Technical Physics 1 | 2 | 3 | 3 |
| PHY | 2222 | Technical Physics 2 | 2 | 3 | 3 |
| PHY | 2223 | Technical Physics 3 | 2 | 3 | 3 |
| AVT | 8100 | Aircraft Orientation | 4 | 4 | 5 |
| AVT | 8101 | Materials & Processes 1 | 2 | 3 | 3 |
| AVT | 8102 | Aerodynamics & FAA Regulations | 3 | 2 | 3 |
| AVT | 8106 | Aircraft Drawings | 2 | 2 | 2 |
| AVT | 8107 | Materials & Processes 2 | 4 | 6 | 6 |
| AVT | 8108 | Aircraft Electricity | 3 | 2 | 3 |
| AVT | 8109 | Cleaning & Corrosion Control | 2 | 3 | 3 |
| AVT | 8132 | Aircraft Electrical & Generating Systems | 4 | 6 | 6 |
| AVT | 8150 | Airframe Electronic and Instrument Systems. | 4 | 6 | 6 |
| AVT | 8154 | Airframe Systems | 4 | 6 | 6 |
| AVT | 8182 | Engine Instruments & Fire Protection | 2 | 3 | 3 |
| AVT | 8200 | Avionics Orientation | 3 | 2 | 4 |
| AVT | 8201 | Avionics 1 | 3 | 2 | 4 |
| AVT | 8202 | Avionics 2 | 3 | 2 | 4 |
| | | | 66 | 58 | 84 |
| | | | | | 84 |

Prerequisites for Admission: Scores on the COMPASS Test (Admissions Test) must indicate the student is: a) Ready to begin Algebra 1 (MAT 1191); b) Ready to begin College English (ENG 1001); c) Capable of College Reading Level.

## Aviation Maintenance Certificate Programs

Included in the Aviation Maintenance degree program are two certificate programs (Air Agency Certificate No. A09T004R). After the successful completion of either or both of the airframe and powerplant requirements, Cincinnati State issues a certificate which, upon presentation to an FAA designated examiner, allows students to take the FAA written test that leads to licensing. Note: Certification requirements are subject to current Federal Aviation Requirements and may change without notice.

## AVIATION MECHANICS AIRFRAME CERTIFICATE (AVAC)

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| ENG | 1015 | Technical Writing 2 | 3 | 0 | 3 |
| MAT | 1191 | Algebra and Trigonometry 1 | 4 | 0 | 4 |
| MAT | 1192 | Algebra and Trigonometry 2 | 4 | 0 | 4 |
| PHY | 2221 | Technical Physics 1 | 2 | 3 | 3 |
| PHY | 2222 | Technical Physics 2 | 2 | 3 | 3 |
| PHY | 2223 | Technical Physics 3 | 2 | 3 | 3 |
| AVT | 8100 | Aircraft Orientation | 4 | 4 | 5 |
| AVT | 8101 | Materials & Processes 1 | 2 | 3 | 3 |
| AVT | 8102 | Aerodynamics & FAA Regulations | 3 | 2 | 3 |
| AVT | 8106 | Aircraft Drawings | 2 | 2 | 2 |
| AVT | 8107 | Materials & Processes 2 | 4 | 6 | 6 |
| AVT | 8108 | Aircraft Electricity | 3 | 2 | 3 |
| AVT | 8109 | Cleaning & Corrosion Control | 2 | 3 | 3 |
| AVT | 8130 | Airframe Structures 1 | 3 | 7 | 5 |
| AVT | 8131 | Welding Processes | 1 | 4 | 2 |
| AVT | 8132 | Aircraft Electrical & Generating Systems | 4 | 6 | 6 |
| AVT | 8140 | Airframe Structures 2 | 3 | 7 | 5 |
| AVT | 8142 | Assembly & Rigging | 3 | 7 | 5 |
| AVT | 8143 | Airframe Hydraulic & Pneumatic Systems | 1 | 4 | 2 |
| AVT | 8150 | Airframe Electronic and Instrument Systems. | 4 | 6 | 6 |
| AVT | 8151 | Landing Gear Systems | 3 | 7 | 5 |
| AVT | 8152 | Airframe Inspection | 1 | 4 | 2 |
| AVT | 8154 | Airframe Systems | 4 | 6 | 6 |
| AVT | 8155 | Airframe Comprehensive | 2 | 1 | 2 |
| | | | 72 | 90 | 97 |

## AVIATION MECHANICS POWERPLANT CERTIFICATE (AVPC)

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| ENG | 1015 | Technical Writing 2 | 3 | 0 | 3 |
| MAT | 1191 | Algebra and Trigonometry 1 | 4 | 0 | 4 |
| MAT | 1192 | Algebra and Trigonometry 2 | 4 | 0 | 4 |
| PHY | 2221 | Technical Physics 1 | 2 | 3 | 3 |
| PHY | 2222 | Technical Physics 2 | 2 | 3 | 3 |
| PHY | 2223 | Technical Physics 3 | 2 | 3 | 3 |
| AVT | 8100 | Aircraft Orientation | 4 | 4 | 5 |
| AVT | 8101 | Materials & Processes 1 | 2 | 3 | 3 |
| AVT | 8102 | Aerodynamics & FAA Regulations | 3 | 2 | 3 |
| AVT | 8106 | Aircraft Drawings | 2 | 2 | 2 |
| AVT | 8107 | Materials & Processes 2 | 4 | 6 | 6 |
| AVT | 8108 | Aircraft Electricity | 3 | 2 | 3 |
| AVT | 8109 | Cleaning & Corrosion Control | 2 | 3 | 3 |
| AVT | 8160 | Powerplant Theory & Maintenance 1 | 5 | 5 | 7 |
| AVT | 8161 | Powerplant Lubrication | 3 | 2 | 4 |
| AVT | 8162 | Propellers | 4 | 4 | 4 |
| AVT | 8170 | Powerplant Theory & Maintenance 2 | 5 | 5 | 7 |
| AVT | 8171 | Powerplant Fuel Metering Systems 1 | 5 | 5 | 5 |
| AVT | 8172 | Ignition Systems | 4 | 6 | 6 |
| AVT | 8180 | Engine Systems & Inspection | 5 | 5 | 5 |
| AVT | 8181 | Engine Inspection | 4 | 4 | 5 |
| AVT | 8182 | Engine Instruments & Fire Protection | 2 | 3 | 3 |
| AVT | 8183 | Powerplant Theory & Maintenance 3 | 5 | 5 | 7 |
| AVT | 8185 | Powerplant Comprehensive | 2 | 1 | 2 |
| | | | 87 | 76 | 106 |

## Aviation Pilot Certificate (AVTPL)

Students in this program may obtain a private pilot certificate, an instrument rating and a commercial pilot certificate. The program includes ground instruction at Cincinnati State and flight training through a flight school at a local airport. To qualify for admission into the Pilot Certificate program, applicants will be required to meet at least the physical requirements for a second class airman medical certificate.

## AVIATION PILOT CERTIFICATE

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| AVT | 8310 | Private Pilot Theory | 3 | 0 | 3 |
| AVT | 8311 | Private Pilot Flight Lab | 2 | 4 | 4 |
| AVT | 8320 | Instrument Pilot Theory | 3 | 0 | 3 |
| AVT | 8321 | Instrument Pilot Flight Lab | 2 | 4 | 4 |
| AVT | 8330 | Commercial Pilot Theory | 3 | 0 | 3 |
| AVT | 8331 | Commercial Pilot Flight Lab | 2 | 4 | 4 |
| | | | 15 | 12 | 21 |
| | | | | | 21 |

## Biomedical Equipment & Information Systems Technology (BMET)

The Biomedical Equipment and Information Systems Technology program is designed to fill a need for technicians with superior skills in electronics, computer networking, computer software and medical instrumentation.

This person is employed by hospitals, medical equipment companies and electronics firms. The positions range from Biomedical technicians to Information Systems technicians and Maintenance technicians.

The BMET graduate will have skills in the following areas:

- Installation, calibration and repair of biomedical equipment
- Preventative maintenance and inspection of equipment
- Operation of safety and maintenance programs

Students pursing a degree in BMET are required to hold on-site, related, paid cooperative education positions in order to meet graduation requirements. Exceptions to this policy will be permitted with the approval of the cooperative education coordinator and the program chair of the BMET program.

The Biomedical Equipment and Information Systems Technology program is accredited by TAC/ABET.

## BIOMEDICAL EQUIPMENT & INFORMATION SYSTEMS TECHNOLOGY

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| MAT | 1191 | Algebra and Trigonometry 1 | 3 | 2 | 4 |
| EET | 7710 | DC Circuit Analysis | 5 | 0 | 5 |
| EET | 7711 | DC Circuits Lab | 0 | 3 | 1 |
| CPET | 7728 | Digital Combinational Logic | 3 | 2 | 4 |
| BMT | 7739 | Introduction to Biomedical Information Systems and Technology | 2 | 3 | 3 |
| BT | 9200 | Professional Practices | 1 | 0 | 1 |
| | | | 14 | 10 | 18 |
| **SECOND TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 40 | 5 |
| **THIRD TERM** | | | | | |
| MAT | 1192 | Algebra and Trigonometry 2 | 4 | 0 | 4 |
| EET | 7716 | Computer Calculations for Electronics | 3 | 3 | 4 |
| EET | 7720 | AC Circuit Analysis | 5 | 0 | 5 |
| EET | 7721 | AC Circuits Lab | 0 | 3 | 1 |
| CPET | 7738 | Digital Sequential Logic | 3 | 3 | 4 |
| | | | 15 | 9 | 18 |
| **FOURTH TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 40 | 5 |
| **FIFTH TERM** | | | | | |
| CHE | 2231 | Fundamentals of General Chemistry | 3 | 3 | 4 |
| IT | 5151 | Network Communications 1 | 2 | 3 | 3 |
| EET | 7730 | Electronics 1 | 5 | 2 | 6 |
| CPET | 7748 | Microprocessor Systems 1 | 3 | 3 | 4 |
| | | | 13 | 11 | 17 |
| **SIXTH TERM** | | | | | |
| MAT | 1154 | Calculus 1 | 5 | 0 | 5 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 6 | 40 | 7 |
| **SEVENTH TERM** | | | | | |
| PHI | 1625 | Ethics | 3 | 0 | 3 |
| PHY | 2293 | Physics 3 (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| MCH | 4000 | Introduction to Medical Terminology | 1 | 2 | 2 |
| BIO | 4073 | Concepts of Biology 3 | 3 | 2 | 4 |
| EET | 7770 | Computer Repair: System Design and Interfacing | 4 | 3 | 5 |
| | | | 14 | 9 | 18 |
| **EIGHTH TERM** | | | | | |
| BMT | 7749 | Biomedical Instrumentation 1 | 3 | 3 | 4 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 43 | 6 |
| **NINTH TERM** | | | | | |
| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| SPE | 102X | Speech Elective | 3 | 0 | 3 |
| ECO | 1513 | Macroeconomics | 3 | 0 | 3 |
| EMT | 7758 | Motors & Controls | 3 | 2 | 4 |
| BMT | 7759 | Biomedical Instrumentation 2 | 3 | 3 | 4 |
| | | | 15 | 5 | 17 |
| **TENTH TERM** | | | | | |
| PSY | 1502 | Human Relations-Applied Psychology | 3 | 0 | 3 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 40 | 5 |
| | | | | | 116 |

Speech Elective: SPE 1020, SPE 1024

## Chemical Technology (CMT)

The Chemical Technology Program prepares students for employment in industry or government laboratories where research and analytical testing are performed on specific products and processes. A graduate will fulfill a variety of jobs ranging from the instrumental analysis of pharmaceuticals and other consumer products to the testing of properties of polymers and other materials.

Because the Chemical Technology curriculum has ample science requirements, including chemistry and physics, students who later express interest in earning the Bachelor of Science degree from a university have found the curriculum serves their transfer needs well. Students may also select electives from biology or biotechnology courses if they choose to pursue a career or further degree in that discipline.

## CHEMICAL TECHNOLOGY

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| MAT | 1191 | Algebra and Trigonometry 1 | 3 | 2 | 4 |
| CMT | 6611 | Chemistry 1 & Quantitative Analysis | 4 | 4 | 6 |
| CMT | 6619 | Computer Analysis of Laboratory Data | 3 | 0 | 3 |
| BT | 9200 | Professional Practices | 1 | 0 | 1 |
| | | | 14 | 6 | 17 |
| **SECOND TERM** | | | | | |
| MET | 7111 | Engineering Materials | 3 | 2 | 4 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 42 | 6 |
| **THIRD TERM** | | | | | |
| MAT | 1111 | Statistics 1 | 3 | 0 | 3 |
| MAT | 1173 | Algebra & Trigonometry 2 with Statistics | 4 | 0 | 4 |
| PHY | 2291 | Physics 1 (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| CMT | 6621 | Chemistry 2 & Quantitative Analysis | 4 | 4 | 6 |
| | | | 14 | 6 | 17 |
| **FOURTH TERM** | | | | | |
| CMT | 6630 | Chemical Process Technology | 3 | 0 | 3 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 40 | 5 |
| **FIFTH TERM** | | | | | |
| CHE | 2232 | Fundamentals of Organic Chemistry | 3 | 3 | 4 |
| PHY | 2292 | Physics 2 (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| CMT | 6631 | Chemistry 3 & Quantitative Analysis | 4 | 4 | 6 |
| | XXXX | Technical Elective | 2 | 2 | 3 |
| | | | 12 | 11 | 17 |
| **SIXTH TERM** | | | | | |
| PHY | 2293 | Physics 3 (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 42 | 6 |
| **SEVENTH TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| SPE | 1024 | Group Dynamics & Problem Solving | 3 | 0 | 3 |
| MAT | 1112 | Statistics 2 | 3 | 0 | 3 |
| CMT | 6641 | Instrumental Chemical Analysis 1 | 3 | 3 | 4 |
| | XXXX | Social Science Elective | 3 | 0 | 3 |
| | | | 15 | 3 | 16 |
| **EIGHTH TERM** | | | | | |
| CMT | 6651 | Instrumental Chemical Analysis 2 | 2 | 3 | 3 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 3 | 43 | 5 |
| **NINTH TERM** | | | | | |
| ENG | 101X | Technical Writing Elective | 3 | 0 | 3 |
| ECO | 1512 | Microeconomics | 3 | 0 | 3 |
| CMT | 6649 | Chemical Technology | 2 | 3 | 3 |
| | XXXX | Technical Elective | 2 | 2 | 3 |
| | XXXX | Social Science Elective | 3 | 0 | 3 |
| | XXXX | Technical Elective | 2 | 2 | 3 |
| | | | 15 | 7 | 18 |
| **TENTH TERM** | | | | | |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | | | 109 |

Technical Writing Elective: ENG 1010, ENG 1015, ENG 1017, ENG 1018, ENG 1019

Social Science Elective: Any PSY, SOC, HST, PHI, HUM

Technical Elective: MAT 1154, MAT 1155, MAT 1193, MAT 1194, MAT 1195, CHE 2233, BIO 4009, QCC 6271, QCC 6274, LOT 6710, LOT 6720, EVET 7607, EVET 7608, EVET 7612, EVET 7616, EVET 7646, EVET 7670, EVET 7671, EVET 7675, EVET 7676

## Civil Engineering Technology (CET)

Civil Engineering Technology is a single program from which a student may select one of three majors: architectural, construction management, or surveying. The CET program is also offered at night when students can earn their associate degrees in approximately three years while attending class only two nights per week. The Civil Engineering Technology program is accredited by TAC/ABET and has received an Ohio Board of Regents Program Excellence Award. Additionally, the Construction Management major is accredited by ACCE, making it the only program in the United States to hold both accreditations.

## Architectural Major (CETA)

Architectural students work closely with architects and engineers as architectural technicians. To prepare students for the current needs of the profession, the architectural technology curriculum features a heavy emphasis on mechanical systems, water, waste, electrical, lighting systems, and computer aided drafting. In addition, the program instructs students in the areas of construction methods and principles, architectural drafting and design, and structural design involved in building construction. Possible job titles for graduates include: CAD Technician Manager, Architectural Designer/Detailer, Mechanical Designer/Detailer, and Electrical Designer/Detailer.

## CIVIL ENGINEERING TECHNOLOGY - ARCHITECTURAL MAJOR

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| MAT | 1191 | Algebra and Trigonometry 1 | 3 | 2 | 4 |
| CET | 7024 | Architectural Drafting | 3 | 4 | 4 |
| CET | 7910 | Surveying Measurements | 3 | 2 | 4 |
| CET | 7913 | Introduction to Civil Engineering Technologies | 1 | 2 | 2 |
| CET | 7935 | Introduction to CAD (CET) | 2 | 3 | 3 |
| | | | 12 | 13 | 17 |
| **SECOND TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 40 | 5 |
| **THIRD TERM** | | | | | |
| MAT | 1173 | Algebra & Trigonometry 2 with Statistics | 4 | 0 | 4 |
| CET | 7025 | Surveying Drafting | 2 | 3 | 3 |
| CET | 7920 | Surveying Calculations | 2 | 3 | 3 |
| CET | 7927 | CAD 1 (CET) | 2 | 3 | 3 |
| CET | 7934 | Statics (CET) | 3 | 2 | 4 |
| | | | 13 | 11 | 17 |
| **FOURTH TERM** | | | | | |
| PHY | 2291 | Physics 1 (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 42 | 6 |
| **FIFTH TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| MAT | 1193 | Analytic Geometry & Calculus 1 | 4 | 0 | 4 |
| CET | 7026 | Architectural Design | 2 | 3 | 3 |
| CET | 7944 | Strength of Materials (CET) | 3 | 2 | 4 |

| | | | | | |
|---|---|---|---|---|---|
| | XXXX | Humanities/Social Science Elective | 3 | 0 | 3 |
| | | | 15 | 5 | 17 |
| **SIXTH TERM** | | | | | |
| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| SPE | 1022 | Professional Presentations | 2 | 2 | 3 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 6 | 42 | 8 |
| **SEVENTH TERM** | | | | | |
| PHY | 2292 | Physics 2 (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| CET | 7928 | CAD 2 (CET) | 1 | 6 | 3 |
| CET | 7956 | Structural Steel Design | 3 | 2 | 4 |
| CET | 7964 | Mechanical Systems | 2 | 3 | 3 |
| CET | 7968 | Lighting Systems | 2 | 3 | 3 |
| | | | 11 | 16 | 17 |
| **EIGHTH TERM** | | | | | |
| CULT | 1645 | Technology and Culture | 3 | 0 | 3 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 40 | 5 |
| **NINTH TERM** | | | | | |
| ECO | 1513 | Macroeconomics | 3 | 0 | 3 |
| CET | 7936 | HVAC Design Systems | 3 | 2 | 4 |
| CET | 7954 | Reinforced Concrete Design | 3 | 2 | 4 |
| CET | 7963 | Electrical Design Systems | 3 | 2 | 4 |
| CET | 7969 | Building Systems Design | 3 | 5 | 5 |
| | | | 15 | 11 | 20 |
| **TENTH TERM** | | | | | |
| PHY | 2293 | Physics 3 (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 42 | 6 |
| | | | | | 118 |

Humanities/Social Science Elective: Any PSY, SOC, ECO, GEO, LBR, HST, PHI, HUM

## Construction Management Major (CETC)

Early in the curriculum, students learn about materials and methods of construction, manual and computer aided architectural drafting, survey drafting, elements of structures, and light construction principles. They learn structural fundamentals through the four-course sequence of statics, strength of materials, structural steel design and reinforced concrete. Later, they investigate principles of construction management such as project control, scheduling, estimating, project safety, contracting, heavy construction, value engineering and labor relations. In most courses students use leading industry architectural, scheduling, and estimating software. Graduates may be employed as Project Estimators, Project Schedulers, Assistant Project Managers, Construction Layout Specialists, or Senior Civil Technicians.

## CIVIL ENGINEERING TECHNOLOGY - CONSTRUCTION MANAGEMENT MAJOR

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| MAT | 1191 | Algebra and Trigonometry 1 | 3 | 2 | 4 |
| CET | 7024 | Architectural Drafting | 3 | 4 | 4 |
| CET | 7910 | Surveying Measurements | 3 | 2 | 4 |
| CET | 7913 | Introduction to Civil Engineering Technologies | 1 | 2 | 2 |
| CET | 7935 | Introduction to CAD (CET) | 2 | 3 | 3 |
| | | | 12 | 13 | 17 |
| **SECOND TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 40 | 5 |
| **THIRD TERM** | | | | | |
| MAT | 1173 | Algebra & Trigonometry 2 with Statistics | 4 | 0 | 4 |
| CET | 7025 | Surveying Drafting | 2 | 3 | 3 |
| CET | 7920 | Surveying Calculations | 2 | 3 | 3 |
| CET | 7927 | CAD 1 (CET) | 2 | 3 | 3 |
| CET | 7934 | Statics (CET) | 3 | 2 | 4 |
| | | | 13 | 11 | 17 |
| **FOURTH TERM** | | | | | |
| PHY | 2291 | Physics 1 (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 42 | 6 |
| **FIFTH TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| MAT | 1193 | Analytic Geometry & Calculus 1 | 4 | 0 | 4 |
| LBR | 1535 | Introduction to Labor/ Management Relations | 3 | 0 | 3 |
| CET | 7931 | Light Construction | 3 | 2 | 4 |
| CET | 7944 | Strength of Materials (CET) | 3 | 2 | 4 |
| | | | 16 | 4 | 18 |
| **SIXTH TERM** | | | | | |
| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| SPE | 1022 | Professional Presentations | 2 | 2 | 3 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 6 | 42 | 8 |
| **SEVENTH TERM** | | | | | |
| PHY | 2292 | Physics 2 (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| CET | 7941 | Computer Integrated Construction (CIC) | 1 | 5 | 3 |
| CET | 7942 | Construction Management 1 | 2 | 3 | 3 |
| CET | 7943 | Construction Estimating | 2 | 3 | 3 |
| CET | 7956 | Structural Steel Design | 3 | 2 | 4 |
| | | | 11 | 15 | 17 |
| **EIGHTH TERM** | | | | | |
| ECO | 1512 | Microeconomics | 3 | 0 | 3 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 40 | 5 |
| **NINTH TERM** | | | | | |
| ECO | 1513 | Macroeconomics | 3 | 0 | 3 |
| CET | 7951 | Heavy Construction | 3 | 2 | 4 |
| CET | 7953 | Construction Management 2 | 2 | 4 | 4 |
| CET | 7954 | Reinforced Concrete Design | 3 | 2 | 4 |
| CET | 7955 | Applied Soil Mechanics | 3 | 2 | 4 |
| | | | 14 | 10 | 19 |
| **TENTH TERM** | | | | | |
| PHY | 2293 | Physics 3 (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 42 | 6 |
| | | | | | 118 |

## Construction Materials Testing Certificate (CETMT)

This certificate is intended for pre-technology students interested in the Civil Engineering Technology field. Students gain a fundamental knowledge of construction material properties, including the ability to perform fundamental testing procedures on concrete and soil for quality control of a constructed project. Full-time certificate students may participate in the coop-

erative education component thereby gaining on-the job experience to supplement their academic achievements. Students who earn this certificate may be employed as Asphalt Testing Technicians, Concrete Testing Technicians or Quality Control Technicians.

Upon completion of the certificate, students are well positioned to continue their education by entering the Civil Engineering Technology (CET) program. Many courses completed in the certificate are in the CET curriculum thereby providing a seamless pathway for the student to earn an associate of applied science degree.

## CONSTRUCTION MATERIALS TESTING CERTIFICATE

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| MAT | 1161 | Applied Algebra | 3 | 2 | 4 |
| | 15XX | Social Science Elective | 3 | 0 | 3 |
| CET | 7901 | CET Measurement Skills | 1 | 2 | 2 |
| CET | 7913 | Introduction to Civil Engineering Technologies | 3 | 0 | 3 |
| | | | 10 | 4 | 12 |
| **SECOND TERM** | | | | | |
| MAT | 1162 | Applied Geometry & Trigonometry | 3 | 2 | 4 |
| ECO | 1513 | Macroeconomics | 3 | 0 | 3 |
| CET | 7024 | Architectural Drafting | 3 | 4 | 4 |
| CET | 7916 | Construction Materials | 3 | 0 | 3 |
| | | | 12 | 6 | 14 |
| **THIRD TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| MAT | 1171 | Technical Mathematics 1 | 4 | 0 | 4 |
| CET | 7917 | Properties of Concrete | 2 | 2 | 3 |
| CET | 7918 | Properties of Soil | 2 | 2 | 3 |
| | | | 11 | 4 | 13 |
| **FOURTH TERM** | | | | | |
| SPE | 102X | Speech Elective | 3 | 0 | 3 |
| CET | 7935 | Introduction to CAD (CET) | 2 | 3 | 3 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 6 | 43 | 8 |
| **FIFTH TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| MAT | 1172 | Technical Mathematics 2 | 4 | 0 | 4 |
| PHY | 2270 | Introduction to Physics | 2 | 3 | 3 |
| CET | 7931 | Light Construction | 3 | 2 | 4 |
| | | | 12 | 5 | 14 |
| | | | | | 61 |

Social Science Elective: Any PSY, SOC, ECO, HST, GEO, LBR
Speech Elective: SPE 1020 or SPE 1022

## Surveying Major (CETS)

In the Surveying program, students train using state-of-the-art electronic surveying and computing equipment to learn instrument usage, computer graphics, document research and resolution, route design, control surveying, subdivision planning, satellite positioning (GPS), and geographic information systems (GIS). Professional surveyors are called upon to perform diverse tasks such as designing subdivisions, retracing original boundary lines, laying out construction projects, preparing legal descriptions, and orienting communications systems. Possible job titles for graduates include: Survey Crew chief, Computer Mapping Technician, Construction Layout Specialist, and GIS-GPS Technician.

## CIVIL ENGINEERING TECHNOLOGY - SURVEYING MAJOR

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| MAT | 1191 | Algebra and Trigonometry 1 | 3 | 2 | 4 |
| CET | 7024 | Architectural Drafting | 3 | 4 | 4 |
| CET | 7910 | Surveying Measurements | 3 | 2 | 4 |
| CET | 7913 | Introduction to Civil Engineering Technologies | 1 | 2 | 2 |
| CET | 7935 | Introduction to CAD (CET) | 2 | 3 | 3 |
| | | | 12 | 13 | 17 |
| **SECOND TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 40 | 5 |
| **THIRD TERM** | | | | | |
| MAT | 1173 | Algebra & Trigonometry 2 with Statistics | 4 | 0 | 4 |
| CET | 7025 | Surveying Drafting | 2 | 3 | 3 |
| CET | 7920 | Surveying Calculations | 2 | 3 | 3 |
| CET | 7927 | CAD 1 (CET) | 2 | 3 | 3 |
| CET | 7934 | Statics (CET) | 3 | 2 | 4 |
| | | | 13 | 11 | 17 |
| **FOURTH TERM** | | | | | |
| PHY | 2291 | Physics 1 (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 42 | 6 |
| **FIFTH TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| MAT | 1193 | Analytic Geometry & Calculus 1 | 4 | 0 | 4 |
| CET | 7930 | Route Surveying | 4 | 2 | 5 |
| CET | 7944 | Strength of Materials (CET) | 3 | 2 | 4 |
| | XXXX | Humanities/Social Science Elective | 3 | 0 | 3 |
| | | | 17 | 4 | 19 |
| **SIXTH TERM** | | | | | |
| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| SPE | 1022 | Professional Presentations | 2 | 2 | 3 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 6 | 42 | 8 |
| **SEVENTH TERM** | | | | | |
| PHY | 2292 | Physics 2 (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| CET | 7940 | Elements of Land Surveying | 3 | 3 | 4 |
| CET | 7947 | Drainage Control Systems | 3 | 2 | 4 |
| CET | 7948 | Subdivision Design 1 | 2 | 3 | 3 |
| CET | 7949 | Introduction to Geographic Information Systems | 3 | 2 | 4 |
| | | | 14 | 12 | 19 |
| **EIGHTH TERM** | | | | | |
| CULT | 1645 | Technology and Culture | 3 | 0 | 3 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 40 | 5 |
| **NINTH TERM** | | | | | |
| ECO | 1513 | Macroeconomics | 3 | 0 | 3 |
| CET | 7950 | Surveying Field Project | 1 | 6 | 3 |
| CET | 7955 | Applied Soil Mechanics | 3 | 2 | 4 |
| CET | 7958 | GIS/GPS Control Surveying | 1 | 6 | 3 |
| CET | 7959 | Subdivision Design 2 | 2 | 3 | 3 |
| | | | 10 | 17 | 16 |

| | | | | | |
|---|---|---|---|---|---|
| **TENTH TERM** | | | | | |
| PHY | 2293 | Physics 3 (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 42 | 6 |
| | | | | | 118 |

Humanities/Social Science Elective: Any PSY, SOC, ECO, GEO, LBR, HST, PHI, HUM

## Land Surveying Certificate (LSC)

This certificate is designed for graduates and students of four-year civil engineering programs who wish to qualify for the examinations to obtain registration as a Professional Surveyor in the State of Ohio. The Ohio State Board of Registration for Professional Engineering and Surveyors requires graduates from an approved four-year civil engineering program to successfully complete 24 quarter hours in surveying and mapping arts and sciences to become eligible for registration. The LSC certificate satisfies this requirement and is approved by the Ohio State Board of Registration for Professional Engineers and Surveyors. Students who enroll in the Land Surveying certificate must be a graduate of a four-year civil engineering program or currently be a student in such a program.

## LAND SURVEYING CERTIFICATE

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| RE | 2953 | Real Estate Law | 3 | 0 | 3 |
| CET | 7920 | Surveying Calculations | 2 | 3 | 3 |
| CET | 7930 | Route Surveying | 4 | 2 | 5 |
| CET | 7940 | Elements of Land Surveying | 3 | 3 | 4 |
| CET | 7948 | Subdivision Design 1 | 2 | 3 | 3 |
| CET | 7950 | Surveying Field Project | 1 | 6 | 3 |
| CET | 7958 | GIS/GPS Control Surveying | 1 | 6 | 3 |
| | | | 16 | 23 | 24 |
| | | | | | 24 |

## Electro-Mechanical Engineering Technology (EMET)

The Electro-Mechanical Engineering Technology program is a combination of the study of mechanical systems used in industry and the electronic systems used to control them. The curriculum includes theory and applications of analog and digital electronics and devices, electric motors and controls, computer control applications/programming, industrial hydraulic and pneumatic systems, mechanisms and machine drives, programmable logic controllers, servomechanisms, industrial control systems, and robotics.

Electro-Mechanical systems technicians test, install, maintain, troubleshoot, repair, modify, and operate automated systems such as industrial robots, computer controlled machines, and other machine and process systems used in industry. Graduates are equipped to enter diverse positions such as Robotics/Automation Technician, Field Service Technician, Maintenance Technician, Process Control/Instrumentation Technician, and similar fields.

The Electro-Mechanical Engineering Technology program is accredited by TAC/ABET and has received an Ohio Board of Regents Program Excellence Award.

## ELECTRO-MECHANICAL ENGINEERING TECHNOLOGY

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| MAT | 1191 | Algebra and Trigonometry 1 | 3 | 2 | 4 |
| EMT | 7142 | Industrial Mechanics | 3 | 3 | 4 |
| EET | 7710 | DC Circuit Analysis | 5 | 0 | 5 |
| EET | 7711 | DC Circuits Lab | 0 | 3 | 1 |
| BT | 9200 | Professional Practices | 1 | 0 | 1 |
| | | | 15 | 8 | 18 |
| **SECOND TERM** | | | | | |
| PHY | 2291 | Physics 1 (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 42 | 6 |
| **THIRD TERM** | | | | | |
| MAT | 1192 | Algebra and Trigonometry 2 | 4 | 0 | 4 |
| EET | 7720 | AC Circuit Analysis | 5 | 0 | 5 |
| EET | 7721 | AC Circuits Lab | 0 | 3 | 1 |
| EMT | 7731 | Industrial Control Electronics 1 | 5 | 3 | 6 |
| | | | 14 | 6 | 16 |
| **FOURTH TERM** | | | | | |
| MET | 7XXX | AutoCAD Elective | 2 | 3 | 3 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 3 | 43 | 5 |
| **FIFTH TERM** | | | | | |
| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| PHY | 2292 | Physics 2 (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| EMT | 7732 | Industrial Control Electronics 2 | 5 | 3 | 6 |
| EMT | 7758 | Motors & Controls | 3 | 2 | 4 |
| | | | 14 | 7 | 17 |
| **SIXTH TERM** | | | | | |
| MAT | 1193 | Analytic Geometry & Calculus 1 | 4 | 0 | 4 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 5 | 40 | 6 |
| **SEVENTH TERM** | | | | | |
| ENG | 1015 | Technical Writing 2 | 3 | 0 | 3 |
| SPE | 1022 | Professional Presentations | 2 | 2 | 3 |
| EMT | 7036 | Technical Computer Programming | 3 | 2 | 4 |
| MET | 7135 | Fluid Power Systems | 3 | 3 | 4 |
| EMT | 7146 | Electro-Mechanical Controls 1 (Programmable Controllers-PLCs) | 3 | 3 | 4 |
| | | | 14 | 10 | 18 |
| **EIGHTH TERM** | | | | | |
| PHY | 2293 | Physics 3 (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 42 | 6 |
| **NINTH TERM** | | | | | |
| PSY | 1502 | Human Relations-Applied Psychology | 3 | 0 | 3 |
| ECO | 1513 | Macroeconomics | 3 | 0 | 3 |
| EMT | 7156 | Electro-Mechanical Project | 2 | 4 | 4 |
| EMT | 7157 | Electro-Mechanical Controls 2 (Servomechanisms) | 3 | 3 | 4 |
| EMT | 7167 | Robotics 1 | 3 | 2 | 4 |
| | | | 14 | 9 | 18 |
| **TENTH TERM** | | | | | |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| XXXX | | Humanities/Social Science Elective | 3 | 0 | 3 |
| | | | 4 | 40 | 5 |
| | | | | | 115 |

AutoCAD Elective: MET 7027 or MET 7110 Humanities/Social Science Elective: Any PSY, SOC, ECO, HST, GEO, LBR

## ELECTRO-MECHANICAL ENGINEERING TECHNOLOGY - PROCESS CONTROL MAJOR

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| MAT | 1191 | Algebra and Trigonometry 1 | 3 | 2 | 4 |
| EMT | 7181 | Process Instrumentation 1 | 3 | 2 | 4 |
| EET | 7710 | DC Circuit Analysis | 5 | 0 | 5 |
| EET | 7711 | DC Circuits Lab | 0 | 3 | 1 |
| BT | 9200 | Professional Practices | 1 | 0 | 1 |
| | | | 15 | 7 | 18 |
| **SECOND TERM** | | | | | |
| PHY | 2291 | Physics 1 (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 42 | 6 |
| **THIRD TERM** | | | | | |
| MAT | 1192 | Algebra and Trigonometry 2 | 4 | 0 | 4 |
| EET | 7720 | AC Circuit Analysis | 5 | 0 | 5 |
| EET | 7721 | AC Circuits Lab | 0 | 3 | 1 |
| EMT | 7731 | Industrial Control Electronics 1 | 5 | 3 | 6 |
| | | | 14 | 6 | 16 |
| **FOURTH TERM** | | | | | |
| | 7XXX | AutoCAD Elective | 3 | 2 | 4 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 42 | 6 |
| **FIFTH TERM** | | | | | |
| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| PHY | 2292 | Physics 2 (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| EMT | 7732 | Industrial Control Electronics 2 | 5 | 3 | 6 |
| EMT | 7758 | Motors & Controls | 3 | 2 | 4 |
| | | | 14 | 7 | 17 |
| **SIXTH TERM** | | | | | |
| MAT | 1193 | Analytic Geometry & Calculus 1 | 4 | 0 | 4 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 5 | 40 | 6 |
| **SEVENTH TERM** | | | | | |
| ENG | 1015 | Technical Writing 2 | 3 | 0 | 3 |
| SPE | 1022 | Professional Presentations | 2 | 2 | 3 |
| EMT | 7036 | Technical Computer Programming | 3 | 2 | 4 |
| EMT | 7182 | Process Instrumentation 2 | 3 | 2 | 4 |
| EMT | 7183 | Process Instrumentation 3 | 3 | 2 | 4 |
| | | | 14 | 8 | 18 |
| **EIGHTH TERM** | | | | | |
| PHY | 2293 | Physics 3 (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 42 | 6 |
| **NINTH TERM** | | | | | |
| PSY | 1502 | Human Relations-Applied Psychology | 3 | 0 | 3 |
| ECO | 1513 | Macroeconomics | 3 | 0 | 3 |
| EMT | 7156 | Electro-Mechanical Project | 2 | 4 | 4 |
| EMT | 7184 | Process Instrumentation 4 | 3 | 2 | 4 |
| EMT | 7185 | Process Instrumentation 5 | 3 | 2 | 4 |
| | | | 14 | 8 | 18 |
| **TENTH TERM** | | | | | |
| | 1XXX | Humanities/Social Science Elective | 3 | 0 | 3 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 40 | 5 |
| | | | | | 116 |

AutoCAD Elective: MET 7027 or MET 7110
Humanities/Social Science Elective: Any PSY, SOC, ECO, HST, GEO, LBR

## Process Control and Instrumentation Certificate (PCIC)

The Process Control and Instrumentation Certificate (PCIC) program is a one-year certificate program consisting of five courses that prepare students for careers in the process control industry. The program is intended for people who are either already working in the process industry, have prior background, or have at least an Associate degree.

Students learn the calibration, installation, maintenance, setup, tuning and design of systems that control flow, pressure, temperature, level and analytical processes. The program incorporates state of the art equipment and uses a large pilot plant with a 4000 gallon pumping capacity, 480V, 3 phase variable speed drives, various types of automatic control valves, transmitters, pumps, and 900 feet of piping. Due to the balance of theory and hands-on work, this program appeals to both technicians and engineers. Students who earn this certificate may consider the following jobs:

The PCIC program is a preparatory program for the Instrument Society of America (ISA) Certified Control Systems Technician (CCST) exam.

## PROCESS CONTROL / INSTRUMENTATION CERTIFICATE

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| EMT | 7181 | Process Instrumentation 1 | 3 | 2 | 4 |
| EMT | 7182 | Process Instrumentation 2 | 3 | 2 | 4 |
| EMT | 7183 | Process Instrumentation 3 | 3 | 2 | 4 |
| EMT | 7184 | Process Instrumentation 4 | 3 | 2 | 4 |
| EMT | 7185 | Process Instrumentation 5 | 3 | 2 | 4 |
| | | | 15 | 10 | 20 |
| | | | | | 20 |

## Electronics Engineering Technology (EET)

Electronics Engineering Technology includes studies in both analog and digital electronics as well as computer system hardware and software design and testing. Coursework covers the theory and application of electronic systems and computer systems including time spent in labs fully equipped for electronic or computer design and applications.

Graduates assume positions such as Applications Technician, Computer Hardware Technician, Software Specialist, Service Technician, Engineering Technician, Communications Technician, Avionics Technician, or Field Service Technician. Graduates of the EET program also fill traditional Electronics Technician positions. With some additional study, graduates may also become certified as Computer Technicians, Electronics Technicians, and Network Technicians.

The Electronics Engineering Technology program is accredited by TAC/ABET.

## ELECTRONICS ENGINEERING TECHNOLOGY

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| MAT | 1191 | Algebra and Trigonometry 1 | 3 | 2 | 4 |
| EET | 7710 | DC Circuit Analysis | 5 | 0 | 5 |
| EET | 7711 | DC Circuits Lab | 0 | 3 | 1 |
| CPET | 7728 | Digital Combinational Logic | 3 | 2 | 4 |
| BT | 9200 | Professional Practices | 1 | 0 | 1 |
| | | | 15 | 7 | 18 |

| | | | | | |
|---|---|---|---|---|---|
| **SECOND TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 40 | 5 |
| **THIRD TERM** | | | | | |
| MAT | 1192 | Algebra and Trigonometry 2 | 4 | 0 | 4 |
| EET | 7716 | Computer Calculations for Electronics | 3 | 3 | 4 |
| EET | 7720 | AC Circuit Analysis | 5 | 0 | 5 |
| EET | 7721 | AC Circuits Lab | 0 | 3 | 1 |
| CPET | 7738 | Digital Sequential Logic | 3 | 3 | 4 |
| | | | 15 | 9 | 18 |
| **FOURTH TERM** | | | | | |
| PHY | 2291 | Physics 1 (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 42 | 6 |
| **FIFTH TERM** | | | | | |
| MAT | 1154 | Calculus 1 | 5 | 0 | 5 |
| PHY | 2292 | Physics 2 (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| EET | 7730 | Electronics 1 | 5 | 2 | 6 |
| CPET | 7748 | Microprocessor Systems 1 | 3 | 3 | 4 |
| | | | 16 | 7 | 19 |
| **SIXTH TERM** | | | | | |
| PHY | 2293 | Physics 3 (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 42 | 6 |
| **SEVENTH TERM** | | | | | |
| EET | 7740 | Electronics 2 | 5 | 2 | 6 |
| CPET | 7747 | Computer Instrumentation | 4 | 2 | 5 |
| EET | 7780 | Computer Repair: General Systems | 2 | 3 | 3 |
| | XXXX | Social Science Elective | 3 | 0 | 3 |
| | | | 14 | 7 | 17 |
| **EIGHTH TERM** | | | | | |
| SPE | 102X | Speech Elective | 3 | 0 | 3 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 40 | 5 |
| **NINTH TERM** | | | | | |
| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| PSY | 1505 | Introduction to Psychology 1 | 3 | 0 | 3 |
| EET | 7766 | Computer Control Systems | 3 | 2 | 4 |
| EET | 7770 | Computer Repair: System Design and Interfacing | 4 | 3 | 5 |
| | 77XX | Technical Elective | 3 | 2 | 4 |
| | | | 16 | 7 | 19 |
| **TENTH TERM** | | | | | |
| ECO | 1513 | Macroeconomics | 3 | 0 | 3 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 40 | 5 |
| | | | | | 118 |

Speech Elective: SPE 1020, SPE 1024
Social Science Elective: Any PSY, SOC, ECO, GEO, LBR, HST, PHI, HUM (Except PSY 1502 and ECO 1513)
Technical Elective: EET 7727, EET 7743, EET 7772, EET 7773, EET 7774, BMT 7739, CPET 7757

## Computer Repair Certificate (CPTR)

This certificate prepares students for employment as entry-level Computer Repair Technicians. The certificate is a valuable add-on for students with Associate degrees in computer-related majors to increase understanding of computer hardware, electronics, wiring and power distribution systems. The certificate may also be used as a first step toward an Associate degree and satisfies course requirements in the Computer Communications and the Personal Computer Support and Administration degree majors.

## COMPUTER REPAIR CERTIFICATE

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| MAT | 1161 | Applied Algebra | 3 | 2 | 4 |
| MAT | 1162 | Applied Geometry & Trigonometry | 3 | 2 | 4 |
| IT | 5231 | Operating Systems: DOS/Windows 1 | 2 | 3 | 3 |
| IT | 5232 | Operating Systems: DOS/Windows 2 | 2 | 3 | 3 |
| EET | 7701 | Electronic Fundamentals 1 | 3 | 2 | 4 |
| EET | 7702 | Electronic Fundamentals 2 | 3 | 2 | 4 |
| CPET | 7705 | Survey of Digital Systems | 3 | 2 | 4 |
| EET | 7716 | Computer Calculations for Electronics | 3 | 3 | 4 |
| EET | 7780 | Computer Repair: General Systems | 2 | 3 | 3 |
| EET | 7781 | Computer Repair: Advanced Systems | 2 | 3 | 3 |
| | | | 26 | 25 | 36 |
| | | | | | 36 |

## Environmental Engineering Technology (EVET)

The Environmental Engineering Technology program prepares students in key environmental areas which include collecting soil and water samples, air monitoring, managing cleanup activities, complying with regulations, making recommendations concerning solid and hazardous waste management and performing laboratory testing. EVET graduates are prepared to enter positions at environmental restoration sites, government agencies, laboratories, consulting firms, conservation districts, and local industries.

The Environmental Engineering Technology program is accredited by TAC/ABET.

## ENVIRONMENTAL ENGINEERING TECHNOLOGY

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| MAT | 1191 | Algebra and Trigonometry 1 | 3 | 2 | 4 |
| CHE | 2231 | Fundamentals of General Chemistry | 3 | 3 | 4 |
| EVET | 7607 | Environmental Sampling | 2 | 3 | 3 |
| EVS | 7622 | Environmental Science 2 | 3 | 2 | 4 |
| EVET | 7670 | Regulations & Permits | 2 | 3 | 3 |
| | | | 13 | 13 | 18 |
| **SECOND TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| CHE | 2232 | Fundamentals of Organic Chemistry | 3 | 3 | 4 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 7 | 43 | 9 |
| **THIRD TERM** | | | | | |
| MAT | 11XX | Algebra Elective | 4 | 0 | 4 |
| EVET | 7613 | Environmental Surveying & Drafting | 3 | 3 | 4 |
| EVET | 7616 | Environmental Chemistry | 2 | 3 | 3 |
| EVS | 7623 | Environmental Geology | 3 | 2 | 4 |
| EVET | 7675 | Solid Waste Management | 2 | 3 | 3 |
| | | | 14 | 11 | 18 |
| **FOURTH TERM** | | | | | |
| SPE | 102X | Speech Elective | 3 | 0 | 3 |
| PHY | 2291 | Physics 1 (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 7 | 42 | 9 |

| | | | | | |
|---|---|---|---|---|---|
| **FIFTH TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| MAT | 11XX | Calculus Elective | 4 | 0 | 4 |
| PHI | 1625 | Ethics | 3 | 0 | 3 |
| EVET | 7676 | Hazardous Waste Management | 2 | 3 | 3 |
| CET | 7935 | Introduction to CAD (CET) | 2 | 3 | 3 |
| | | | 14 | 6 | 16 |
| **SIXTH TERM** | | | | | |
| MAT | 1179 | Applied Statistics | 4 | 0 | 4 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 5 | 40 | 6 |
| **SEVENTH TERM** | | | | | |
| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| EVET | 7612 | Environmental Microbiology | 3 | 3 | 4 |
| EVET | 7614 | Basic Mechanics of Fluids | 3 | 3 | 4 |
| EVET | 7646 | Water & Wastewater Technology | 3 | 2 | 4 |
| EVET | 7671 | Air Pollution Control | 3 | 3 | 4 |
| | | | 15 | 11 | 19 |
| **EIGHTH TERM** | | | | | |
| PHY | 2292 | Physics 2 (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 42 | 6 |
| **NINTH TERM** | | | | | |
| ECO | 1513 | Macroeconomics | 3 | 0 | 3 |
| PHY | 2293 | Physics 3 (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| EVET | 7677 | Treatment Technologies | 2 | 3 | 3 |
| | 7XXX | Technical Elective | 2 | 3 | 3 |
| | | | 10 | 8 | 13 |
| **TENTH TERM** | | | | | |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | XXXX | Social Science Elective | 3 | 0 | 3 |
| | | | 4 | 40 | 5 |
| | | | | | 119 |

Technical Elective: Any EVET, CET, SLT or other courses approved by the Program Chair
Social Science Elective: Any PSY, SOC, HST, PHI
Speech Elective: SPE 1020, SPE 1022
Algebra and Calculus Electives: MAT 1192 or MAT 1173 and MAT 1193; MAT 1152 and MAT 1154
Physics: PHY 2295, PHY 2296, PHY 2297 may be substituted for PHY 2291, PHY 2292, PHY 2293

## Water and Wastewater Major (EVETW)

The Water and Wastewater Technology major under the EVET program places an emphasis on water and wastewater treatment as well as the operation and design of water and wastewater treatment facilities. Courses in this major will focus on biological as well as physical-chemical treatment processes, collection and distribution systems, calculations for water and wastewater personnel, safety, statistics and QA/QC.

## WATER AND WASTEWATER MAJOR

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| MAT | 1191 | Algebra and Trigonometry 1 | 3 | 2 | 4 |
| CHE | 2231 | Fundamentals of General Chemistry | 3 | 3 | 4 |
| EVET | 7607 | Environmental Sampling | 2 | 3 | 3 |
| EVET | 7670 | Regulations & Permits | 2 | 3 | 3 |
| | | | 13 | 11 | 17 |
| **SECOND TERM** | | | | | |
| CHE | 2232 | Fundamentals of Organic Chemistry | 3 | 3 | 4 |
| EVET | 764X | Calculations for Operators Elective | 2 | 3 | 3 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 6 | 46 | 9 |
| **THIRD TERM** | | | | | |
| MAT | 11XX | Algebra Elective | 4 | 0 | 4 |
| PHY | 2291 | Physics 1 (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| EVET | 7613 | Environmental Surveying & Drafting | 3 | 3 | 4 |
| EVET | 7616 | Environmental Chemistry | 2 | 3 | 3 |
| EVET | 7646 | Water & Wastewater Technology | 3 | 2 | 4 |
| | | | 15 | 10 | 19 |
| **FOURTH TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| EVET | 7602 | Supervisory Management in the Environmental Field | 3 | 2 | 4 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 7 | 42 | 9 |
| **FIFTH TERM** | | | | | |
| SPE | 1022 | Professional Presentations | 2 | 2 | 3 |
| MAT | 1179 | Applied Statistics | 4 | 0 | 4 |
| MAT | 11XX | Calculus Elective | 4 | 0 | 4 |
| PHI | 1625 | Ethics | 3 | 0 | 3 |
| CET | 7935 | Introduction to CAD (CET) | 2 | 3 | 3 |
| | | | 15 | 5 | 17 |
| **SIXTH TERM** | | | | | |
| EVET | 760X | Operations of Treatment Plants Elective | 3 | 2 | 4 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 42 | 6 |
| **SEVENTH TERM** | | | | | |
| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| PHY | 2292 | Physics 2 (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| EVET | 7612 | Environmental Microbiology | 3 | 3 | 4 |
| EVET | 7614 | Basic Mechanics of Fluids | 3 | 3 | 4 |
| | | | 12 | 8 | 15 |
| **EIGHTH TERM** | | | | | |
| EVET | 7647 | Collection & Distribution Systems | 2 | 3 | 3 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 3 | 43 | 5 |
| **NINTH TERM** | | | | | |
| ECO | 1513 | Macroeconomics | 3 | 0 | 3 |
| | 15XX | Social Science Elective | 3 | 0 | 3 |
| PHY | 2293 | Physics 3 (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| EVET | 7677 | Treatment Technologies | 2 | 3 | 3 |
| EVET | 76XX | Technical Elective | 2 | 3 | 3 |
| | | | 13 | 8 | 16 |
| **TENTH TERM** | | | | | |
| EVET | 7605 | Environmental Statistics | 3 | 2 | 4 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 42 | 6 |
| | | | | | 119 |

Calculations for Operators Elective: EVET 7643 or EVET 7644
Operations of Treatment Plants Elective: EVET 7603 or EVET 7604
Algebra and Calculus Electives: MAT 1192 or MAT 1173 and MAT 1193; MAT 1152 and MAT 1154
Social Science Elective: Any PSY, SOC, HST, PHI
Technical Elective: Any EVET, CET, SLT or other courses approved by the Program Chair
Physics: PHY 2295, PHY 2296, PHY 2297 may be substituted for PHY 2291, PHY 2292, PHY 2293

## HVAC and Energy Management Technology (HVAC)

Students in the HVAC program study HVAC systems theory, operation, and design and learn to select, install and maintain systems, and troubleshoot and correct problems within an entire system as well as the individual components. Graduates may also be responsible for central plant operations, plant technical support, service management, and even technical sales.

In an alternating or parallel sequence between school and job, students may work for a local firm or institution through a cooperative education job in the HVAC field. All of the courses in the program are offered in evening classes, and many are also offered in day classes. The core HVAC program is also offered as a certificate program in the evening.

## HVAC AND ENERGY MANAGEMENT TECHNOLOGY

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| MAT | 1191 | Algebra and Trigonometry 1 | 4 | 0 | 4 |
| EMT | 7525 | HVAC Fundamentals | 3 | 2 | 4 |
| EET | 7710 | DC Circuit Analysis | 5 | 0 | 5 |
| EET | 7711 | DC Circuits Lab | 0 | 3 | 1 |
| | | | 15 | 5 | 17 |
| **SECOND TERM** | | | | | |
| EMT | 7536 | Evaluation of Building Electrical Systems | 3 | 2 | 4 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | XXXX | Humanities/Social Science Elective | 3 | 0 | 3 |
| | | | 7 | 42 | 9 |
| **THIRD TERM** | | | | | |
| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| MAT | 1192 | Algebra and Trigonometry 2 | 4 | 0 | 4 |
| EMT | 7535 | HVAC Equipment and Systems | 3 | 0 | 3 |
| EET | 7720 | AC Circuit Analysis | 5 | 0 | 5 |
| EET | 7721 | AC Circuits Lab | 0 | 3 | 1 |
| | | | 15 | 3 | 16 |
| **FOURTH TERM** | | | | | |
| EMT | 7501 | HVAC - Plant Maintenance | 3 | 2 | 4 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 42 | 6 |
| **FIFTH TERM** | | | | | |
| MAT | 1193 | Analytic Geometry & Calculus 1 | 4 | 0 | 4 |
| PHY | 2291 | Physics 1 (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| MET | 7027 | Beginning AutoCAD | 2 | 3 | 3 |
| EMT | 7541 | Evaluation of Energy-Efficient Building Systems | 3 | 2 | 4 |
| | | | 12 | 7 | 15 |
| **SIXTH TERM** | | | | | |
| | 7XXX | Computer Programming Elective | 2 | 3 | 3 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | XXXX | Humanities/Social Science Elective | 3 | 0 | 3 |
| | | | 6 | 43 | 8 |
| **SEVENTH TERM** | | | | | |
| SPE | 1022 | Professional Presentations | 2 | 2 | 3 |
| PHY | 2292 | Physics 2 (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| | 7XXX | Technical Elective | 3 | 3 | 4 |
| | | | 8 | 7 | 11 |
| **EIGHTH TERM** | | | | | |
| EMT | 7546 | Motors and Controls for Building Systems | 3 | 2 | 4 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | XXXX | Humanities/Social Science Elective | 3 | 0 | 3 |
| | | | 7 | 42 | 9 |
| **NINTH TERM** | | | | | |
| ENG | 1015 | Technical Writing 2 | 3 | 0 | 3 |
| PHY | 2293 | Physics 3 (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| EMT | 7552 | HVAC Controls and Building Automation Systems | 3 | 2 | 4 |
| | | | 9 | 4 | 11 |
| **TENTH TERM** | | | | | |
| EMT | 7555 | Energy Economics, Accounting and Auditing | 3 | 2 | 4 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 42 | 6 |
| | | | | | 108 |

Humanities/Social Science Elective: Any PSY, SOC, ECO, GEO, LBR, HST, PHI, HUM (Except PSY 1502 and ECO 1513)
Computer Programming Elective: MET 7027, EET 7035, EMT 7036, CPET 7717
Technical Elective: EMT 7146, EMT 7157, EET 7740, CPET 7748. Other courses with program chair consent.

## HVAC AND ENERGY MANAGEMENT CERTIFICATE (HVACC)

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| MAT | 1171 | Technical Mathematics 1 | 4 | 0 | 4 |
| PHY | 2221 | Technical Physics 1 | 2 | 3 | 3 |
| MET | 7027 | Beginning AutoCAD | 2 | 3 | 3 |
| EMT | 7501 | HVAC - Plant Maintenance | 3 | 2 | 4 |
| EMT | 7525 | HVAC Fundamentals | 3 | 2 | 4 |
| EMT | 7535 | HVAC Equipment and Systems | 3 | 0 | 3 |
| EMT | 7536 | Evaluation of Building Electrical Systems | 3 | 2 | 4 |
| EMT | 7541 | Evaluation of Energy-Efficient Building Systems | 3 | 2 | 4 |
| EMT | 7546 | Motors and Controls for Building Systems | 3 | 2 | 4 |
| EMT | 7552 | HVAC Controls and Building Automation Systems | 3 | 2 | 4 |
| EMT | 7555 | Energy Economics, Accounting and Auditing | 3 | 2 | 4 |
| | | | 32 | 20 | 41 |
| | | | | | 41 |

## Laser Electro-Optics Engineering Technology (LEOT)

The Laser Electro-Optics Technology program gives students practical experience and theoretical training in the field. Graduates of this program will have a good basic background in fundamentals of lasers and electronic principles. The Laser Electro-Optics Engineering Technology graduate should fit well into an organization that uses lasers.

The Bio-Laser Option is available for students who wish to focus on the medical applications of lasers. Ophthalmology, plastic surgery, dermatology, neurology, dentistry and diagnostics are just a few examples of laser usage in medicine. This option will suit students who want to work in the health care field while being challenged by advanced technology.

The Laser Electro-Optics Engineering Technology program is accredited by TAC/ABET and has been a recipient of an Ohio Board of Regents Program Excellence Award.

## LASER ELECTRO-OPTICS ENGINEERING TECHNOLOGY

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| MAT | 1191 | Algebra and Trigonometry 1 | 3 | 2 | 4 |
| PHY | 2291 | Physics 1 (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| LOT | 6710 | Introduction to Lasers | 3 | 3 | 4 |
| EET | 7710 | DC Circuit Analysis | 5 | 0 | 5 |
| EET | 7711 | DC Circuits Lab | 0 | 3 | 1 |
| BT | 9200 | Professional Practices | 1 | 0 | 1 |
| | | | 15 | 10 | 19 |
| **SECOND TERM** | | | | | |
| PHY | 2293 | Physics 3 (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 42 | 6 |
| **THIRD TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| MAT | 1192 | Algebra and Trigonometry 2 | 4 | 0 | 4 |
| LOT | 6715 | Laser Safety | 2 | 2 | 3 |
| LOT | 6720 | Geometrical and Wave Optics | 3 | 3 | 4 |
| EET | 7720 | AC Circuit Analysis | 5 | 0 | 5 |
| EET | 7721 | AC Circuits Lab | 0 | 3 | 1 |
| | | | 17 | 8 | 20 |
| **FOURTH TERM** | | | | | |
| SPE | 102X | Speech Elective | 3 | 0 | 3 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 40 | 5 |
| **FIFTH TERM** | | | | | |
| MAT | 1193 | Analytic Geometry & Calculus 1 | 4 | 0 | 4 |
| LOT | 6730 | Optical Components and Devices | 3 | 3 | 4 |
| LOT | 6735 | Industrial Laser Systems | 3 | 3 | 4 |
| EET | 7730 | Electronics 1 | 5 | 2 | 6 |
| | | | 15 | 8 | 18 |
| **SIXTH TERM** | | | | | |
| ECO | 151X | Economics Elective | 3 | 0 | 3 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 40 | 5 |
| **SEVENTH TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| LOT | 6740 | Applications of Lasers | 3 | 3 | 4 |
| LOT | 6741 | Introduction to Fiber Optics | 3 | 3 | 4 |
| LOT | 6749 | Laser Electro-Optic Project | 0 | 4 | 2 |
| LOT | 6758 | Laser Electronics | 2 | 3 | 3 |
| | 7XXX | Computer Programming Elective | 2 | 3 | 3 |
| | | | 13 | 16 | 19 |
| **EIGHTH TERM** | | | | | |
| PHY | 2292 | Physics 2 (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 42 | 6 |
| **NINTH TERM** | | | | | |
| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| LOT | 6745 | Optical System Design | 3 | 3 | 4 |
| LOT | 6750 | Laser Electro-Optic Measurements | 3 | 3 | 4 |
| LOT | 6768 | Laser Maintenance | 2 | 3 | 3 |
| | XXXX | Social Science Elective | 3 | 0 | 3 |
| | | | 14 | 9 | 17 |
| **TENTH TERM** | | | | | |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | XXXX | Social Science Elective | 3 | 0 | 3 |
| | | | 4 | 40 | 5 |
| | | | | | 120 |

Speech Elective: SPE 1020, SPE 1024
Economics Elective: ECO 1512, ECO 1513
Computer Programming Elective: MET 7027, EMT 7036, CPET 7717, MET 7125
Social Science Elective: Any PSY, SOC, ECO, GEO, LBR

## LASER ELECTRO-OPTICS ENGINEERING TECHNOLOGY - BIO-LASERS OPTION (LEOB)

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| MAT | 1191 | Algebra and Trigonometry 1 | 4 | 0 | 4 |
| CHE | 2236 | Physiological Chemistry | 3 | 3 | 4 |
| LOT | 6710 | Introduction to Lasers | 3 | 3 | 4 |
| EET | 7710 | DC Circuit Analysis | 5 | 0 | 5 |
| EET | 7711 | DC Circuits Lab | 0 | 3 | 1 |
| | | | 15 | 9 | 18 |
| **SECOND TERM** | | | | | |
| PHY | 2293 | Physics 3 (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| MCH | 4000 | Introduction to Medical Terminology | 1 | 2 | 2 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 5 | 44 | 8 |
| **THIRD TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| MAT | 1192 | Algebra and Trigonometry 2 | 4 | 0 | 4 |
| LOT | 6715 | Laser Safety | 2 | 2 | 3 |
| LOT | 6720 | Geometrical and Wave Optics | 3 | 3 | 4 |
| EET | 7720 | AC Circuit Analysis | 5 | 0 | 5 |
| EET | 7721 | AC Circuits Lab | 0 | 3 | 1 |
| | | | 17 | 8 | 20 |
| **FOURTH TERM** | | | | | |
| BIO | 4014 | Anatomy and Physiology 1 | 3 | 2 | 4 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 42 | 6 |
| **FIFTH TERM** | | | | | |
| MAT | 1193 | Analytic Geometry & Calculus 1 | 4 | 0 | 4 |
| LOT | 6730 | Optical Components and Devices | 3 | 3 | 4 |
| LOT | 6736 | Medical Laser Systems | 3 | 3 | 4 |
| EET | 7730 | Electronics 1 | 5 | 2 | 6 |
| | | | 15 | 8 | 18 |
| **SIXTH TERM** | | | | | |
| ECO | 151X | Economics Elective | 3 | 0 | 3 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 40 | 5 |
| **SEVENTH TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| LOT | 6741 | Introduction to Fiber Optics | 3 | 3 | 4 |
| LOT | 6742 | Medical Lasers Applications | 3 | 3 | 4 |
| LOT | 6758 | Laser Electronics | 2 | 3 | 3 |
| | 7XXX | Computer Program Elective | 2 | 3 | 3 |
| | | | 13 | 12 | 17 |
| **EIGHTH TERM** | | | | | |
| SPE | 102X | Speech Elective | 3 | 0 | 3 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 40 | 5 |
| **NINTH TERM** | | | | | |
| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| BIO | 4015 | Anatomy and Physiology 2 | 3 | 2 | 4 |
| LOT | 6750 | Laser Electro-Optic Measurements | 3 | 3 | 4 |
| LOT | 6768 | Laser Maintenance | 2 | 3 | 3 |
| | | | 11 | 8 | 14 |
| **TENTH TERM** | | | | | |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |

| | | | | | |
|---|---|---|---|---|---|
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | XXXX | Social Science Elective | 3 | 0 | 3 |
| | | | 5 | 80 | 7 |
| | | | | | 118 |

Speech Elective: SPE 1020, SPE 1024
Economics Elective: ECO 1512, ECO 1513
Computer Programming Elective: MET 7027, EET 7035, EMT 7036, CPET 7717, MET 7125
Social Science Elective: Any PSY, SOC, ECO, GEO, LBR

## Mechanical Engineering Technology (MET)

In the Mechanical Engineering Technology program, students use advanced CAD-CAM software (including, but not limited to, AutoCAD) to learn Computer Aided Design, Computer Aided Manufacturing, and Computer Aided Engineering (CAD/CAM/CAE). As Mechanical Engineering Technicians, graduates apply their talents in the design and development of anything from consumer products to industrial machinery and automated manufacturing systems.

MET cooperative education students and graduates are employed in positions such as CAD/CAM Systems Operator, Mechanical Systems Design Technician, Product Engineer, and Development Engineer. For those students who desire to continue their education toward a Bachelor's degree, MET articulation agreements have been established with UC-OCAS, NKU, and Miami University.

In addition to the base MET Design curriculum, students may specialize in Manufacturing (CAD/CAM) or Plastic Materials and Processes.

The MET Design program, MET Design Manufacturing major and MET Plastics option are all offered as both day and evening programs. Part-time and evening students can earn an Associate of Applied Science degree in as little as three years by attending class only two nights per week.

The Mechanical Engineering Technology program is accredited by TAC/ABET.

## MECHANICAL ENGINEERING TECHNOLOGY (METD)

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| MAT | 1191 | Algebra and Trigonometry 1 | 3 | 2 | 4 |
| PHY | 2291 | Physics 1 (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| MET | 7008 | Engineering Drawing 1 | 2 | 3 | 3 |
| MET | 7110 | AutoCAD 1 (Mechanical) | 2 | 3 | 3 |
| MET | 7310 | Manufacturing Processes with CNC Programming 1 | 2 | 3 | 3 |
| BT | 9200 | Professional Practices | 1 | 0 | 1 |
| | | | 13 | 13 | 18 |
| **SECOND TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 40 | 5 |
| **THIRD TERM** | | | | | |
| MAT | 1192 | Algebra and Trigonometry 2 | 4 | 0 | 4 |
| PHY | 2292 | Physics 2 (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| MET | 7120 | AutoCAD 2 (Mechanical) | 2 | 3 | 3 |
| MET | 7121 | Engineering Drawing 2 with AutoCAD | 2 | 3 | 3 |
| MET | 7130 | Engineering Mechanics-Statics | 3 | 2 | 4 |
| | | | 14 | 10 | 18 |
| **FOURTH TERM** | | | | | |
| MET | 7125 | Visual BASIC (MET) | 3 | 2 | 4 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 42 | 6 |
| **FIFTH TERM** | | | | | |
| MAT | 1193 | Analytic Geometry & Calculus 1 | 4 | 0 | 4 |
| MET | 7122 | MET CAD 3 | 2 | 3 | 3 |
| MET | 7132 | Hydraulics & Pneumatics | 3 | 3 | 4 |
| MET | 7140 | Strength of Materials | 3 | 3 | 4 |
| MET | 7141 | Kinematics & Dynamics of Machines | 3 | 2 | 4 |
| | | | 15 | 11 | 19 |
| **SIXTH TERM** | | | | | |
| CHE | 2231 | Fundamentals of General Chemistry | 3 | 3 | 4 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 43 | 6 |
| **SEVENTH TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| PSY | 1505 | Introduction to Psychology 1 | 3 | 0 | 3 |
| MET | 7111 | Engineering Materials | 3 | 2 | 4 |
| MET | 7150 | Machine Design 1 | 3 | 3 | 4 |
| EET | 7733 | Electrical Applications | 3 | 2 | 4 |
| | | | 15 | 7 | 18 |
| **EIGHTH TERM** | | | | | |
| SPE | 1020 | Public Speaking | 3 | 0 | 3 |
| MET | 7198 | MET Design Project 1 | 2 | 3 | 3 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 6 | 43 | 8 |
| **NINTH TERM** | | | | | |
| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| ECO | 1512 | Microeconomics | 3 | 0 | 3 |
| MET | 7148 | Applied Thermodynamics | 3 | 2 | 4 |
| MET | 7155 | Machine Design 2 | 3 | 3 | 4 |
| MET | 7158 | MET Design Project 2 | 2 | 3 | 3 |
| | | | 14 | 8 | 17 |
| **TENTH TERM** | | | | | |
| LBR | 1535 | Introduction to Labor/ Management Relations | 3 | 0 | 3 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 40 | 5 |
| | | | | | 120 |

## Manufacturing Major (METM)

MET manufacturing is a major that is directed towards the computer integrated manufacturing component of industry. The manufacturing major provides a slightly different curriculum which includes CAD/CAM (Computer Aided Design/Computer Aided Manufacturing), CNC (Computer Numerical Control) programming, process planning and quality control courses (QC and SPC). Throughout the curriculum, students gain hands-on experience by working directly on Industrial Grade CNC machines.

## MECHANICAL ENGINEERING TECHNOLOGY-MANUFACTURING MAJOR

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| MAT | 1191 | Algebra and Trigonometry 1 | 3 | 2 | 4 |
| PHY | 2291 | Physics 1 (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| MET | 7008 | Engineering Drawing 1 | 2 | 3 | 3 |
| MET | 7110 | AutoCAD 1 (Mechanical) | 2 | 3 | 3 |

| | | | | | |
|---|---|---|---|---|---|
| MET | 7310 | Manufacturing Processes with CNC Programming 1 | 2 | 3 | 3 |
| BT | 9200 | Professional Practices | 1 | 0 | 1 |
| | | | 13 | 13 | 18 |
| **SECOND TERM** | | | | | |
| MAT | 1192 | Algebra and Trigonometry 2 | 4 | 0 | 4 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 5 | 40 | 6 |
| **THIRD TERM** | | | | | |
| PHY | 2292 | Physics 2 (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| MET | 7120 | AutoCAD 2 (Mechanical) | 2 | 3 | 3 |
| MET | 7121 | Engineering Drawing 2 with AutoCAD | 2 | 3 | 3 |
| MET | 7130 | Engineering Mechanics-Statics | 3 | 2 | 4 |
| MET | 7320 | Manufacturing Processes with CNC Programming 2 | 2 | 3 | 3 |
| | | | 12 | 13 | 17 |
| **FOURTH TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| MET | 7125 | Visual BASIC (MET) | 3 | 2 | 4 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 7 | 42 | 9 |
| **FIFTH TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| MAT | 1193 | Analytic Geometry & Calculus 1 | 4 | 0 | 4 |
| MET | 7122 | MET CAD 3 | 2 | 3 | 3 |
| MET | 7132 | Hydraulics & Pneumatics | 3 | 3 | 4 |
| MET | 7330 | CAD-CAM 1 | 2 | 3 | 3 |
| | | | 14 | 9 | 17 |
| **SIXTH TERM** | | | | | |
| CHE | 2231 | Fundamentals of General Chemistry | 3 | 3 | 4 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 43 | 6 |
| **SEVENTH TERM** | | | | | |
| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| MET | 7111 | Engineering Materials | 3 | 2 | 4 |
| MET | 7340 | CAD-CAM 2 | 2 | 3 | 3 |
| MET | 7345 | Manufacturing Process Planning and Estimating | 3 | 3 | 4 |
| EET | 7733 | Electrical Applications | 3 | 2 | 4 |
| | | | 14 | 10 | 18 |
| **EIGHTH TERM** | | | | | |
| SPE | 1020 | Public Speaking | 3 | 0 | 3 |
| MET | 7198 | MET Design Project 1 | 2 | 3 | 3 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 6 | 43 | 8 |
| **NINTH TERM** | | | | | |
| PSY | 1505 | Introduction to Psychology 1 | 3 | 0 | 3 |
| ECO | 1512 | Microeconomics | 3 | 0 | 3 |
| MET | 7158 | MET Design Project 2 | 2 | 3 | 3 |
| MET | 7351 | CAD-CAM 3 | 3 | 3 | 4 |
| MET | 7355 | Quality Control with SPC | 2 | 3 | 3 |
| | | | 13 | 9 | 16 |
| **TENTH TERM** | | | | | |
| LBR | 1535 | Introduction to Labor/ Management Relations | 3 | 0 | 3 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 40 | 5 |
| | | | | | 120 |

## Manufacturing Engineering Technology CNC Certificate (METMC)

The program is a short-term certificate program designed for the specialized field of CNC Programming and Computer Aided Manufacturing. Normally, the student should be able to complete the certificate course requirements in one year on less. In addition, all courses required for the CNC Certificate will be applied directly toward the two-year Associate of Applied Science degree in Mechanical Engineering Technology-Manufacturing Major.

## MANUFACTURING CNC CERTIFICATE

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| MAT | 1191 | Algebra and Trigonometry 1 | 4 | 0 | 4 |
| MET | 7110 | AutoCAD 1 (Mechanical) | 2 | 3 | 3 |
| MET | 7310 | Manufacturing Processes with CNC Programming 1 | 2 | 3 | 3 |
| MET | 7320 | Manufacturing Processes with CNC Programming 2 | 2 | 3 | 3 |
| MET | 7330 | CAD-CAM 1 | 2 | 3 | 3 |
| | | | 12 | 12 | 16 |
| | | | | | 16 |

## Plastics Option (METP)

In the MET Plastic option, students receive specialized training in the areas of thermoplastic, thermoset and composite materials, blow molds and injection molds, and plastic joining and assembly techniques.

Graduates are prepared to design mechanical systems, utilize CAD systems, manage projects, perform product testing and specialize in plastics materials and processes.

## MECHANICAL ENGINEERING TECHNOLOGY - PLASTICS OPTION

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| MAT | 1191 | Algebra and Trigonometry 1 | 3 | 2 | 4 |
| PHY | 2291 | Physics 1 (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| MET | 7008 | Engineering Drawing 1 | 2 | 3 | 3 |
| MET | 7110 | AutoCAD 1 (Mechanical) | 2 | 3 | 3 |
| MET | 7310 | Manufacturing Processes with CNC Programming 1 | 2 | 3 | 3 |
| BT | 9200 | Professional Practices | 1 | 0 | 1 |
| | | | 13 | 13 | 18 |
| **SECOND TERM** | | | | | |
| CHE | 2231 | Fundamentals of General Chemistry | 3 | 3 | 4 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 43 | 6 |
| **THIRD TERM** | | | | | |
| MAT | 1192 | Algebra and Trigonometry 2 | 4 | 0 | 4 |
| PHY | 2292 | Physics 2 (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| MET | 7120 | AutoCAD 2 (Mechanical) | 2 | 3 | 3 |
| MET | 7121 | Engineering Drawing 2 with AutoCAD | 2 | 3 | 3 |
| MET | 7130 | Engineering Mechanics-Statics | 3 | 2 | 4 |
| MET | 7220 | Plastic Materials and Processes 1 | 2 | 3 | 3 |
| | | | 16 | 13 | 21 |
| **FOURTH TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 40 | 5 |

| | | | | | |
|---|---|---|---|---|---|
| **FIFTH TERM** | | | | | |
| MAT | 1193 | Analytic Geometry & Calculus 1 | 4 | 0 | 4 |
| MET | 7122 | MET CAD 3 | 2 | 3 | 3 |
| MET | 7132 | Hydraulics & Pneumatics | 3 | 3 | 4 |
| MET | 7140 | Strength of Materials | 3 | 3 | 4 |
| MET | 7230 | Plastic Materials and Processes 2 | 2 | 3 | 3 |
| | | | 14 | 12 | 18 |
| **SIXTH TERM** | | | | | |
| MET | 7125 | Visual BASIC (MET) | 3 | 2 | 4 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 42 | 6 |
| **SEVENTH TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| MET | 7111 | Engineering Materials | 3 | 2 | 4 |
| MET | 7150 | Machine Design 1 | 3 | 3 | 4 |
| MET | 7240 | Plastic Materials and Processes 3 | 3 | 2 | 4 |
| EET | 7733 | Electrical Applications | 3 | 2 | 4 |
| | | | 15 | 9 | 19 |
| **EIGHTH TERM** | | | | | |
| PSY | 1505 | Introduction to Psychology 1 | 3 | 0 | 3 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 40 | 5 |
| **NINTH TERM** | | | | | |
| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| SPE | 1020 | Public Speaking | 3 | 0 | 3 |
| ECO | 1512 | Microeconomics | 3 | 0 | 3 |
| MET | 7155 | Machine Design 2 | 3 | 3 | 4 |
| MET | 7250 | Plastic Materials and Processes 4 | 3 | 2 | 4 |
| | | | 15 | 5 | 17 |
| **TENTH TERM** | | | | | |
| LBR | 1535 | Introduction to Labor/ Management Relations | 3 | 0 | 3 |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 40 | 5 |
| | | | | | 120 |

## Mechanical Engineering Technology - Quality Control Certificate (METMQ)

The Quality Control Certificate program is a short-term certificate program for the specialized field of Quality Assurance/Quality Control (QA/QC). Most students complete the Certificate course requirements in less than two years, attending one or two courses per term. Most courses required for the Quality Control Certificate will be applied directly toward the two year Associate of Applied Science Degree in Mechanical Engineering Technology - Manufacturing Major. Program graduates engage in such jobs as manufacturing inspection, quality control technician and quality assurance specialist.

## QUALITY CONTROL CERTIFICATE

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| ENG | 1015 | Technical Writing 2 | 3 | 0 | 3 |
| SPE | 1027 | Team Building and Group Facilitation | 3 | 0 | 3 |
| MAT | 1179 | Introduction to Applied Statistics | 4 | 0 | 4 |
| QCC | 6271 | Introduction to Total Quality Management | 3 | 0 | 3 |
| QCC | 6272 | Introduction to Design of Experiments | 3 | 2 | 4 |
| MET | 7008 | Engineering Drawing 1 | 2 | 3 | 3 |
| MET | 7310 | Manufacturing Processes with CNC Programming 1 | 2 | 3 | 3 |
| MET | 7320 | Manufacturing Processes with CNC Programming 2 | 2 | 3 | 3 |
| MET | 7345 | Manufacturing Process Planning and Estimating | 3 | 3 | 4 |
| MET | 7355 | Quality Control with SPC | 3 | 3 | 4 |
| | | | 28 | 17 | 34 |
| | | | | | 34 |

## Ophthalmic Optics Technology (OPT)

The Ophthalmic Optics Technology curriculum represents a balance between practical and theoretical optics and ophthalmic dispensing of eyeware and contact lenses. The curriculum includes the study of lens surfacing, cutting, edging, and finishing of ophthalmic lenses and the fabrication and fitting of lenses into ophthalmic frames.

The Ophthalmic Optics Technology program prepares graduates for positions as technicians who work as ophthalmic dispensers in optical retail outlets, optometrist or ophthalmolgist offices. In these positions, the licensed optician assists the patients to select frames, adjust and fit the glasses. In the laboratory, opticians manufacture lenses using various types of equipment to meet the specifications of the prescriptions. Graduates may also work as sales representatives for optical industries.

## OPHTHALMIC OPTICS ENGINEERING TECHNOLOGY (OPT)

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| MAT | 1171 | Technical Mathematics 1 | 4 | 0 | 4 |
| MCH | 4000 | Introduction to Medical Terminology | 1 | 2 | 2 |
| EMS | 4730 | CPR for Health Care Professionals | 0 | 2 | 1 |
| EMS | 4731 | First Aid | 0 | 2 | 1 |
| OPT | 6810 | Ophthalmic Optics 1 | 3 | 3 | 4 |
| OPT | 6812 | Ocular Anatomy and Physiology | 3 | 3 | 4 |
| BT | 9200 | Professional Practices | 1 | 0 | 1 |
| | | | 12 | 12 | 17 |
| **SECOND TERM** | | | | | |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| **THIRD TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| MAT | 1172 | Technical Mathematics 2 | 4 | 0 | 4 |
| BIO | 4009 | General Microbiology | 3 | 3 | 4 |
| OPT | 6820 | Ophthalmic Optics 2 | 3 | 3 | 4 |
| | | | 13 | 6 | 15 |
| **FOURTH TERM** | | | | | |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| **FIFTH TERM** | | | | | |
| PSY | 1505 | Introduction to Psychology 1 | 3 | 0 | 3 |
| OT | 1850 | Computerized Business Applications | 3 | 2 | 4 |
| OPT | 6830 | Ophthalmic Optics 3 | 3 | 3 | 4 |
| OPT | 6831 | Ophthalmic Dispensing 1 | 2 | 3 | 3 |
| OPT | 6833 | Contact Lenses 1 | 3 | 3 | 4 |
| | | | 14 | 11 | 18 |
| **SIXTH TERM** | | | | | |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |
| **SEVENTH TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| MGT | 2989 | Customer Service Systems | 3 | 0 | 3 |
| OPT | 6841 | Ophthalmic Dispensing 2 | 2 | 3 | 3 |
| OPT | 6843 | Contact Lenses 2 | 3 | 3 | 4 |
| OPT | 6845 | Mechanical Optics 1 | 3 | 3 | 4 |
| | | | 14 | 9 | 17 |
| **EIGHTH TERM** | | | | | |
| ET | 9400 | Cooperative Education - Engineering Technologies (Alternating) | 1 | 40 | 2 |

| | | | | | |
|---|---|---|---|---|---|
| **NINTH TERM** | | | | | |
| SPE | 1020 | Public Speaking | 3 | 0 | 3 |
| OPT | 6851 | Ophthalmic Dispensing 3 | 2 | 3 | 3 |
| OPT | 6855 | Mechanical Optics 2 | 3 | 3 | 4 |
| OPT | 6857 | Ophthalmic Clinical Procedures 1 | 3 | 3 | 4 |
| | | | 11 | 9 | 14 |
| **TENTH TERM** | | | | | |
| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| ECO | 1512 | Microeconomics | 3 | 0 | 3 |
| PHI | 1625 | Ethics | 3 | 0 | 3 |
| OPT | 6867 | Ophthalmic Clinical Procedures 2 | 3 | 3 | 4 |
| | | | 12 | 3 | 13 |
| | | | | | 102 |

# Health Technologies Division

The Health Technologies Division at Cincinnati State brings together in one unit all programs for the education and training of health personnel. The division offers associate degree and certificate programs which are clinically intensive and prepare students to perform immediately upon graduation. Additionally, the division offers special courses, workshops, seminars and forums at which persons can learn new skills and acquire new knowledge or update the knowledge and skills needed to perform effectively on their jobs. The division affiliates with over fifty different hospitals and other health care agencies and institutions to provide clinical experiences for health students. All programs are accredited or approved by their respective professional bodies (if accreditation or approval is available).

Prerequisite courses for all programs are available at Cincinnati State.

Special Note: Facilities where clinical experiences or practicums are scheduled may have the following expectations. A student may be required to sign a statement that he or she has not been convicted of a felony and/or is not engaging in any illegal drug use. Clinical facilities may also require a student to undergo a drug screening or a criminal background check. A positive outcome of either screening without reasonable explanation may prevent completion of a particular program and limit a student's career opportunities in the health field.

## Cooperative Education

Programs of education in health technologies have a well established tradition of including experience in the clinical setting as an integral part of the educational process.

The Health Division supports the College's mission of providing a combination of theory and practice. The practical experience is received through cooperative/clinical education components, and each health program provides such experience. Refer to individual curriculum for specific information.

## Health Excel Services

Health Excel Services is available to Cincinnati State Technical and Community College Health Technologies students.

The focus of Health Excel is to provide students with a comprehensive range of educational and professional support services, which will enhance their classroom learning and assist them in professional development.

Support services available to students include special seminars, individualized tutorial assistance, career, personal and financial counseling, job shadowing opportunities, mentoring, writing and study skills assistance, and development of re-entry plan following failure in a technical program.

## Bethesda Foundation Scholars Program

The Bethesda Foundation Scholars Program is a joint venture with TriHealth and Cincinnati State Health Technologies Division. The Scholars Program is designed to improve the employment status of residents served by Bethesda Oak Hospital who are unemployed or underemployed by focusing on post-secondary education.

Participants will receive special assistance in completing one of the approved health care degrees or certificates offered by Cincinnati State's Health Technologies Division. Classes will be offered at Cincinnati State Technical and Community College and work experiences may be available at Bethesda/TriHealth facilities.

Students who do not meet federal guidelines for financial aid may be eligible for tuition, books, and fees through provisions of the Bethesda Foundation.

Interested students should contact the Health Division's Health Excel Services Coordinator at 569-1596 for program admission criteria.

## Transfer Module

Associate degree programs in the Health Technologies Division contain in their curricula most of the required courses for the Cincinnati State Transfer Module. The additional courses needed to complete the transfer module should be scheduled at times convenient to the student. Students who wish to transfer to an Ohio public university for baccalaureate degrees will find that a Cincinnati State Associate of Applied Science degree combined with a transfer module (showing grades of "C" or better) will receive preferential consideration at the receiving university.

## Health Technologies Electives

For health technologies programs that designate an elective in Social Science/Humanities areas, the following departments are appropriate selections. In order to meet the college requirement, students must select coursework from at least two different departments.

**Social Sciences**
ECO-Economics
GEO-Geography
HST-History
LBR-Labor Relations
PSY-Psychology
SOC-Sociology

**Humanities/Fine Arts**
ART-Fine Arts
CULT-Culture Studies
MUS-Music
LIT-Literature
PHI-Philosophy

For health technologies programs that designate an elective in Speech, the following are appropriate selections:
SPE - 1020, 1022, 1024, 1027

For health technologies programs that designate an elective in English, the following are appropriate selections:
ENG - 1003, 1010

## Clinical Laboratory Technician Program (CLT)

Clinical Laboratory Technicians work closely with physicians providing much of the information needed to diagnose and treat patients. They work in the laboratories of hospitals, clinics, research centers and industry. In clinical chemistry, hematology, microbiology and blood bank laboratories they form a vital part of the health care team.

Clinical Laboratory Technicians employed in a laboratory, a hospital or clinic may specialize in one or two of the several areas of laboratory work or may rotate through all the departments in the laboratory. In clinical chemistry they perform chemical analysis of the blood for constituents, including glucose, urea, chloride, sodium, potassium and enzymes. In hematology they take blood samples from patients; count red and white cells; determine coagulation, bleeding and prothrombin times; measure sedimentation rates and determine hemoglobin concentrations. In microbiology they prepare and stain slides; grow and identify the cause of infectious disease; determine the susceptibility of bacteria to antibiotics; and examine specimens for parasites. In immunohematology, they process and prepare donor blood for transfusions. In the serology department they examine specimens for antibodies against various diseases.

The Clinical Laboratory Technician program is an Associate degree program that includes two unpaid clinical laboratory rotations and four terms of paid parallel cooperative employment. The program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS), 8410 West Bryn Mawr Avenue, Suite 670, Chicago, IL 60631, (773) 714-8880.

Successful completion of the curriculum enables a student to apply to take a national certification exam. Graduates may apply to the American Society for Clinical Pathology Board of Registry to obtain certification as a Medical Laboratory Technician, MLT (ASCP), or the National Certification Agency for Medical Laboratory Personnel to obtain certification as a Clinical Laboratory Technician, CLT (NCA).

## CLINICAL LABORATORY TECHNOLOGY

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| MAT | 1151 | College Algebra | 4 | 0 | 4 |
| CHE | 2231 | Fundamentals of General Chemistry | 3 | 3 | 4 |
| BIO | 4014 | Anatomy and Physiology 1 | 3 | 2 | 4 |
| CLT | 4301 | Introduction to the Clinical Laboratory | 2 | 3 | 3 |
| | | | 12 | 8 | 15 |
| **SECOND TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| CHE | 2236 | Physiological Chemistry | 3 | 3 | 4 |
| BIO | 4015 | Anatomy and Physiology 2 | 3 | 2 | 4 |
| CLT | 4302 | Basic Hematology & Hemostasis | 1 | 6 | 3 |
| CLT | 4303 | Basic Urinalysis/Body Fluids | 2 | 3 | 3 |
| | | | 12 | 14 | 17 |
| **THIRD TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| BIO | 4016 | Anatomy and Physiology 3 | 3 | 2 | 4 |
| CLT | 4304 | Clinical Chemistry | 3 | 6 | 5 |
| CLT | 4307 | Hematology & Hemostasis 2 | 2 | 3 | 3 |
| CLT | 4317 | Instrumentation for the Clinical Laboratory | 1 | 3 | 2 |
| | | | 12 | 14 | 17 |
| **FOURTH TERM** | | | | | |
| PSY | 15XX | Psychology Elective | 3 | 0 | 3 |
| BIO | 4023 | Immunology | 3 | 0 | 3 |
| CLT | 4311 | Clinical Applications 1 - Hematology and Coagulation | 0 | 6 | 2 |
| CLT | 4312 | Clinical Applications 2 - Clinical Chemistry and Urinalysis | 0 | 6 | 2 |
| CLT | 4350 | Orientation to the Clinical Lab | 0 | 10 | 2 |
| | | | 6 | 22 | 12 |
| **FIFTH TERM** | | | | | |
| CLT | 4353 | Clinical Laboratory Practice | 1 | 40 | 6 |
| **SIXTH TERM** | | | | | |
| BIO | 4009 | General Microbiology | 3 | 3 | 4 |
| CLT | 4305 | Immunohematology | 3 | 6 | 5 |
| CLT | 9374 | Parallel Cooperative Education - Clinical Laboratory Technology | 1 | 20 | 1 |
| | | | 7 | 29 | 10 |
| **SEVENTH TERM** | | | | | |
| SPE | 1024 | Group Dynamics & Problem Solving | 3 | 0 | 3 |
| SOC | 152X | Sociology Elective | 3 | 0 | 3 |
| CLT | 4308 | Immunochemistry | 2 | 3 | 3 |
| CLT | 4310 | Clinical Mycology/Parasitology | 1 | 0 | 1 |
| CLT | 9374 | Parallel Cooperative Education - Clinical Laboratory Technology | 1 | 20 | 1 |
| | | | 10 | 23 | 11 |
| **EIGHTH TERM** | | | | | |
| BIO | 4020 | Fundamentals of Pathophysiology | 5 | 0 | 5 |
| CLT | 4306 | Clinical Bacteriology | 3 | 6 | 5 |
| CLT | 9374 | Parallel Cooperative Education - Clinical Laboratory Technology | 1 | 20 | 1 |
| | | | 9 | 26 | 11 |
| **NINTH TERM** | | | | | |
| ENG | 10XX | English Elective | 3 | 0 | 3 |
| CLT | 4309 | Clinical Lab Seminar | 0 | 3 | 1 |
| CLT | 9374 | Parallel Cooperative Education - Clinical Laboratory Technology | 1 | 20 | 1 |
| | XXXX | Humanities/Social Science Elective | 3 | 0 | 3 |
| | | | 7 | 23 | 8 |
| **TENTH TERM** | | | | | |
| CLT | 4313 | Clinical Applications 3 - Blood Bank Serology | 0 | 6 | 2 |
| CLT | 4314 | Clinical Applications 4 - Clinical Microbiology | 0 | 6 | 2 |
| | | | 0 | 12 | 4 |
| | | | | | 111 |

Humanities/Social Science Elective (Select one): ECO 1512, ECO 1513, ECO 1514, GEO 1551, GEO 1552, GEO 1553, HST 1561, HST 1562, HST 1563, HST 1568, HST 1569, HST 1570, HST 1575, HST 1576, HST 1577, HST 1578, LBR 1535, LBR 1538, LBR 1539
Humanities/Fine Arts Elective: CULT 1602, CULT 1645, CULT 1646, CULT 1647, ART 1660, MUS 1665,
LIT 1040, LIT 1041, LIT 1042, LIT 1045, LIT 1046, LIT 1047, LIT 1050, LIT 1055, LIT 1059, PHI 1620, PHI 1621, PHI 1625, PHI 1630
Psychology Elective (Select one): PSY 1502, PSY 1503, PSY 1505, PSY 1506, PSY 1508, PSY 1509, PSY 1510
Sociology Elective (Select one): SOC 1521, SOC 1523, SOC 1524, SOC 1525, SOC 1526, SOC 1527, SOC 1528, SOC 1529
English Elective: ENG 1003, ENG 1010

## Dietetic Technician Program (DT)

The Dietetic Technician is a professional in the challenging and ever-changing field of nutrition and dietetics. A Dietetic Technician is most often employed in the nutrition services department of a hospital, nursing home, long term care facility, health maintenance organization, school or wellness center.

The technician assumes a range of responsibilities assisting the licensed Dietitian in nutrition care and departmental administration. The Dietetic Technician may be responsible for many aspects of health care from nutrition care and education of clients to the management of the food service facility. Activities in which the technician may be involved include obtaining client food preferences and meal acceptance, assessing a client's nutritional status utilizing appropriate assessment tools, teaching valuable nutrition concepts to individuals of varied age groups and social backgrounds, planning menus and diet modifications, training and scheduling food service employees, and supervising food production and service.

Successful completion of this program qualifies the student to take the registration exam given by the Commission on Dietetic Registration of The American Dietetic Association. This program has been awarded accreditation from the Commission on Approval/Accreditation on Dietetics Education of The American Dietetic Association.

## DIETETIC TECHNICIAN

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| CHE | 2236 | Physiological Chemistry | 3 | 3 | 4 |
| MCH | 4000 | Introduction to Medical Terminology | 1 | 2 | 2 |
| DT | 4111 | Introduction to Dietetics Technology | 2 | 0 | 2 |
| DT | 4120 | Food Management 1 | 2 | 6 | 4 |
| | | | 8 | 11 | 12 |
| **SECOND TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| BIO | 4014 | Anatomy and Physiology 1 | 3 | 2 | 4 |
| DT | 4100 | Fundamentals of Nutrition | 3 | 2 | 4 |
| DT | 4121 | Food Management 2 | 2 | 3 | 3 |
| | | | 11 | 7 | 14 |
| **THIRD TERM** | | | | | |
| PSY | 1502 | Human Relations-Applied Psychology | 3 | 0 | 3 |
| BIO | 4015 | Anatomy and Physiology 2 | 3 | 2 | 4 |
| DT | 4102 | Nutrition for the Life Cycle | 3 | 2 | 4 |
| DT | 4112 | Dietetics Clinical Practice 1 | 0 | 9 | 3 |
| DT | 4124 | Food Service Sanitation Certificate | 2 | 0 | 2 |
| DT | 4138 | Computing for Clinical Dietetics Applications | 0 | 2 | 1 |
| | | | 11 | 15 | 17 |
| **FOURTH TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| BIO | 4016 | Anatomy and Physiology 3 | 3 | 2 | 4 |
| DT | 9375 | Parallel Cooperative Education - Dietetics Technology | 1 | 20 | 1 |
| MCH | XXXX | Health Elective | 2 | 0 | 2 |
| | | | 9 | 22 | 10 |
| **FIFTH TERM** | | | | | |
| DT | 4104 | Clinical Nutrition 1 | 3 | 2 | 4 |
| DT | 4113 | Dietetics Clinical Practice 2 | 0 | 9 | 3 |
| DT | 4125 | Quantity Food Production | 2 | 6 | 4 |
| DT | 9375 | Parallel Cooperative Education - Dietetics Technology | 1 | 20 | 1 |
| | | | 6 | 37 | 12 |
| **SIXTH TERM** | | | | | |
| SPE | 10XX | Speech Elective | 3 | 0 | 3 |
| DT | 4106 | Clinical Nutrition 2 | 3 | 2 | 4 |
| DT | 4114 | Dietetics Clinical Practice 3 | 0 | 9 | 3 |
| DT | 4155 | Management of Human Resources | 3 | 0 | 3 |
| DT | 9375 | Parallel Cooperative Education - Dietetics Technology | 1 | 20 | 1 |
| | XXXX | Humanities/Social Science Elective | 3 | 0 | 3 |
| | | | 13 | 31 | 17 |
| **SEVENTH TERM** | | | | | |
| DT | 4107 | Clinical Nutrition 3 | 3 | 2 | 4 |
| DT | 4115 | Dietetics Clinical Practice 4 | 0 | 9 | 3 |
| DT | 4122 | Food Systems Management 1 | 2 | 3 | 3 |
| DT | 4139 | Computing for Food Service Applications | 0 | 2 | 1 |
| | | | 5 | 16 | 11 |
| **EIGHTH TERM** | | | | | |
| | 10XX | English Elective | 3 | 0 | 3 |
| DT | 4117 | Community Outreach Directed Practice | 1 | 6 | 3 |
| DT | 4129 | Food Systems Management 2 | 2 | 6 | 4 |
| | XXXX | Humanities/Social Science Elective | 3 | 0 | 3 |
| | | | 9 | 12 | 13 |
| **NINTH TERM** | | | | | |
| DT | 4109 | Dietetics Technician Seminar | 2 | 0 | 2 |
| DT | 4116 | Dietetics Directed Practice 6 | 1 | 6 | 2 |
| | | | 3 | 6 | 4 |
| | | | | | 110 |

* DT 4117 can either be taken the eighth or ninth term.

Humanities/Social Science Elective (Must select coursework from at least two different departments): ECO 1512, ECO 1513, ECO 1514, GEO 1551, GEO 1552, GEO 1553, HST 1561, HST 1562, HST 1563, HST 1568, HST 1569, HST 1570, HST 1575, HST 1576, HST 1577, HST 1578, LBR 1535, LBR 1538, LBR 1539, PSY 1502, PSY 1503, PSY 1505, PSY 1506, PSY 1508, PSY 1509, PSY 1510, SOC 1521, SOC 1523, SOC 1524, SOC 1525, SOC 1526, SOC 1527, SOC 1528, SOC 1529

Humanities/Fine Arts Elective: CULT 1602, CULT 1645, CULT 1646, CULT 1647, ART 1660, MUS 1665,
LIT 1040, LIT 1041, LIT 1042, LIT 1045, LIT 1046, LIT 1047, LIT 1050, LIT 1055, LIT 1059, PHI 1620, PHI 1621, PHI 1625, PHI 1630

Speech Elective: SPE 1020, SPE 1022, SPE 1024, SPE 1027

English Elective: ENG 1003, ENG 1010

Health Elective: MCH 4007, MCH 4805, MCH 4810, MCH 4816

## Emergency Medical Technician - Paramedic Program (EMT-P)

Emergency Medical Technicians administer lifesaving care for the sick and injured. The EMT-P paramedic program includes training in basic and advanced life support management. The paramedic training program elevates the level of training and skill of the EMT-Basic to the paramedic level through the paramedic curriculum approved by the Ohio Department for Public Safety, Division of Emergency Medical Services. This program prepares students to apply biophysical and psychosocial principles to the complex practice of the paramedic. Graduates are prepared for employment in agencies providing pre-hospital emergency medical care as well as jobs in emergency and other acute care areas of the hospital.

## PARAMEDIC TECHNOLOGY

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| SPE | 1024 | Group Dynamics & Problem Solving | 3 | 0 | 3 |
| MCH | 4001 | Introduction to the Health Care System | 2 | 0 | 2 |
| BIO | 4014 | Anatomy and Physiology 1 | 3 | 2 | 4 |
| MCH | 4816 | Health and Wellness Promotion | 1 | 2 | 2 |
| | | | 12 | 4 | 14 |
| **SECOND TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| PHI | 1625 | Ethics | 3 | 0 | 3 |
| BIO | 4015 | Anatomy and Physiology 2 | 3 | 2 | 4 |
| BIO | 4016 | Anatomy and Physiology 3 | 3 | 2 | 4 |
| | | | 12 | 4 | 14 |

| | | | | | |
|---|---|---|---|---|---|
| **THIRD TERM** | | | | | |
| EMS | 4763 | Paramedic Theory and Practice 1 | 12 | 14 | 15 |
| **FOURTH TERM** | | | | | |
| EMS | 4764 | Paramedic Theory and Practice 2 | 12 | 14 | 15 |
| **FIFTH TERM** | | | | | |
| EMS | 4765 | Paramedic Theory and Practice 3 | 12 | 14 | 15 |
| **SIXTH TERM** | | | | | |
| EMS | 4766 | Paramedic Theory and Practice 4 | 12 | 14 | 15 |
| **SEVENTH TERM** | | | | | |
| PSY | 1502 | Human Relations-Applied Psychology | 3 | 0 | 3 |
| BIO | 4018 | Pharmacology | 3 | 0 | 3 |
| MCH | 4871 | Advanced Arrhythmia Recognition | 3 | 0 | 3 |
| | | | 9 | 0 | 9 |
| **EIGHTH TERM** | | | | | |
| ENG | 10XX | English Elective | 3 | 0 | 3 |
| CULT | 1602 | Issues in Human Diversity | 3 | 0 | 3 |
| BIO | 4020 | Fundamentals of Pathophysiology | 5 | 0 | 5 |
| EMS | 4782 | Pediatric Education for Pre-hospital | 1 | 2 | 2 |
| | | | 12 | 2 | 13 |
| | | | | | 110 |

English Elective: ENG 1003, ENG 1010

## Fire Service Technology Program (FST)

The Fire Service Technology program provides entry-level firefighting and EMT training to those seeking firefighter careers and advanced training and leadership skills for firefighters who wish to advance in their careers.

The scope of fire service is expanding to encompass the many needs of communities served. Many demands, small and large, are placed on fire service providers. Removing a bird's nest from a light fixture to extricating injured victims from a vehicle collision are examples of day-to-day details handled by fire departments. Fire personnel must be trained and then cross-trained in many similar and diverse subject areas.

## FIRE SERVICE TECHNOLOGY

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| MAT | 1161 | Applied Algebra | 3 | 2 | 4 |
| PE | 4066 | Resistance and Cardiorespiratory Training | 0 | 2 | 1 |
| FST | 4773 | Volunteer Firefighter | 2 | 2 | 3 |
| | | | 8 | 6 | 11 |
| **SECOND TERM** | | | | | |
| EMS | 4760 | Emergency Medical Technician Basic Training 1 | 3 | 3 | 4 |
| FST | 4785 | Law and Emergency Service Providers | 3 | 0 | 3 |
| FST | 4789 | Firefighter Internship | 0 | 12 | 2 |
| MCH | 4816 | Health and Wellness Promotion | 1 | 2 | 2 |
| | | | 7 | 17 | 11 |
| **THIRD TERM** | | | | | |
| PHI | 1625 | Ethics | 3 | 0 | 3 |
| CHE | 2231 | Fundamentals of General Chemistry | 3 | 3 | 4 |
| EMS | 4761 | Emergency Medical Technician Basic Training 2 | 3 | 6 | 5 |
| | | | 9 | 9 | 12 |
| **FOURTH TERM** | | | | | |
| FST | 4783 | Firefighter 1 | 6 | 6 | 8 |
| FST | 4784 | Firefighter 2 | 6 | 6 | 8 |
| | | | 12 | 12 | 16 |
| **FIFTH TERM** | | | | | |
| SPE | 1024 | Group Dynamics & Problem Solving | 3 | 0 | 3 |
| PHY | 2224 | Fire Service Physics | 2 | 3 | 3 |
| DT | 4136 | Personal Nutrition | 2 | 2 | 3 |
| | | | 7 | 5 | 9 |
| **SIXTH TERM** | | | | | |
| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| FST | 4786 | Fire Company Officer Management | 3 | 0 | 3 |
| EVET | 7607 | Environmental Sampling | 2 | 3 | 3 |
| EET | 7736 | Electrical Power Systems | 4 | 2 | 4 |
| | | | 12 | 5 | 13 |
| **SEVENTH TERM** | | | | | |
| ENG | 1015 | Technical Writing 2 | 3 | 0 | 3 |
| FST | 4790 | Firefighter Self Rescue | 1 | 3 | 2 |
| | XXXX | Humanities/Social Science Elective | 3 | 0 | 3 |
| | | | 7 | 3 | 8 |
| **EIGHTH TERM** | | | | | |
| PSY | 1505 | Introduction to Psychology 1 | 3 | 0 | 3 |
| FST | 4787 | Structures and Fire Concerns 1 | 2 | 0 | 2 |
| EVET | 7670 | Regulations & Permits | 2 | 3 | 3 |
| | | | 7 | 3 | 8 |
| **NINTH TERM** | | | | | |
| SPE | 1027 | Team Building and Group Facilitation | 3 | 0 | 3 |
| FST | 4788 | Structures and Fire Concerns 2 | 2 | 0 | 2 |
| FST | 4792 | Fire Service Blueprint Reading | 2 | 2 | 3 |
| | | | 7 | 2 | 8 |
| | | | | | 96 |

**TENTH TERM**

Students must take a minimum of 14 credit hours of Fire Service electives.

Fire Service Elective: FST 4791, FST 4796, HFT 4170, HFT 4171, EVET 7608, EVET 7610, ITET 5971, ITET 5972, ITET 5973, ITET 5974, ITET 5975, ITET 5976, ITET 5977, ITET 5978, ITET 5979

Humanities/Social Science Elective (must select coursework from at least two different departments): ECO 1512, ECO 1513, ECO 1514, GEO 1551, GEO 1552, GEO 1553, HST 1561, HST 1562, HST 1563, HST 1568, HST 1569, HST 1570, HST 1575, HST 1576, HST 1577, HST 1578, LBR 1535, LBR 1538, LBR 1539, PSY 1502, PSY 1503, PSY 1505, PSY 1506, PSY 1508, PSY 1509, PSY 1510, SOC 1521, SOC 1523, SOC 1524, SOC 1525, SOC 1526, SOC 1527, SOC 1528, SOC 1529

Humanities/Fine Arts Elective: CULT 1645, CULT 1646, CULT 1647, ART 1660, MUS 1665, LIT 1040, LIT 1041, LIT 1042, LIT 1045, LIT 1046, LIT 1050, LIT 1055, LIT 1059, PHI 1620, PHI 1621, PHI 1625, PHI 1630

## Health and Fitness Technology Program (HFT)

Health and fitness technicians work in many areas of health promotion. Technicians may conduct health and fitness screenings and design and lead land and/or aquatic aerobic exercise programs. They may organize special events, health promotion programs, and recreational activities. Health and fitness technicians must be able to motivate members, adapt exercises, and monitor safety and progress.

The Health and Fitness program at Cincinnati State is a two-year Associate degree program that includes a health and fitness internship and two paid cooperative education terms. A health and fitness technician may obtain certification in one or more areas: group fitness instructor, aquatic aerobics instructor, personal fitness trainer, resistance training and special populations.

## HEALTH AND FITNESS TECHNOLOGY

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| CHE | 2236 | Physiological Chemistry | 3 | 3 | 4 |
| BIO | 4075 | Foundations of Exercise Science | 3 | 2 | 4 |
| PE | 40XX | Physical Education Elective | 0 | 2 | 1 |

| | | | | | |
|---|---|---|---|---|---|
| EMS | 4730 | CPR for Health Care Professionals | 0 | 2 | 1 |
| EMS | 4731 | First Aid | 0 | 2 | 1 |
| MCH | 4816 | Health and Wellness Promotion | 1 | 2 | 2 |
| | | | 7 | 13 | 13 |
| **SECOND TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| BIO | 4014 | Anatomy and Physiology 1 | 3 | 2 | 4 |
| MCH | 4817 | Integrative Therapies for Holistic Health | 3 | 2 | 4 |
| | | | 9 | 4 | 11 |
| **THIRD TERM** | | | | | |
| BIO | 4015 | Anatomy and Physiology 2 | 3 | 2 | 4 |
| PE | 40XX | Physical Education Elective | 0 | 2 | 1 |
| DT | 4100 | Fundamentals of Nutrition | 3 | 2 | 4 |
| | | | 6 | 6 | 9 |
| **FOURTH TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| BIO | 4016 | Anatomy and Physiology 3 | 3 | 2 | 4 |
| DT | 4102 | Nutrition for the Life Cycle | 3 | 2 | 4 |
| | | | 9 | 4 | 11 |
| **FIFTH TERM** | | | | | |
| ENG | 10XX | English Elective | 3 | 0 | 3 |
| OT | 1850 | Computerized Business Applications | 3 | 2 | 4 |
| PE | 40XX | Physical Education Elective | 0 | 2 | 1 |
| BUS | XXXX | Business Elective | 3 | 0 | 3 |
| | | | 9 | 4 | 11 |
| **SIXTH TERM** | | | | | |
| CULT | 1602 | Issues in Human Diversity | 3 | 0 | 3 |
| HFT | 4180 | Leading and Developing Exercise Programs | 2 | 2 | 3 |
| BUS | XXXX | Business Elective | 3 | 0 | 3 |
| | | | 8 | 2 | 9 |
| **SEVENTH TERM** | | | | | |
| HFT | 4181 | Fitness Assessment and Exercise Prescription | 2 | 2 | 3 |
| HFT | 9368 | Cooperative Education - Health and Fitness Technology | 1 | 40 | 2 |
| | XXXX | Humanities/Social Science Elective | 3 | 0 | 3 |
| | | | 6 | 42 | 8 |
| **EIGHTH TERM** | | | | | |
| MKT | 2903 | Introduction to Marketing | 3 | 0 | 3 |
| HFT | 4182 | Community Health Assessment | 2 | 2 | 3 |
| HFT | 9368 | Cooperative Education - Health and Fitness Technology | 1 | 40 | 2 |
| | XXXX | Humanities/Social Science Elective | 3 | 0 | 3 |
| | | | 9 | 42 | 11 |
| **NINTH TERM** | | | | | |
| SPE | 1022 | Professional Presentations | 2 | 2 | 3 |
| HFT | 4183 | Health and Fitness Internship | 1 | 16 | 3 |
| HFT | XXXX | HFT Electives | 9 | 9 | 18 |
| | | | 12 | 27 | 24 |
| | | | | | 107 |

Health and Fitness Electives: Select a minimum of 18 credit hours from the following courses: HFT 4058, HFT 4060, HFT 4160, HFT 4162, HFT 4165, HFT 4166, HFT 4170, HFT 4171, HFT 4172, HFT 4173, HFT 4174, HFT 4175, HFT 4176, HFT 4177, HFT 4178, HFT 4185, HFT 4186. HFT Electives may be completed during terms 1 through 9.

Business Elective: ACC 2911, MGT 1832, MGT 2967, MGT 2971, MGT 2972

Physical Education Elective: PE 4055, PE 4056, PE 4057, PE 4062, PE 4063, PE 4064, PE 4065, PE 4067, PE 4068, PE 4069, PE 4070

Humanities/Social Science Elective: Any 15xx or 16xx course

English Elective: ENG 1003, ENG 1010, ENG 1011

## Health Information Management Program (HIM) (formerly Medical Records Technology)

Health Information Management focuses on health care data and management of information resources. Students learn to collect, integrate and analyze primary and secondary health care data, disseminate information and manage information resources related to the research, planning, provision, payment and evaluation of health care services. Students have the opportunity for paid cooperative education experiences.

Cincinnati State's program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) in cooperation with the American Health Information Management Association's Council on Accreditation. Graduates of the program will be eligible to write the national certification examination for health information technicians. After successful completion of this exam, the individual will be designated as Registered Health Information Technician (RHIT).

## HEALTH INFORMATION MANAGEMENT TECHNOLOGY

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| OT | 1850 | Computerized Business Applications | 3 | 2 | 4 |
| MCH | 4000 | Introduction to Medical Terminology | 1 | 2 | 2 |
| MCH | 4001 | Introduction to the Health Care System | 2 | 0 | 2 |
| HIM | 4405 | Orientation to Health Information | 2 | 2 | 3 |
| | | | 11 | 6 | 14 |
| **SECOND TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| BIO | 4014 | Anatomy and Physiology 1 | 3 | 2 | 4 |
| HIM | 4407 | Health Record Content and Format | 2 | 2 | 3 |
| HIM | 4415 | Legal Aspects of Health Information | 3 | 0 | 3 |
| HIM | 9373 | Cooperative Parallel Education - HIM | 1 | 20 | 1 |
| | | | 12 | 24 | 14 |
| **THIRD TERM** | | | | | |
| BIO | 4015 | Anatomy and Physiology 2 | 3 | 2 | 4 |
| HIM | 4410 | CPT Coding | 2 | 2 | 3 |
| HIM | 4411 | Clinical Abstracting | 2 | 4 | 4 |
| HIM | 4428 | Health Information Management-Record Management Directed Practice | 0 | 8 | 1 |
| HIM | 9373 | Cooperative Parallel Education - HIM | 1 | 20 | 1 |
| | | | 8 | 36 | 13 |
| **FOURTH TERM** | | | | | |
| PSY | 1502 | Human Relations-Applied Psychology | 3 | 0 | 3 |
| BIO | 4016 | Anatomy and Physiology 3 | 3 | 2 | 4 |
| HIM | 4432 | Alternative Health Record Systems | 3 | 0 | 3 |
| HIM | 4451 | Advanced CPT Coding | 2 | 2 | 3 |
| HIM | 9373 | Cooperative Parallel Education - HIM | 1 | 20 | 1 |
| | | | 12 | 24 | 14 |
| **FIFTH TERM** | | | | | |
| BIO | 4020 | Fundamentals of Pathophysiology | 5 | 0 | 5 |
| HIM | 9373 | Cooperative Parallel Education - HIM | 1 | 20 | 1 |
| | | | 6 | 20 | 6 |
| **SIXTH TERM** | | | | | |
| OT | 1863 | Electronic Spreadsheets (Excel) | 2 | 2 | 3 |
| HIM | 4420 | ICD-9-CM Coding 1 | 2 | 2 | 3 |
| HIM | 4431 | Health Information Department Management | 4 | 0 | 4 |
| HIM | 9373 | Cooperative Parallel Education - HIM | 1 | 20 | 1 |
| | XXXX | Humanities/Social Science Elective | 3 | 0 | 3 |
| | | | 12 | 24 | 14 |
| **SEVENTH TERM** | | | | | |
| SPE | 1020 | Public Speaking | 3 | 0 | 3 |
| HIM | 4417 | Statistical Applications in Health Care | 3 | 2 | 4 |
| HIM | 4421 | ICD-9-CM Coding 2 | 2 | 2 | 3 |
| HIM | 9373 | Cooperative Parallel Education - HIM | 1 | 20 | 1 |
| | | | 9 | 24 | 11 |

| | | | | | |
|---|---|---|---|---|---|
| **EIGHTH TERM** | | | | | |
| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| HIM | 4422 | ICD-9-CM Coding 3 | 2 | 2 | 3 |
| HIM | 4453 | Quality Assessment in Health Information Management | 2 | 0 | 2 |
| HIM | 9373 | Cooperative Parallel Education - HIM | 1 | 20 | 1 |
| | XXXX | Humanities/Social Science Elective | 3 | 0 | 3 |
| | | | 11 | 22 | 12 |
| **NINTH TERM** | | | | | |
| HIM | 4429 | Health Information Management Directed Practice 2 | 0 | 16 | 3 |
| HIM | 4450 | Reimbursement Methodologies | 2 | 2 | 3 |
| HIM | 4490 | HIM Capstone | 1 | 0 | 1 |
| | | | 3 | 18 | 7 |
| | | | | | 105 |

Humanities/Social Science Elective (Must select coursework from at least two different departments): ECO 1512, ECO 1513, ECO 1514, GEO 1551, GEO 1552, GEO 1553, HST 1561, HST 1562, HST 1563, HST 1568, HST 1569, HST 1570, HST 1575, HST 1576, HST 1577, 1578, LBR 1535, LBR 1538, LBR 1539, PSY 1502, PSY 1503, PSY 1505, PSY 1506, PSY 1508, PSY 1509, PSY 1510, SOC 1521, SOC 1523, SOC 1524, SOC 1525, SOC 1526, SOC 1527, SOC 1528, SOC 1529

Humanities/Fine Arts Elective: CULT 1602, CULT 1645, CULT 1646, CULT 1647, CULT 1660, CULT 1665, LIT 1040, LIT 1041, LIT 1042, LIT 1045, LIT 1046, LIT 1047, LIT 1050, LIT 1055, LIT 1059, PHI 1620, PHI 1621, PHI 1625, PHI 1630

## Integrative Medical Massage Therapy Program (IMT)

The Medical Massage Therapist is rapidly becoming an important member of the health care team, providing specialized massage therapy for a range of health problems. As the health care industry expands to incorporate wellness, fitness, disease prevention, and chronic pain management, the massage therapist works in a variety of health care settings, including hospitals, clinics, extended care facilities, and wellness centers. A Medical Massage Therapist is also qualified to establish a private practice.

The Integrative Medical Massage Therapy program is a two-year Associate degree program that combines courses related to health and wellness, business, and general education with the specialized massage therapy courses. Cincinnati State offers this program through a partnership with the SHI Integrative Medical Massage School. Upon successful completion of the two-year program the graduate will be eligible to take the State of Ohio licensure examination for medical massage.

## INTEGRATIVE MEDICAL MASSAGE THERAPY TECHNOLOGY

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| PSY | 1502 | Human Relations-Applied Psychology | 3 | 0 | 3 |
| MCH | 4001 | Introduction to the Health Care System | 2 | 0 | 2 |
| BIO | 4014 | Anatomy and Physiology 1 | 3 | 2 | 4 |
| EMS | 4730 | CPR for Health Care Professionals | 0 | 2 | 1 |
| EMS | 4731 | First Aid | 0 | 2 | 1 |
| MCH | 4816 | Health and Wellness Promotion | 1 | 2 | 2 |
| | | | 12 | 8 | 16 |
| **SECOND TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| PHI | 1625 | Ethics | 3 | 0 | 3 |
| BIO | 4015 | Anatomy and Physiology 2 | 3 | 2 | 4 |
| IMT | 4855 | Introduction to Integrative Medical Massage | 1 | 3 | 2 |
| | | | 10 | 5 | 12 |
| **THIRD TERM** | | | | | |
| CULT | 1602 | Issues in Human Diversity | 3 | 0 | 3 |
| BIO | 4016 | Anatomy and Physiology 3 | 3 | 2 | 4 |
| IMT | 4856 | Integrative Medical Massage 2 | 3 | 6 | 5 |
| | | | 9 | 8 | 12 |
| **FOURTH TERM** | | | | | |
| IMT | 4085 | Clinical Anatomy and Physiology for the Massage Therapist 1 | 3 | 6 | 5 |
| MCH | 4840 | Orientation to the Health Record | 2 | 2 | 3 |
| IMT | 4857 | Integrative Medical Massage 3 | 3 | 6 | 5 |
| | | | 8 | 14 | 13 |
| **FIFTH TERM** | | | | | |
| MGT | 2971 | Small Business Start-Up 1 | 3 | 0 | 3 |
| IMT | 4086 | Clinical Anatomy and Physiology for the Massage Therapist 2 | 3 | 6 | 5 |
| IMT | 4858 | Integrative Medical Massage 4 | 3 | 6 | 5 |
| | | | 9 | 12 | 13 |
| **SIXTH TERM** | | | | | |
| IMT | 4087 | Clinical Anatomy and Physiology for the Massage Therapist 3 | 3 | 6 | 5 |
| IMT | 4859 | Integrative Medical Massage 5 | 3 | 6 | 5 |
| IMT | 4892 | Business Practices for the Medical Massage Therapist | 3 | 0 | 3 |
| | | | 9 | 12 | 13 |
| **SEVENTH TERM** | | | | | |
| IMT | 4088 | Clinical Anatomy and Physiology for the Massage Therapist 4 | 3 | 6 | 5 |
| IMT | 4851 | Integrative Medical Massage in Health Care Settings | 1 | 3 | 2 |
| IMT | 4852 | Integrative Medical Massage Student Clinic | 3 | 6 | 5 |
| | | | 7 | 15 | 12 |
| **EIGHTH TERM** | | | | | |
| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| SPE | 1022 | Professional Presentations | 2 | 2 | 3 |
| IMT | 4893 | Integrative Medical Massage Therapy Community Service | 1 | 8 | 2 |
| IMT | 4894 | IMT Comprehensive Review | 3 | 3 | 4 |
| | XXXX | Business Elective | 3 | 0 | 3 |
| | | | 12 | 13 | 15 |
| | | | | | 106 |

Business Elective (Select 1): OT 1850, MKT 2903, MGT 2967.

## Medical Assistant Technology Program (MAC) (MA)

The Medical Assistant is a multicompetent, multiskilled professional who performs administrative, clinical, and management functions and keeps up with the dynamic changes in health care and medical practice organizations.

The Medical Assistant program prepares students to work in physicians' offices providing patient care, performing administrative tasks and managing the medical office. Administrative tasks include filing, scheduling appointments, handling correspondence, maintaining patient records, office management, billing, bookkeeping and completing insurance forms. Clinical tasks involve taking and recording medical histories, preparing patients for examinations, assisting with examinations and office surgeries, measuring vital signs, performing therapeutic and diagnostic tests, and giving injections. As a manager, the Medical Assistant manages patient care, the office and personnel, and the physician's time, personal and professional affairs.

Students may complete one year of the program for a technical certificate or continue on to the second year, earning an Associate degree upon successful completion. The first year of

the program prepares the student with entry-level job skills. The second year of the program adds additional management, clinical and educational skills. Students in either option must complete supervised clinical practices or externships to develop competencies in the skills needed by the Medical Assistant. Although students receive no reimbursement for these experiences many do find employment as a result of these placements.

Cincinnati State's Medical Assistant program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP), on recommendation of the Committee on Accreditation of the American Association of Medical Assistants.

Upon successful completion of the program, either the one or two year, graduates are eligible to take the examination to become a Certified Medical Assistant (CMA).

## MEDICAL ASSISTANT CLINICAL SPECIALIST

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| ENG | 1003 | English Composition 3 | 3 | 0 | 3 |
| BIO | 4014 | Anatomy and Physiology 1 | 3 | 2 | 4 |
| DT | 4130 | Introduction to Nutrition | 3 | 0 | 3 |
| MA | 4224 | Advanced Clinical Procedure | 2 | 3 | 3 |
| MA | 9387 | Introduction to Medical Assisting Service Learning | 1 | 1 | 1 |
| | | | 12 | 6 | 14 |
| **SECOND TERM** | | | | | |
| SPE | 1024 | Group Dynamics & Problem Solving | 3 | 0 | 3 |
| PHI | 1625 | Ethics | 3 | 0 | 3 |
| BIO | 4015 | Anatomy and Physiology 2 | 3 | 2 | 4 |
| MA | 4206 | Office Diagnostic & Treatment Procedures for Medical Assistants 1 | 2 | 3 | 3 |
| | | | 11 | 5 | 13 |
| **THIRD TERM** | | | | | |
| ITP | 1086 | Beginning ASL 1 | 3 | 2 | 4 |
| BIO | 4016 | Anatomy and Physiology 3 | 3 | 2 | 4 |
| MA | 4207 | Office Diagnostic & Treatment Procedures for Medical Assistants 2 | 2 | 3 | 3 |
| MCH | 4811 | Home Health Aide Training | 2 | 0 | 2 |
| | | | 10 | 7 | 13 |
| **FOURTH TERM** | | | | | |
| BIO | 4018 | Pharmacology | 3 | 0 | 3 |
| MA | 4213 | Medical Assisting Clinical Experience 3 | 1 | 16 | 3 |
| MA | 4215 | Medical Assisting Clinical Applications | 2 | 3 | 3 |
| MA | 9388 | Medical Assisting Service Learning Project | 0 | 3 | 1 |
| | | | 6 | 22 | 10 |
| | | | | | 50 |

## MEDICAL ASSISTANT CERTIFICATE

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| MCH | 4000 | Introduction to Medical Terminology | 1 | 2 | 2 |
| BIO | 4073 | Concepts of Biology 3 | 3 | 2 | 4 |
| MA | 4202 | Clinical Procedures 1 | 3 | 3 | 4 |
| MA | 4204 | Medical Laboratory Procedures 1 | 3 | 3 | 4 |
| MA | 4214 | Medical Office Computer Literacy | 1 | 3 | 2 |
| | | | 11 | 13 | 16 |
| **SECOND TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| MA | 4200 | Medical Office Practice 1 | 2 | 3 | 3 |
| MA | 4203 | Clinical Procedures 2 | 3 | 3 | 4 |
| MA | 4205 | Medical Laboratory Procedures 2 | 3 | 3 | 4 |
| | | | 11 | 9 | 14 |
| **THIRD TERM** | | | | | |
| MA | 4201 | Medical Office Practice 2 | 2 | 3 | 3 |
| MA | 4208 | Medical Office Insurance & Coding | 3 | 6 | 5 |
| MA | 4211 | Medical Assisting Clinical Experience 1 | 1 | 16 | 3 |
| | | | 6 | 25 | 11 |
| **FOURTH TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| PSY | 1505 | Introduction to Psychology 1 | 3 | 0 | 3 |
| MA | 4209 | Medical Assistant Seminar | 2 | 3 | 3 |
| MA | 4245 | Medical Office Billing and Reimbursement | 3 | 3 | 4 |
| | | | 11 | 6 | 13 |
| **FIFTH TERM** | | | | | |
| PSY | 1506 | Introduction to Psychology 2 | 3 | 0 | 3 |
| MA | 4212 | Medical Assisting Clinical Experience 2 | 1 | 16 | 3 |
| | | | 4 | 16 | 6 |
| | | | | | 60 |

## Multi-Competency Health Technician Program (MCH)

The Multi-Competency Health Technician program offers a flexible, innovative program designed to meet the needs of a changing health care marketplace. Students will be trained to perform multiple functions in more than one discipline while working toward the completion of a two-year associate degree.

While few employment advertisements will say "Multi-Competent Health Technician wanted," there are jobs requiring multiple skills. Most graduates will practice in the area of one of their completed certificates. Some will be asked to manage two allied departments. Yet others will choose more of a leadership role in the certificate area they originally choose. Graduates work in one of the following areas: acute care hospitals, subacute care centers (SNFs), ambulatory care settings, community health care centers, health maintenance organizations, physician offices and clinics, retirements facilities and long-term care.

**General Education Requirements: 21 credit hours total**

A. Communication Skills (12 credit hours) Options in written, technical and oral communication courses.
B. Social Behavioral Sciences (6 credit hours)
C. Arts and Humanities (3 credit hours)

**Basic Studies Requirements: 24 credit hours total**

A. Sciences (20 credit hours)
B. Math (4 credit hours)

**Core Technical Requirements: 20 credit hours total**

Requirements include Medical Terminology, Introduction to Health, Emergency Medical Procedures, Patient Care Skills, a Health Care Management course plus electives.

**Cooperative Work Experience (4 credit hours total)**

Advanced Placement for related work experience may be possible.

**Certificate Courses** A minimum of 34 credit hours of coursework. Select from the clusters below. Students must choose a minimum of two certificates.

**I. Patient Care Cluster - Acute Care Focus**

| Certificate Title | Technical Credit Hours |
|---|---|
| Nurse Aide Training | 6 |
| Patient Care Assistant | 4 |
| EMT-Basic | 10 |
| EKG-Basic & Advanced | 7 |
| Geriatric Activity Coordinator | 10 |
| | 37 |

**II. Patient Care Cluster - Elder Care Focus**

| Certificate Title | Technical Credit Hours |
|---|---|
| Nurse Aide Training | 6 |
| Geriatric Activities Coordinator | 10 |
| EKG – Basic and Advanced | 7 |
| Personal Fitness Trainer I and II HFT 4170, HFT 4171, HFT 4180, HFT 4181 | 8 |
| Home Health Care | 1 |
| | 32 |

**Environmental Cluster**

| Certificate Title | Technical Credit Hours |
|---|---|
| Central Service Technician | 29 |
| OSHA Certificate (EVET 7608) | 4 |
| Fundamentals of Industrial Hygiene (EVET 7609) | 4 |
| | 37 |

**Information Technology Cluster**

| Certificate Title | Technical Credit Hours |
|---|---|
| Medical Transcription | 17 |
| Health Unit Coordinator | 16 |
| Medical Billing and Reimbursement (MCH 4898) | 3 |
| | 36 |

**Diagnostic Cluster**

| Certificate Title | Technical Credit Hours |
|---|---|
| Clinical Assistant | 11 |
| Lab Value and Interpretation | 3 |
| EKG Basic and Adv. | 7 |
| EMT - Basic | 10 |
| Home Health Care | 1 |
| Medical Billing and Reimbursement (MCH 4898) | 3 |
| General X-Ray Machine Operator | 2 |
| | 37 |

**Food Service Cluster**

| Certificate Title | Technical Credit Hours |
|---|---|
| Dietary Manager | 18 |
| Chef Certificate | 18 |
| | 36 |

## The Cincinnati State Bethesda School of Nursing (NUR) (NURP)

The purpose of the program is to prepare graduate nurses who are eligible to take the national standardized nursing examination (NCLEX-RN) and upon passing, work as registered nurses.

The program is fully approved by the Ohio Board of Nursing and is accredited by the National League for Nursing Accreditation Commission (61 Broadway, New York, NY 10006, 1-800-669-1656). Graduates are members of the health team prepared to provide nursing care to clients with common health problems in a variety of settings.

To be eligible for the program, applicants must be graduates of an accredited high school or give evidence of high school equivalency by GED scores that meet standard core requirements set by the Ohio State Department of Education. Applicants must have grades of "C" or better in high school or college biology, chemistry and algebra courses. These courses must have been taken within seven years of application. COMPASS scores must meet program requirements. Applicants must be Ohio state-tested nurse aides. A cumulative grade point average and a specific grade point average of at least 2.5 on a 4.0 scale are required for entry. The cumulative grade point average is based upon all courses attempted at Cincinnati State. The specific grade point average is based upon attempted courses designated as Level One nursing curriculum courses. These courses are: ENG 1001, ENG 1002; PSY 1505, PSY 1506; BIO 4014, BIO 4015 and BIO 4009; SOC 1521; and MCH 4816.

A minimum grade of "C" or "Pass" is required in all curriculum courses. Support courses MUST be taken in the sequence listed in the program curriculum outlines unless they have been taken previous to the term required. Students must meet all requirements of the program, receive a minimum grade of "C" or "Pass" in all curriculum courses, attain satisfactory clinical evaluation, and maintain a minimum overall grade point average of 2.0 to remain in, progress through and to complete the program.

Current certification in CPR for health care providers is required for admission into all clinical nursing courses. A recent physical exam with up-to-date immunizations, including Hepatitis B, is required to enter the first nursing course. Students must obtain a two-step TB skin test to enter the program and obtain an annual repeat to remain in the program.

Graduation candidates must pass a nationally standardized exit exam in order to graduate from the nursing program.

Prospective students are advised that when applying for the state licensure examination, they will be required to answer a series of questions related to criminal convictions and reasons for dismissal from work positions. A positive response to any of these questions can result in disqualification as a candidate for licensure. Refer to Ohio Revised Code 4723.28 for clarification.

Students who are admitted to the program who have been convicted of felonies and/or misdemeanors are required to contact the Program Director to discuss their situation before entering the first nursing course. Students who are convicted of possession and/or distribution of controlled substances or, have positive drug screens for non-prescription controlled substances while enrolled in the program will be automatically dismissed.

A special track for Licensed Practical Nurses (NURP) with recent experience in hospitals or skilled long-term facilities exists, and persons interested in this track should request information through the Pre-Technology nursing advisor or NURP coordinator.

Students desiring to transfer nursing credit from another nursing program to Cincinnati State must contact the program chair for specific information after being admitted to the College and program. Twenty-six (26) quarter credits is the maximum amount of nursing transfer of credit permitted. Restrictions may be placed on nursing credit transfer for students who failed a nursing course or courses in another program.

## NURSING

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| PSY | 1505 | Introduction to Psychology 1 | 3 | 0 | 3 |
| SOC | 1521 | Introduction to Sociology 1 | 3 | 0 | 3 |

| | | | | | |
|---|---|---|---|---|---|
| BIO | 4014 | Anatomy and Physiology 1 | 3 | 2 | 4 |
| MCH | 4816 | Health and Wellness Promotion | 1 | 2 | 2 |
| | | | 13 | 4 | 15 |
| **SECOND TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| PSY | 1506 | Introduction to Psychology 2 | 3 | 0 | 3 |
| BIO | 4009 | General Microbiology | 3 | 3 | 4 |
| BIO | 4015 | Anatomy and Physiology 2 | 3 | 2 | 4 |
| | | | 12 | 5 | 14 |
| **THIRD TERM** | | | | | |
| PSY | 1508 | Psychology: Child Development | 3 | 0 | 3 |
| BIO | 4016 | Anatomy and Physiology 3 | 3 | 2 | 4 |
| NUR | 4931 | Nursing Skills Laboratory 1 | 0 | 3 | 1 |
| NUR | 4933 | Introduction to Nursing | 4 | 3 | 5 |
| | | | 10 | 8 | 13 |
| **FOURTH TERM** | | | | | |
| BIO | 4018 | Pharmacology | 3 | 0 | 3 |
| NUR | 4941 | Nursing Skills Laboratory 2 | 0 | 3 | 1 |
| NUR | 4943 | Common Health Problems in Nursing | 6 | 6 | 8 |
| NUR | 4946 | Health Assessment in Nursing I | 1 | 3 | 2 |
| | | | 10 | 12 | 14 |
| **FIFTH TERM** | | | | | |
| NUR | 49XX | Fifth Term Nursing Elective | 1 | 16 | 2 |
| **SIXTH TERM** | | | | | |
| NUR | 4953 | Mental Health Nursing | 3 | 6 | 5 |
| NUR | 4954 | Gerontological Nursing | 3 | 6 | 5 |
| NUR | 4956 | Health Assessment in Nursing II | 1 | 3 | 2 |
| | | | 7 | 15 | 12 |
| **SEVENTH TERM** | | | | | |
| SPE | 102X | Speech Elective | 3 | 0 | 3 |
| NUR | 4963 | Perinatal Nursing and Women's Health Issues | 3 | 6 | 5 |
| NUR | 4964 | Nursing Care of Children | 3 | 6 | 5 |
| | | | 9 | 12 | 13 |
| **EIGHTH TERM** | | | | | |
| ENG | 10XX | English Elective | 3 | 0 | 3 |
| NUR | 4973 | Adult Nursing | 6 | 12 | 10 |
| | | | 9 | 12 | 13 |
| **NINTH TERM** | | | | | |
| NUR | 4981 | Transitional Clinical Experience | 0 | 18 | 6 |
| NUR | 4982 | Management of Client Care | 6 | 0 | 6 |
| | | | 6 | 18 | 12 |
| | | | | | 108 |

Fifth Term Nursing Elective: Choose one of the following courses for a minimum of two credit hours: NUR 4937, NUR 4993,or NUR 9372
Speech Elective: SPE 1022, SPE 1024
English Elective: ENG 1010, ENG 1003
Students must complete all courses within a level with minimum grades of "C" or Pass before progressing to the next curriculum level.

## NURSING - LPN ALTERNATIVE

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| PSY | 1505 | Introduction to Psychology 1 | 3 | 0 | 3 |
| SOC | 1521 | Introduction to Sociology 1 | 3 | 0 | 3 |
| BIO | 4014 | Anatomy and Physiology 1 | 3 | 2 | 4 |
| MCH | 4816 | Health and Wellness Promotion | 1 | 2 | 2 |
| | | | 13 | 4 | 15 |
| **SECOND TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| PSY | 1506 | Introduction to Psychology 2 | 3 | 0 | 3 |
| BIO | 4009 | General Microbiology | 3 | 3 | 4 |
| BIO | 4015 | Anatomy and Physiology 2 | 3 | 2 | 4 |
| | | | 12 | 5 | 14 |
| **THIRD TERM** | | | | | |
| BIO | 4016 | Anatomy and Physiology 3 | 3 | 2 | 4 |
| NUR | 4920 | Applied Nursing Theory Concepts | 0 | 2 | 1 |
| NUR | 4921 | Nursing Skills (NURP) | 0 | 2 | 1 |
| NUR | 4945 | Health & Physical Assessment 1 (NURP) | 1 | 2 | 2 |
| | | | 4 | 8 | 8 |
| **FOURTH TERM** | | | | | |
| NUR | 4922 | Role Transition in Nursing 1 | 4 | 4 | 6 |
| NUR | 4955 | Health & Physical Assessment 2 (NURP) | 1 | 2 | 2 |
| | | | 5 | 6 | 8 |
| **FIFTH TERM** | | | | | |
| PSY | 1508 | Psychology: Child Development | 3 | 0 | 3 |
| NUR | 4923 | Role Transition in Nursing 2 | 4 | 4 | 6 |
| | | | 7 | 4 | 9 |
| **SIXTH TERM** | | | | | |
| NUR | 4924 | Nursing of Children (NURP) | 3 | 4 | 5 |
| NUR | 4925 | Perinatal Nursing and Women's Health Issues (NURP) | 3 | 4 | 5 |
| | | | 6 | 8 | 10 |
| **SEVENTH TERM** | | | | | |
| ENG | 10XX | English Elective | 3 | 0 | 3 |
| SPE | 10XX | Speech Elective | 3 | 0 | 3 |
| | | | 6 | 0 | 6 |
| **EIGHTH TERM** | | | | | |
| NUR | 4926 | Adult Nursing (NURP) | 6 | 8 | 10 |
| **NINTH TERM** | | | | | |
| NUR | 4927 | Role Transition in Nursing 3 | 6 | 12 | 12 |
| | | | | | 92 |

Speech Elective: SPE 1022, SPE 1024
English Elective: ENG 1010, ENG 1003
Students may apply for advanced standing credit for the following courses:
BIO 4018 - 3 credits with minimum grade of "C" in NUR 4921
NUR 4943 - 6 credits with minimum grade of "C" in NUR 4922
NUR 4954 - 5 credits with minimum grade of "C" in NUR 4923
NUR 9372 - 2 credits with valid work experience

Required Course Credits: 92
Advanced Standing Credits: 16
Total Credits Required: 108

All courses within a level must be completed with a minimum grade of "C" or Pass before progressing to the next curriculum level.

## Occupational Therapy Assistant Program (OTA)

Occupational therapy is the art and science of directing man's response to selected activity to promote and maintain health, to prevent disability, to assess behavior and to treat or train patients with physical or psychological dysfunction.

The term "selected activity" in the definition of occupational therapy is the key to the uniqueness of the field and relates directly to an individual's occupation. Occupation may be defined as those tasks which occupy the majority of one's time. Occupational therapy is concerned with the person biologically, psychologically and socially, and provides services to those individuals whose ability to cope with the tasks of living is threatened or impaired. Using assessment and therapeutic means, occupational therapy promotes meaningful performance throughout the life cycle and encourages a healthy balance of time spent in self-care, work and play/leisure.

The graduate Occupational Therapy Assistant is a technically qualified member of the health team who functions under the supervision or consultation of a certified/registered occupational therapist. The assistant accepts clinical responsibilities in hospitals, nursing homes, schools, rehabilitation centers or those organizations directed to maintain health and socialization of their members. The graduate will demonstrate entry-level competency in the analysis of activities and their application to patient needs; occupational therapy concepts and skills (daily living skills, group activities, media used in treatment and adaptive equipment); direction of activity programs; management of department operations; data collection; self understanding and the realization of the effect that one's behavior has on the patient/client and others; upholding the standards of the profession and identifying the need for continuing professional education and growth; and relating occupational therapy to the total health care system.

The mission of this program is to meet community manpower needs, to prepare the graduate for entry-level practice in the Cincinnati community, to educate the community, and to function within standards of the College and the AOTA.

The Occupational Therapy Assistant program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA), located at 4720 Montgomery Lane, P.O. Box 31220, Bethesda, MD 20824-1220, (301) 652-AOTA. Graduates of the program are eligible to sit for the National Certification Examination for the Occupational Therapy Assistant administered by the National Board for Certification in Occupational Therapy (NBCOT). After successful completion of this exam, the individual will be a Certified Occupational Therapy Assistant (COTA). Most states require licensure in order to practice; however, state licenses are usually based on the results of the NBCOT Certification Examination. All OTA students must complete Level II fieldwork within 20 months following completion of academic preparation.

## OCCUPATIONAL THERAPY ASSISTANT TECHNOLOGY

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| PSY | 1505 | Introduction to Psychology 1 | 3 | 0 | 3 |
| MCH | 4000 | Introduction to Medical Terminology | 1 | 2 | 2 |
| BIO | 4014 | Anatomy and Physiology 1 | 3 | 2 | 4 |
| OTA | 4600 | Introduction to Occupational Therapy | 2 | 3 | 3 |
| | | | 12 | 7 | 15 |
| **SECOND TERM** | | | | | |
| PSY | 1502 | Human Relations-Applied Psychology | 3 | 0 | 3 |
| PSY | 1506 | Introduction to Psychology 2 | 3 | 0 | 3 |
| BIO | 4015 | Anatomy and Physiology 2 | 3 | 2 | 4 |
| OTA | 4610 | Theory of Occupational Therapy | 5 | 0 | 5 |
| OTA | 4620 | Techniques of Occupational Therapy | 0 | 4 | 2 |
| EMS | 4731 | First Aid | 0 | 2 | 1 |
| EMS | 4735 | BLS for Healthcare Providers | 0 | 1 | 0.5 |
| | | | 14 | 9 | 18.5 |
| **THIRD TERM** | | | | | |
| PSY | 1508 | Psychology: Child Development | 3 | 0 | 3 |
| BIO | 4016 | Anatomy and Physiology 3 | 3 | 2 | 4 |
| OTA | 4612 | Occupational Therapy Concepts and Skills Infants and Children | 3 | 0 | 3 |
| OTA | 4622 | Therapeutic Media - Infants and Children | 0 | 4 | 2 |
| OTA | 4652 | Occupational Therapy Assisting Field Work 2 (Level 1) | 0 | 9 | 2 |
| | | | 9 | 15 | 14 |
| **FOURTH TERM** | | | | | |
| SPE | 1027 | Team Building and Group Facilitation | 3 | 0 | 3 |
| OTA | 4611 | Occupational Therapy Concepts and Skills - Psychosocial | 3 | 0 | 3 |
| OTA | 4621 | Occupational Therapy Media - Psychosocial | 0 | 4 | 2 |
| OTA | 4651 | Occupational Therapy Assisting Field Work 1 (Level 1) | 0 | 9 | 2 |
| | | | 6 | 13 | 10 |
| **FIFTH TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| SOC | 1521 | Introduction to Sociology 1 | 3 | 0 | 3 |
| MCH | 4001 | Introduction to the Health Care System | 2 | 0 | 2 |
| OTA | 4635 | Static Hand Splinting | 0 | 1 | 0.5 |
| | | | 8 | 1 | 8.5 |
| **SIXTH TERM** | | | | | |
| PSY | 1509 | Psychology: Adult Development | 3 | 0 | 3 |
| OTA | 4613 | Occupational Therapy Concepts and Skills - Phys Disabilities | 3 | 0 | 3 |
| OTA | 4623 | Therapeutic Media for Occupational Therapy-Physical Disabilities | 0 | 4 | 2 |
| OTA | 4633 | Kinesiology for Occupational Therapy | 2 | 2 | 3 |
| OTA | 4653 | Occupational Therapy Assisting Field Work 3 (Level 1) | 0 | 9 | 2 |
| | | | 8 | 15 | 13 |
| **SEVENTH TERM** | | | | | |
| BIO | 4020 | Fundamentals of Pathophysiology | 5 | 0 | 5 |
| OTA | 4614 | Occupational Therapy Concepts and Skills - Gerontology | 3 | 0 | 3 |
| OTA | 4624 | Occupational Therapy Therapeutic Media - Gerontology | 0 | 4 | 2 |
| | | | 8 | 4 | 10 |
| **EIGHTH TERM** | | | | | |
| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| OTA | 4625 | Survey of Therapeutic Media for Occupational Therapy | 0 | 6 | 3 |
| OTA | 4631 | Occupational Therapy Fundamentals Practice | 3 | 0 | 3 |
| | | | 6 | 6 | 9 |
| **NINTH TERM** | | | | | |
| OTA | 4660 | Occupational Therapy Assisting Field Work 4 (Level 2) | 0 | 40 | 6 |
| **TENTH TERM** | | | | | |
| OTA | 4661 | Occupational Therapy Assisting Field Work 5 (Level 2) | 0 | 40 | 6 |
| | | | | | 110 |

## Respiratory Care Program (RC)

Respiratory Care education at Cincinnati State is an Associate degree program that prepares students to administer all routine respiratory care procedures, continuous mechanical ventilation, hemodynamic monitoring and other specialized diagnostic and therapeutic procedures. Students also receive training in nontraditional areas such as home care and pulmonary rehabilitation. The program is 22 months in duration and includes paid cooperative education and unpaid clinical experiences. Graduates are prepared to work in acute care, long-term care and home care settings.

The program is fully accredited by CoARC, the Committee on Accreditation for Respirtory Care. Program graduates may apply for the certification examination and registry examination administered by the National Board for Respiratory Care (NBRC). Candidates who complete these requirements are recognized as Certified Respiratory Therapy Therapists (CRT) and as Registered Respiratory Therapists (RRT).

## RESPIRATORY CARE TECHNOLOGY

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| MAT | 11XX | Math Elective | 4 | 0 | 4 |
| PHY | 2244 | Health Physics 1 | 3 | 2 | 4 |
| BIO | 4014 | Anatomy and Physiology 1 | 3 | 2 | 4 |
| MCH | 4805 | Patient Care Skills | 1 | 3 | 2 |
| | | | 11 | 7 | 14 |
| **SECOND TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| BIO | 4015 | Anatomy and Physiology 2 | 3 | 2 | 4 |
| RT | 4701 | Respiratory Care Science 1 | 3 | 2 | 4 |
| RT | 4720 | Cardiopulmonary Anatomy & Physiology | 4 | 2 | 5 |
| | | | 13 | 6 | 16 |
| **THIRD TERM** | | | | | |
| BIO | 4009 | General Microbiology | 3 | 3 | 4 |
| BIO | 4016 | Anatomy and Physiology 3 | 3 | 2 | 4 |
| RT | 4702 | Respiratory Care Science 2 | 3 | 3 | 4 |
| RT | 4711 | Respiratory Care Clinical Practice 1 | 0 | 9 | 1 |
| | | | 9 | 17 | 13 |
| **FOURTH TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| BIO | 4018 | Pharmacology | 3 | 0 | 3 |
| RT | 4703 | Respiratory Care Science 3 | 3 | 2 | 4 |
| RT | 4712 | Respiratory Care Clinical Practice 2 | 0 | 9 | 1 |
| RT | 4718 | Pulmonary Diseases 1 | 3 | 0 | 3 |
| | | | 12 | 11 | 14 |
| **FIFTH TERM** | | | | | |
| RT | 4704 | Respiratory Care Science 4 | 4 | 3 | 5 |
| RT | 4713 | Respiratory Care Clinical Practice 3 | 0 | 17 | 3 |
| RT | 4719 | Pulmonary Diseases 2 | 3 | 0 | 3 |
| | | | 7 | 20 | 11 |
| **SIXTH TERM** | | | | | |
| RT | 4705 | Respiratory Care Science 5 | 3 | 2 | 4 |
| RT | 4714 | Respiratory Care Clinical Practice 4 | 0 | 22 | 4 |
| | XXXX | Humanities/Social Science Elective | 3 | 0 | 3 |
| | | | 6 | 24 | 11 |
| **SEVENTH TERM** | | | | | |
| ENG | 10XX | English Elective | 3 | 0 | 3 |
| BIO | 4020 | Fundamentals of Pathophysiology | 5 | 0 | 5 |
| RT | 4706 | Respiratory Care Science 6 | 5 | 0 | 5 |
| RT | 9376 | Parallel Cooperative Education - Respiratory Care | 1 | 20 | 1 |
| RT | 9386 | Internship - Respiratory Care | 1 | 20 | 1 |
| | | | 15 | 40 | 15 |
| **EIGHTH TERM** | | | | | |
| RT | 4707 | Respiratory Care Science 7 | 3 | 0 | 3 |
| RT | 4715 | Respiratory Care Clinical Practice 5 | 0 | 18 | 3 |
| | XXXX | Humanities/Social Science Elective | 3 | 0 | 3 |
| | XXXX | Humanities/Social Science Elective | 3 | 0 | 3 |
| | | | 9 | 18 | 12 |
| **NINTH TERM** | | | | | |
| SPE | 10XX | Speech Elective | 3 | 0 | 3 |
| RT | 4716 | Respiratory Care Clinical Practice 6 | 0 | 20 | 3 |
| RT | 4723 | Respiratory Care Seminar | 2 | 2 | 3 |
| | | | 5 | 22 | 9 |
| | | | | | 115 |

Humanities/Social Science Elective (Must select coursework from at least two different departments): ECO 1512, ECO 1513, ECO 1514, GEO 1551, GEO 1552, GEO 1553, HST 1561, HST 1562, HST 1563, HST 1568, HST 1569, HST 1570, HST 1575, HST 1576, HST 1577
Math Elective: MAT 1105, MAT 1151
English Elective: ENG 1003, ENG 1010
Speech Elective: SPE 1020, SPE 1022, SPE 1024, SPE 1027

## Surgical Technology Program (ST)

Surgical Technology, an Associate degree program, prepares practitioners specifically for the operating room scrub role. Employment opportunities include hospital operating room departments, obstetrical departments, surgical supply/processing departments, outpatient surgery centers and surgeon office practices. Most of the area hospitals are affiliated with the program.

During operative procedures, Surgical Technologists function as an integral part of the surgical team and work directly with the surgeon and registered nurse. Their responsibilities include preparation of operative equipment and supplies, instrumentation during operative procedures and other intra-operative patient care activities.

Theory and practice are integrated through the use of simulated laboratory experiences and hospital operating room experiences. Students also take supportive coursework in basic sciences, communication skills and social sciences. Students receive no monetary compensation for clinical coursework.

The program is accredited by the Commission on Accreditation of Allied Health Education Programs in collaboration with the Accreditation Review Committee on Education in Surgical Technology.

Upon satisfactory completion of the curriculum, students are eligible to take the National Certification Examination of the Association of Surgical Technologists for designation as a Certified Surgical Technologist (CST). A Certified Surgical Technologist may practice in all 50 states.

## SURGICAL TECHNOLOGY

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| MCH | 4000 | Introduction to Medical Terminology | 1 | 2 | 2 |
| BIO | 4014 | Anatomy and Physiology 1 | 3 | 2 | 4 |
| ST | 4505 | Introduction to Surgery 1 | 5 | 0 | 5 |
| | | | 12 | 4 | 14 |
| **SECOND TERM** | | | | | |
| BIO | 4009 | General Microbiology | 3 | 3 | 4 |
| ST | 4506 | Introduction to Surgery 2 | 5 | 0 | 5 |
| ST | 4541 | ST Surgery Lab | 0 | 3 | 1 |
| MAT | XXXX | Math Elective | 4 | 0 | 4 |
| | | | 12 | 6 | 14 |
| **THIRD TERM** | | | | | |
| BIO | 4015 | Anatomy and Physiology 2 | 3 | 2 | 4 |
| ST | 4531 | General Surgery 1 | 5 | 0 | 5 |
| ST | 4542 | ST Clinical & Lab Integration 1 | 1 | 6 | 3 |
| | | | 9 | 8 | 12 |
| **FOURTH TERM** | | | | | |
| SPE | 1024 | Group Dynamics & Problem Solving | 3 | 0 | 3 |
| BIO | 4016 | Anatomy and Physiology 3 | 3 | 2 | 4 |
| ST | 4532 | General Surgery 2 | 5 | 0 | 5 |
| ST | 4543 | ST Clinical & Lab Intregration 2 | 0 | 7 | 3 |
| | | | 11 | 9 | 15 |
| **FIFTH TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| BIO | 4018 | Pharmacology | 3 | 0 | 3 |
| ST | 4533 | Surgical Specialties 1 | 5 | 0 | 5 |
| ST | 4544 | Introduction to Clinical Practice | 0 | 6 | 2 |
| | | | 11 | 6 | 13 |
| **SIXTH TERM** | | | | | |
| ST | 4534 | Surgical Specialties 2 | 5 | 0 | 5 |
| ST | 4551 | ST Clinical Practice 1 | 0 | 25 | 5 |
| | XXXX | Humanities/Social Science Elective | 3 | 0 | 3 |
| | | | 8 | 25 | 13 |
| **SEVENTH TERM** | | | | | |
| ST | 4535 | Surgical Specialties 3 | 5 | 0 | 5 |
| ST | 4552 | ST Clinical Practice 2 | 0 | 25 | 5 |

| | | | | | |
|---|---|---|---|---|---|
| | XXXX | Humanities/Social Science Elective | 3 | 0 | 3 |
| | | | 8 | 25 | 13 |
| **EIGHTH TERM** | | | | | |
| ENG | 10XX | English Elective | 3 | 0 | 3 |
| MCH | 4001 | Introduction to the Health Care System | 2 | 0 | 2 |
| ST | 4553 | ST Clinical Practice 3 | 0 | 25 | 5 |
| | XXXX | Humanities/Social Science Elective | 3 | 0 | 3 |
| | | | 8 | 25 | 13 |
| | | | | | 107 |

Humanities/Social Science Elective (Must select coursework from at least two different departments): ECO 1512, ECO 1513, ECO 1514, GEO 1551, GEO 1552, GEO 1553, HST 1561, HST 1562, HST 1563, HST 1568, HST 1569, HST 1570, HST 1575, HST 1576, HST 1577, HST 1578, LBR 1535, LBR 1538, LBR 1539, PSY 1502, PSY 1503, PSY 1505, PSY 1506, PSY 1508, PSY 1509, PSY 1510, SOC 1521, SOC 1523, SOC 1524, SOC 1525, SOC 1526, SOC 1527, SOC 1528, SOC 1529
Humanities/Fine Arts Elective: CULT 1602, CULT 1645, CULT 1646, CULT 1647, ART 1660, MUS 1665,
LIT 1040, LIT 1041, LIT 1042, LIT 1045, LIT 1046, LIT 1047, LIT 1050, 1055, LIT 1059, PHI 1620, PHI 1621, PHI 1625, PHI 1630
English Elective: ENG 1003, ENG 1010
Math Elective: MAT 1105, MAT 1106, MAT 1132, MAT 1151, MAT 1152

## Associate of Technical Studies - Integrative Medical Massage Therapy (IMT)

(for licensed therapists)

The Integrative Medical Massage Therapy Program is offered through a partnership between Cincinnati State and the SHI Integrative Medical Massage School. Graduates earn an Associate of Technical Studies Degree (ATS).

Licensed Massage Therapists may work in many specialized areas of interest including sports massage, pain management, hospital massage and on-site in businesses and industry. Many graduates seek self-employment as private practitioners or as an associate in a physician's office, psychiatric or community hospital, hospice organization, or health spa.

The course of study combines courses related to health and wellness, business and general education studies to prepare graduates for employment in a variety of settings with a variety of patients.

## ASSOCIATE OF TECHNICAL STUDIES - INTEGRATIVE MEDICAL MASSAGE

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| PHI | 1625 | Ethics | 3 | 0 | 3 |
| MCH | 4000 | Introduction to Medical Terminology | 1 | 2 | 2 |
| BIO | 4014 | Anatomy and Physiology 1 | 3 | 2 | 4 |
| EMS | 4730 | CPR for Health Care Professionals | 0 | 2 | 1 |
| EMS | 4731 | First Aid | 0 | 2 | 1 |
| MCH | 4816 | Health and Wellness Promotion | 1 | 2 | 2 |
| | | | 11 | 10 | 16 |
| **SECOND TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| PSY | 1502 | Human Relations-Applied Psychology | 3 | 0 | 3 |
| BIO | 4015 | Anatomy and Physiology 2 | 3 | 2 | 4 |
| MCH | 4817 | Integrative Therapies for Holistic Health | 3 | 2 | 4 |
| | XXXX | Business Elective | 3 | 0 | 3 |
| | | | 15 | 4 | 17 |
| **THIRD TERM** | | | | | |
| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| CULT | 1602 | Issues in Human Diversity | 3 | 0 | 3 |
| BIO | 4016 | Anatomy and Physiology 3 | 3 | 2 | 4 |
| MCH | 4840 | Orientation to the Health Record | 2 | 2 | 3 |
| | | | 11 | 4 | 13 |
| **FOURTH TERM** | | | | | |
| SPE | 1022 | Professional Presentations | 2 | 2 | 3 |
| BIO | 4020 | Fundamentals of Pathophysiology | 5 | 0 | 5 |
| IMT | 4851 | Integrative Medical Massage in Health Care Settings | 1 | 3 | 2 |
| IMT | 4852 | Integrative Massage Directed Practice | 3 | 6 | 5 |
| MCH | 4897 | Massage Therapy Special Studies | 0 | 0 | 0 |
| | XXXX | Business Elective | 3 | 0 | 3 |
| | | | 14 | 11 | 18 |
| | | | | | 64 |

Completed at SHI Integrative Medical Massage School: MCH 4897
Business Elective: OT 1850, MKT 2903, MGT 2967, MGT 2971

# Program Certificates

## Aquatic Group Fitness Instructor Certificate (AGFIC)

This two-term certificate program prepares students to design and lead comprehensive aquatic classes, teaching to various fitness levels. Graduates may be employed by health clubs, corporate fitness centers, recreation programs, hospitals, or senior centers. Job activities might include designing safe aquatic classes, scheduling classes, goal setting and motivation.

After successful completion of the course a graduate is prepared to sit for a National Certification Examination and become a Certified Aquatic Instructor.

## AQUATIC GROUP FITNESS INSTRUCTOR CERTIFICATE

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| HFT | 4162 | Fundamentals of Water Aerobics | 1 | 3 | 2 |
| EMS | 4730 | CPR for Health Care Professionals | 0 | 2 | 1 |
| | | | 1 | 5 | 3 |
| **SECOND TERM** | | | | | |
| HFT | 4166 | Aquatic Group Fitness Instructor | 3 | 2 | 4 |
| | | | | | 7 |

Prerequisites: Admission to college; DE 0020, DE 0010, DE 0003 (or test out); history and physical examination within the last year.

## Central Service Technology (CSST)

This short certificate program acquaints entry-level technicians with the scope of the central service profession and the scientific principles that underlie their daily work. Individuals in this field must have a working knowledge of central service techniques for providing patient care items used in the health care facility.

The Central Service Technician processes, stores and distributes supplies and equipment used for patient care. In addition, they participate in the selection and evaluation process of patient care items, and assist with inventory control management and preventative equipment maintenance. Central Service

Technicians may be employed in health care facilities in purchasing, sterile processing, material management and central service.

Theory and practice are integrated through clinical experience at affiliated hospitals. Students receive no monetary compensation for clinical coursework.

The Central Service Technology program is approved by the International Association of Healthcare Central Service Material Management (IAHCSMM). After successful completion of the program, graduates will be recognized as Registered Central Service Technicians (RCST). Graduates are eligible for the International Certification Examination administered by IAHCSMM for designation as a Certified Registered Central Service Technician (CRCST).

## CENTRAL SERVICE CERTIFICATE

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| MCH | 4000 | Introduction to Medical Terminology | 1 | 2 | 2 |
| ST | 4584 | Introduction to CS Clinical Practice | 1 | 10 | 2 |
| ST | 4590 | Introduction to Central Service | 5 | 0 | 5 |
| ST | 4592 | Principles of Material Management in Health Care 1 | 3 | 0 | 3 |
| | | | 10 | 12 | 12 |
| **SECOND TERM** | | | | | |
| ST | 4580 | Central Service Technology 1 | 5 | 0 | 5 |
| ST | 4585 | Central Service Clinical Practice 1 | 1 | 15 | 3 |
| ST | 4593 | Principles of Material Management in Health Care 2 | 3 | 0 | 3 |
| | | | 9 | 15 | 11 |
| **THIRD TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| PSY | 1502 | Human Relations-Applied Psychology | 3 | 0 | 3 |
| ST | 4581 | Central Service Technology 2 | 5 | 0 | 5 |
| ST | 4586 | Central Service Clinical Practice 2 | 1 | 15 | 3 |
| | | | 12 | 15 | 14 |
| | | | | | 37 |

## Clinical Assistant Certificate (CALC)

Clinical Assistants work in clinical laboratories with other laboratory professionals at hospitals and clinics. They collect and process patient specimens used to prevent, detect, treat and monitor disease. Clinical Assistants prepare specimens for analysis in hematology, clinical chemistry, urinalysis, blood banking, immunology and microbiology. They are also trained to take vital signs and to perform certain basic laboratory tests.

The Clinical Assistant program at Cincinnati State consists of three terms including a clinical rotation and a paid cooperative education term. The program provides entry into the clinical laboratory profession for persons seeking marketable skills in a short period of time.

## CLINICAL ASSISTANT CERTIFICATE

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| PSY | 1502 | Human Relations-Applied Psychology | 3 | 0 | 3 |
| CLT | 4301 | Introduction to the Clinical Laboratory | 2 | 3 | 3 |
| MCH | 4805 | Patient Care Skills | 1 | 3 | 2 |
| | | | 6 | 6 | 8 |
| **SECOND TERM** | | | | | |
| OT | 3007 | Introduction to Keyboarding | 3 | 0 | 3 |
| CLT | 4303 | Basic Urinalysis/Body Fluids | 2 | 3 | 3 |
| CLT | 4350 | Orientation to the Clinical Lab | 0 | 10 | 2 |
| | | | 5 | 13 | 8 |
| **THIRD TERM** | | | | | |
| CLT | 9374 | Parallel Cooperative Education - Clinical Laboratory Technology | 1 | 20 | 1 |
| | | | | | 17 |

Prerequisites: COMPASS scores that indicate readiness for college level reading, English, and math at the level of 0025. High school biology and chemistry with grades of C or higher and within 5 years or BIO 4073 and CHE 2202, CHE 2203.

## Coding Specialist Certificate (COC)

This certificate program prepares students to accurately determine coding assignments in health care facilities using ICD-9-CM and CPT. In many instances financial reimbursement is tied to these numeric codes.

Coding specialists are in demand in hospitals, physician office practices, billing companies, long-term care facilities and insurance companies.

## CODING SPECIALIST CERTIFICATE

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| MCH | 4000 | Introduction to Medical Terminology | 1 | 2 | 2 |
| BIO | 4073 | Concepts of Biology 3 | 3 | 2 | 4 |
| | | | 4 | 4 | 6 |
| **SECOND TERM** | | | | | |
| BIO | 4074 | Human Disease | 3 | 0 | 3 |
| HIM | 4420 | ICD-9-CM Coding 1 | 2 | 2 | 3 |
| | | | 5 | 2 | 6 |
| **THIRD TERM** | | | | | |
| OT | 1850 | Computerized Business Applications | 3 | 2 | 4 |
| HIM | 4421 | ICD-9-CM Coding 2 | 2 | 2 | 3 |
| | | | 5 | 4 | 7 |
| **FOURTH TERM** | | | | | |
| HIM | 4410 | CPT Coding | 2 | 2 | 3 |
| **FIFTH TERM** | | | | | |
| HIM | 4450 | Reimbursement Methodologies | 2 | 2 | 3 |
| HIM | 4451 | Advanced CPT Coding | 2 | 2 | 3 |
| | | | 4 | 4 | 6 |
| **SIXTH TERM** | | | | | |
| HIM | 4452 | Coding Skills Clinical Lab | 0 | 3 | 1 |
| | | | | | 29 |

Prerequisites: MCH 4000, BIO 4073

## Dietary Management Certificate (DMC)

This one-year certificate program prepares students to effectively manage health care food systems. Coursework is delivered through a combination of 3-4 days on campus and a series of assignments completed at the place of employment.

Graduates are employed in nursing homes, retirement facilities, hospitals, schools and businesses. Job activities might include supervision of food production and distribution; menu planning; employee hiring, training, scheduling and evaluation; inventory controls and purchasing; and sanitation and safety controls.

Upon completion of this program, approved by the Dietary Manager's Association, students are eligible to take the national examination to become a Certified Dietary Manager.

## DIETARY MANAGEMENT CERTIFICATE

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| DT | 4156 | Dietary Manager Certificate 1 | 3 | 3 | 4 |
| **SECOND TERM** | | | | | |
| DT | 4157 | Dietary Manager Certificate 2 | 4 | 3 | 5 |
| **THIRD TERM** | | | | | |
| DT | 4158 | Dietary Manager Certificate 3 | 4 | 3 | 5 |
| **FOURTH TERM** | | | | | |
| DT | 4159 | Dietary Manager Certificate 4 | 3 | 3 | 4 |
| | | | | | 18 |

## Electrocardiography (Basic) Certificate

This course acquaints students with the basic principles of electrocardiography. The course covers topics in the electrical conductive system of the heart, patient preparation, setting up the ECG machine, and recognizing and correcting distortion problems.

## ELECTROCARDIOGRAPHY (BASIC) CERTIFICATE

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **ONE TERM CERTIFICATE** | | | | | |
| MCH | 4870 | Basic Electrocardiography | 3 | 2 | 4 |

## Electrocardiography (Advanced) - Arrhythmia Recognition Certificate

This course is a continuation of Basic ECG with special emphasis on recognizing arrhythmias. Students review of basic ECG principles, and learn interpretation of various types of atrial function and ventricular dysrhythmias, performance measurement and calculation to aid in interpretation of electrocardiograms..

## ELECTROCARDIOGRAPHY (ADVANCED) - ARRHYTHMIA RECOGNITION CERTIFICATE

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **ONE TERM CERTIFICATE** | | | | | |
| MCH | 4871 | Advanced Armythmia | 3 | 0 | 3 |

## Emergency Medical Technician - EMT Basic

This course meets the State of Ohio requirements and prepares students to take the EMT-Basic National Registry Exam. Students learn to evaluate the nature and seriousness of patient injuries; assess requirements for emergency care; administer appropriate emergency care to stabilize patient conditions; and lift, move, position and otherwise handle patients in such a way as to minimize discomfort and further injury. After successfully passing the National Registry Exam, students are eligible to apply for an EMT-Basic certificate in the State of Ohio.

## EMERGENCY MEDICAL TECHNICIAN CERTIFICATE

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| EMS | 4760 | Emergency Medical Technician Basic Training 1 | 3 | 3 | 4 |
| **SECOND TERM** | | | | | |
| EMS | 4761 | Emergency Medical Technician Basic Training 2 | 3 | 6 | 5 |
| | | | | | 9 |

## EMT-PARAMEDIC CERTIFICATE

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| BIO | 4014 | Anatomy and Physiology 1 | 3 | 2 | 4 |
| **SECOND TERM** | | | | | |
| BIO | 4015 | Anatomy and Physiology 2 | 3 | 2 | 4 |
| BIO | 4016 | Anatomy and Physiology 3 | 3 | 2 | 4 |
| | | | 6 | 4 | 8 |
| **THIRD TERM** | | | | | |
| EMS | 4763 | Paramedic Theory and Practice 1 | 12 | 14 | 15 |
| **FOURTH TERM** | | | | | |
| EMS | 4764 | Paramedic Theory and Practice 2 | 12 | 14 | 15 |
| **FIFTH TERM** | | | | | |
| EMS | 4765 | Paramedic Theory and Practice 3 | 12 | 14 | 15 |
| **SIXTH TERM** | | | | | |
| EMS | 4766 | Paramedic Theory and Practice 4 | 12 | 14 | 15 |
| | | | | | 72 |

## General X-Ray Machine Operation Certificate

This course prepares the student for Ohio licensure as a general x-ray machine operator. The curriculum includes instruction on radiation physics, radiographic techniques, darkroom processing and film handling, radiation health safety and protection, and radiation biology.

## GENERAL X-RAY MACHINE OPERATION CERTIFICATE

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **ONE TERM CERTIFICATE** | | | | | |
| MCH | 4883 | General X-Ray Machine Operation | 2 | 0 | 2 |

## Geriatric Activities Coordinator Certificate (GAC)

This three-term certificate program enables students to plan and implement diversional activities for geriatric clients. Graduates will be eligible for employment in facilities which utilize diversional activities with geriatric clients. Job duties will include planning and implementing individual and group diversional activities, as well as involvement on the care planning team. An additional 90 hours of practicum experience is necessary for NCCAP-BEC certification.

Admission requirements include: high school diploma or GED and history and physical exam within the past year.

## GERIATRIC ACTIVITIES COORDINATOR CERTIFICATE

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| OTA | 4680 | Introduction to Activities for Geriatrics | 3 | 2 | 4 |
| **SECOND TERM** | | | | | |
| OTA | 4681 | Activity Planning for Geriatrics | 3 | 3 | 4 |
| **THIRD TERM** | | | | | |
| OTA | 4682 | GAC Practicum | 1 | 10 | 2 |
| | | | | | 10 |

Prerequisites: Admission to Cincinnati State; history and physical examination within the last year.

## Group Fitness Instructor Certificate (GFIC)

Graduates may be employed by health clubs, corporate fitness centers, aerobic studios or recreation programs. Job activities may include designing safe traditional and/or step aerobic classes, scheduling classes, goal setting and motivation.

After successful completion of the courses or certificate program, a graduate is prepared to sit for a national certification examination and become a Certified Group Fitness instructor.

## GROUP FITNESS INSTRUCTOR CERTIFICATE

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| HFT | 4160 | Fundamentals of Aerobics | 1 | 3 | 2 |
| EMS | 4730 | CPR for Health Care Professionals | 0 | 2 | 1 |
| | | | 1 | 5 | 3 |
| **SECOND TERM** | | | | | |
| HFT | 4165 | Group Fitness Instructor | 2 | 4 | 4 |
| | | | | | 7 |

Prerequisites: Admission to Cincinnati State; DE 0010, DE 0003, DE 0020, or test out; history and physical examination within the last year.

## Health Unit Coordinator (UCMR)

This four-term certificate program prepares students to perform clerical functions in health care organizations. The program is intended for students seeking to develop marketable skills as an entry-level medical clerical worker. Job duties include assembling and maintaining patients' charts; processing doctor's orders; processing admissions, transfers, and discharges; and scheduling diagnostic procedures.

Health Unit Coordinators must understand the legal and ethical implications of maintaining patients' charts.

The program's first two terms consist of classes at the college covering Health Unit Coordinator procedures and communication skills. The third and fourth terms include a non-paid clinical rotation at one of the area health care organizations along with additional classes.

The Health Unit Coordinator program meets the standards of education as published by the National Association of Health Unit Coordinators. Completion of the program qualifies the student to take the National Certification Exam for Health Unit Coordinators.

## HEALTH UNIT COORDINATOR CERTIFICATE

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| MCH | 4000 | Introduction to Medical Terminology | 1 | 2 | 2 |
| MCH | 4840 | Orientation to the Health Record | 2 | 2 | 3 |
| | | | 6 | 4 | 8 |
| **SECOND TERM** | | | | | |
| OT | 30XX | Word Processing Elective | 2 | 3 | 3 |
| MCH | 4004 | Medical Terminology 2 | 1 | 2 | 2 |
| MCH | 4841 | Unit Coordinator Procedures 1 | 2 | 2 | 3 |
| | | | 5 | 7 | 8 |
| **THIRD TERM** | | | | | |
| PSY | 1502 | Human Relations-Applied Psychology | 3 | 0 | 3 |
| MCH | 4001 | Introduction to the Health Care System | 2 | 0 | 2 |
| MCH | 4004 | Medical Terminology 2 | 1 | 2 | 2 |
| MCH | 4842 | Unit Coordinator Procedures 2 | 2 | 4 | 4 |
| | | | 8 | 6 | 11 |
| **FOURTH TERM** | | | | | |
| MCH | 4004 | Medical Terminology 2 | 1 | 2 | 2 |
| MCH | 4004 | Medical Terminology 2 | 1 | 2 | 2 |
| MCH | 4849 | Unit Coordinator Practicum and Seminar | 3 | 18 | 6 |
| | | | 5 | 22 | 10 |
| | | | | | 37 |

Word Processing Elective: OT 3061 or other courses approved by Program Chair

**Medical Assistant Certificate** - see page 103.

## Medical Transcriptionist (MRTC)

The Medical Transcriptionist program is intended for persons who wish to develop marketable skills in the area of medical transcription in a short period of time. The program is offered in four terms with classes held in the late afternoon, evening and over the Internet. Medical Transcriptionists transcribe dictation by physicians and other healthcare professionals regarding patient assessment, workup, therapeutic procedures, clinical course, and other reports in order to document patient care and facilitate delivery in healthcare services.

Medical Transcriptionists work in the medical transcription or central dictation area in hospitals, clinics, physicians' offices, neighborhood health centers, health departments, health maintenance organizations (HMOs), medical transcription companies, health insurance offices and medical research and teaching centers.

## MEDICAL TRANSCRIPTIONIST CERTIFICATE

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| OT | 30XX | Word Processing Elective | 2 | 3 | 3 |
| MCH | 4000 | Introduction to Medical Terminology | 1 | 2 | 2 |
| | | | 6 | 5 | 8 |
| **SECOND TERM** | | | | | |
| MCH | 4004 | Medical Terminology Systems | 0 | 2 | 1 |
| BIO | 4073 | Concepts of Biology 3 | 3 | 2 | 4 |
| MCH | 4820 | Medical Transcription 1 | 3 | 2 | 4 |
| | | | 6 | 6 | 9 |
| **THIRD TERM** | | | | | |
| MCH | 4004 | Medical Terminology Systems | 0 | 2 | 1 |
| BIO | 4074 | Human Disease | 3 | 0 | 3 |
| MCH | 4821 | Medical Transcription 2 | 3 | 2 | 4 |
| | | | 6 | 4 | 8 |
| **FOURTH TERM** | | | | | |
| MCH | 4004 | Medical Terminology Systems | 0 | 2 | 1 |
| MCH | 4004 | Medical Terminology Systems | 0 | 2 | 1 |
| MCH | 4822 | Medical Transcription 3 | 3 | 2 | 4 |
| | | | 3 | 6 | 6 |
| | | | | | 31 |

Word Processing Elective: OT 3058, OT 3061, OT 3069

## Nurse Aide Training Certificate (NATC)

The Nurse Aide Training course teaches the skills needed to work in a nursing home or long-term care facility. These skills include bed making, checking temperatures, monitoring pulse

and respiration, giving baths and back rubs, understanding infection control precautions, feeding residents, and lifting safely to accomplish tasks without injury to self or residents. Students practice these skills in a simulated resident room and apply them in long term care facilities with guidance from professional instructors.

Upon successful completion of the program, students are eligible to take the Competency Test offered by the Ohio Department of Health.

Students must obtain a health history, physical and 2 step PPD prior to starting the program.

## NURSE AIDE TRAINING CERTIFICATE

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **ONE TERM CERTIFICATE** | | | | | |
| MCH | 4810 | Nurse Aide Training | 4 | 6 | 6 |

## Patient Care Assistant Certificate (PCA)

The Patient Care Assistant is an unlicensed assistant who supports the professional nurse in providing basic patient care in an acute care setting. The Patient Care Assistant is trained to work in hospitals in general Medical/Surgical units. The program builds upon the content covered in the Nurse Aide Training and Competency Evaluation Program. The program addresses role definition, clarification and patient focus; communication (including medical terminology); overview of basic anatomy and physiology concepts and associated common normal/abnormal observations; overview of nutrition and diet therapy; pre and post operative care; functional health patterns related to hospitalized patients and associated patient care skills.

Prospective students must have State-Tested Nurse Aide certification and high school diploma or GED equivalent.

## PATIENT CARE ASSISTANT CERTIFICATE

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **ONE TERM CERTIFICATE** | | | | | |
| MCH | 4812 | Intro to Patient Care Assistant Role | 4 | 0 | 4 |

## Personal Fitness Trainer Certificate (PFTC)

This three-term certificate program prepares students to develop safe fitness programs focused on health maintenance for healthy individuals.

Graduates may be employed by health clubs, fitness centers, or wellness centers. Job activities might include fitness testing and risk factor identification, conducting individual and group exercise programs, counseling in behavior modification and designing individualized fitness programs.

After successful completion of the courses (or certificate program) a graduate is prepared to sit for a national examination to become a Certified Personal Fitness Instructor.

## PERSONAL FITNESS TRAINER CERTIFICATE

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| BIO | 4073 | Concepts of Biology 3 | 3 | 2 | 4 |
| EMS | 4730 | CPR for Health Care Professionals | 0 | 2 | 1 |
| EMS | 4731 | First Aid | 0 | 2 | 1 |
| | | | 3 | 6 | 6 |
| **SECOND TERM** | | | | | |
| BIO | 4075 | Foundations of Exercise Science | 3 | 2 | 4 |
| HFT | 4170 | Personal Fitness Trainer 1 | 3 | 2 | 4 |
| | | | 6 | 4 | 8 |
| **THIRD TERM** | | | | | |
| HFT | 4171 | Personal Fitness Trainer 2 | 3 | 2 | 4 |
| | | | | | 18 |

Prerequisites: Admission to Cincinnati State; DE 0024, DE 0011, DE 0005, or test out; history and physical examination within the last year.

## Resistance Training Certificate (RSTC)

This certificate prepares students to develop safe, effective and efficient resistance training programs. Students evaluate biomedical, physiological and genetics factors affecting strength and muscle tissue gain and learn proper form, technique and spotting for resistance exercises using body weight, free weights, resistance machines and various other resistance-training disciplines. Proper program design and implementation are applied to both healthy adults and special populations.

Graduates may be employed as corporate, community or hospital-based fitness and personal resistance program trainers.

## RESISTANCE TRAINING CERTIFICATE

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| HFT | 4185 | Fundamentals of Resistance Training | 2 | 2 | 3 |
| EMS | 4730 | CPR for Health Care Professionals | 0 | 2 | 1 |
| EMS | 4731 | First Aid | 0 | 2 | 1 |
| | | | 2 | 6 | 5 |
| **SECOND TERM** | | | | | |
| HFT | 4186 | Resistance Training Development and Implementation | 2 | 2 | 3 |
| | | | 2 | 2 | 3 |
| | | | | | 8 |

Prerequisistes: Admission to Cincinnati State; DE 0020, DE 0010, DE 0003, or test out; history and physical examination within the last year.

## Restorative Aide Certificate

This course provides an overview of the restorative aide's role and responsibilities. Students learn lifting, moving, and ambulation procedures; care of individuals with musculoskeletal, neurological and integumentary conditions; restorative approaches to meeting nutrition, hydration, activities of daily living and personal care needs; and care documentation.

Prospective students must have State-Tested Nurse Aide or Current Nurse Aide Certification.

## RESTORATIVE AIDE CERTIFICATE

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **ONE TERM CERTIFICATE** | | | | | |
| MCH | 4813 | Restorative Aide Training | 1 | 2 | 2 |

# Humanities Division

The Humanities Division recognizes that each student is a unique combination of attitudes, beliefs, values, and experiences. The Humanities courses are designed to enable students to understand the forces which shape them, especially in the psychological, social, and economic areas, and to provide tools which will assist students either in controlling or in adapting to these forces.

Foremost among these tools is effective communication, both oral and written; therefore, the division offers a number of courses which enhance communication skills through the development of critical thinking techniques and the development of the ability to present information in a clear, organized manner.

## Programs of Study

The Humanities Division offers the Associate of Arts degree and the Associate of Applied Science degree programs described on page 60, and the certificate programs described below.

## The Writing Center

The Writing Center provides full-service writing tutoring to Cincinnati State students. Tutors are available by appointment or walk-in to help provide guidance to students in all facets of the writing process.

Individualized Composition Courses -currently, English 1001, Eng 1009, Eng 1010, and Eng 1011 are offered in the Writing Center. For individualized courses, students meet one-on-one with the course instructor to review material and complete assignments. The individualized courses offered each term are designated as course type "IND" in class schedules.

## Cooperative Education in the Humanities Division

The Humanities Division shares the College's commitment to cooperative education as an integral part of the curriculum. In order to participate in cooperative education, students in the Humanities Division degree programs must comply with College eligibility requirements and registration procedures. Students may complete their cooperative education requirement through varied (full-time or part-time) on-site work experiences. In some cases, degree-seeking students in the Humanities Division may complete their cooperative education requirement by receiving credit for past related work experience or by completing appropriate courses. However, all substitutions must be approved in advance by the Program Chair and the Cooperative Education Coordinator.

Students seeking the Associate of Arts degree must adhere to the cooperative education requirements for the AA degree, as stated on page 64.

## Transfer Module

The Associate of Arts degree requirements contain all of the requirements of the College Transfer Module.

The technical associate degree programs in the Humanities Division contain in their curricula many of the required courses for the College Transfer Module. The additional courses needed to complete the transfer module may be scheduled at times convenient to the student. Students who wish to transfer to an Ohio public university for baccalaureate degrees will find that an Associate of Applied Science degree combined with a transfer module (showing grades of C or better) will receive preferential consideration at the receiving institution.

## Early Child Care Certificate Program (ECE)

The Early Child Care Certificate program prepares students for entry-level positions in a variety of child care settings. Graduates will be prepared to assist parents in meeting the physical, emotional, and maturational needs of children from infancy to kindergarten.

Entrance requirements include: a background check, ability to perform and assist children in daily activities, a physical, and up-to-date immunizations.

Certificate completers will be eligible to apply for the Child Development Association (CDA) credential, which is awarded by the Council for Early Childhood Professional Recognition. This credential is awarded to competent care providers and home providers who have demonstrated their ability to meet the needs of children and parents in the home and in various care centers.

## EARLY CHILD CARE AND EDUCATION CERTIFICATE

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| ECE | 4359 | Introduction to Childcare | 2 | 0 | 2 |
| ECE | 4360 | Principles of Early Childhood Education | 3 | 0 | 3 |
| ECE | 4368 | Early Childcare Observation Techniques | 2 | 0 | 2 |
| ECE | 4372 | Child Abuse Recognition and Prevention | 1 | 0 | 1 |
| EMS | 4730 | CPR for Health Care Professionals | 0 | 2 | 1 |
| EMS | 4731 | First Aid | 0 | 2 | 1 |
| | | | 11 | 4 | 13 |
| **SECOND TERM** | | | | | |
| PSY | 1505 | Introduction to Psychology 1 | 3 | 0 | 3 |
| ECE | 4361 | Early Childcare 1 - Infant/Toddler | 3 | 0 | 3 |
| ECE | 4362 | Early Childcare Practicum 1- Infant/Toddler 1 | 7 | 2 | |
| ECE | 4367 | Enrichment Activities for Early Childhood Programs | 3 | 0 | 3 |
| ECE | 4369 | Parents and Families in Early Childhood Education | 2 | 0 | 2 |
| ECE | 4371 | Communicable Diseases of Early Childhood | 1 | 0 | 1 |
| | | | 13 | 7 | 14 |
| **THIRD TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| ECE | 4363 | Early Childcare 2 - Preschool | 3 | 0 | 3 |
| ECE | 4364 | Early Childcare Practicum 2 - Preschool | 1 | 7 | 2 |
| ECE | 4370 | Nutrition and Health for Early Childhood Programs | 3 | 0 | 3 |
| ECE | 4373 | Creating Safe Environments for Early Childhood Programs | 3 | 0 | 3 |
| | | | 13 | 7 | 14 |
| **FOURTH TERM** | | | | | |
| SPE | 1020 | Public Speaking | 3 | 0 | 3 |
| ECE | 4374 | Language Development and Literature for Childcare Programs | 3 | 0 | 3 |
| ECE | 9900 | Internship - Early Childcare and Education | 1 | 20 | 1 |
| | | | 7 | 20 | 7 |
| **FIFTH TERM** | | | | | |
| ECE | 4375 | Diversity Education for | | | |

| | | | | | |
|---|---|---|---|---|---|
| | | Early Childhood Programs | 3 | 0 | 3 |
| ECE | 9900 | Internship - Early Childcare and Education | 1 | 20 | 1 |
| | XXXX | Humanities/Social Science Elective | 3 | 0 | 3 |
| | | | 7 | 20 | 7 |
| | | | | | 55 |

Humanities/Social Science Elective: SOC 1273, SOC 1521, SOC 1523, SOC 1526, SOC 1528, HUM 1660, HUM 1665, PSY 1506, PSY 1508
ECE 9901 may be taken instead of ECE 9900

## Employee and Labor Relations Certificate (ELRC)

The certificate recognizes the student who successfully completes a program of courses from the Business and Social Sciences curriculums that develop competencies in the area of Human Resource Management. The student will prepare to face the complex social, legal, and economic issues of the modern American workplace. Coursework focuses on human behavior, vital management/leadership skills, and the rights and responsibilities of the employer and employee today.

This concentration of courses would be helpful to students or professionals in preparing for such positions as manager, supervisor, team leader, foreperson, department head, or employee representative. It would also be useful as a foundation for those who plan a career in the field of human resource management. Students may elect to take longer than three terms to complete the curriculum.

## EMPLOYEE AND LABOR RELATIONS CERTIFICATE

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| SPE | 1024 | Group Dynamics & Problem Solving | 3 | 0 | 3 |
| ECO | 1512 | Microeconomics | 3 | 0 | 3 |
| LBR | 1535 | Introduction to Labor/ Management Relations | 3 | 0 | 3 |
| LAW | 1823 | Business Law 1 | 3 | 0 | 3 |
| MGT | 2965 | Principles of Management 1 | 3 | 0 | 3 |
| | | | 15 | 0 | 15 |
| **SECOND TERM** | | | | | |
| SOC | 1525 | Changing Roles for Men and Women | 3 | 0 | 3 |
| LBR | 1539 | Introduction to Employment and Workplace Law 1 | 3 | 0 | 3 |
| OT | 1850 | Computerized Business Applications | 3 | 2 | 4 |
| MGT | 2966 | Principles of Management 2 | 3 | 0 | 3 |
| | XXXX | Elective | 3 | 0 | 3 |
| | | | 15 | 2 | 16 |
| **THIRD TERM** | | | | | |
| LBR | 1540 | Introduction to Employment and Workplace Law 2 | 3 | 0 | 3 |
| MGT | 1832 | Human Resource Management | 3 | 0 | 3 |
| BUS | 2973 | Business Ethics | 3 | 0 | 3 |
| | XXXX | Elective | 3 | 0 | 3 |
| | XXXX | Elective | 3 | 0 | 3 |
| | | | 15 | 0 | 15 |
| | | | | | 46 |

Electives: In consultation with Program Chair, select 3 of these courses: SPE 1027, PSY 1502, PSY 1505, PSY 1506, PSY 1509, ECO 1514, SOC 1521, SOC 1523, SOC 1524, CULT 1645, CULT 1647, BUS 1824, PHI 1625

## Human Services Certificate (HSC)

The Human Services Certificate helps students develop skills and competencies needed to enter one of the helping professions and provides a foundation for those who plan careers related to social work, family services, criminal justice, community organizing, and other areas. This certificate program, combined with an Associate of Arts degree, is a starting point for students who plan to continue their education in a human services related field.

## HUMAN SERVICES CERTIFICATE

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| SPE | 1020 | Public Speaking | 3 | 0 | 3 |
| PSY | 1502 | Human Relations-Applied Psychology | 3 | 0 | 3 |
| SOC | 1521 | Introduction to Sociology 1 | 3 | 0 | 3 |
| HUM | 9802 | Internship - Humanities & Sciences | 1 | 40 | 2 |
| | XXXX | Computer Literacy Certificate | 2 | 2 | 3 |
| | | | 15 | 42 | 17 |
| **SECOND TERM** | | | | | |
| CRJ | **1250 | Introduction to Criminal Justice | 3 | 0 | 3 |
| SOC | **1270 | Introduction to Social Work | 3 | 0 | 3 |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| PSY | 1505 | Introduction to Psychology 1 | 3 | 0 | 3 |
| SOC | 1523 | Introduction to Sociology 2 | 3 | 0 | 3 |
| SOC | 1526 | Sociology: Marriage and The Family | 3 | 0 | 3 |
| HUM | 9802 | Internship - Humanities & Sciences | 1 | 40 | 2 |
| | | | 19 | 40 | 20 |
| **THIRD TERM** | | | | | |
| SPE | 1024 | Group Dynamics & Problem Solving | 3 | 0 | 3 |
| SOC | 1272 | Social Problems | 3 | 0 | 3 |
| ECO | 1512 | Microeconomics | 3 | 0 | 3 |
| CULT | 1602 | Issues in Human Diversity | 3 | 0 | 3 |
| HUM | 9802 | Internship - Humanities & Sciences | 1 | 40 | 2 |
| | XXXX | Social Science Elective | 3 | 0 | 3 |
| | | | 16 | 40 | 17 |
| | | | | | 54 |

Computer Literacy Elective: IT 51XX, IT 5XXX, OT 18XX
** Take SOC 1270 or CRJ 1250, not both
Social Science Elective: CRJ 1257, SOC 1271, SOC 1273, SOC 1528

## Interpreter Training Services Program (ITP)

The Interpreter Training Program offers extensive coursework in American Sign Language (ASL) and deaf studies. The learning environment combines classroom instruction, experiential and self-directed growth, and community activities. Students devote a great deal of time to study, practice, skill development, observation, and community involvement, as the skills needed to succeed in Interpreter Training cannot be mastered through classroom attendance alone. Graduates may work as Interpreters, Sign Language Transliterators or other related jobs.

## INTERPRETER TRAINING PROGRAM

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| ITP | *1091 | Intermediate American Sign Language 1 | 3 | 2 | 4 |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| PSY | 1503 | Psychology of Deafness | 3 | 0 | 3 |
| SOC | 1520 | Orientation to Deafness | 3 | 0 | 3 |
| | | | 12 | 2 | 13 |
| **SECOND TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |

| | | | | | |
|---|---|---|---|---|---|
| ITP | 1092 | Intermediate American Sign Language 2 | 3 | 2 | 4 |
| PSY | 1505 | Introduction to Psychology 1 | 3 | 0 | 3 |
| ITP | 5460 | Interpreting for the Deaf | 3 | 0 | 3 |
| ITP | 5462 | Community Resources for Deaf | 3 | 0 | 3 |
| | | | 15 | 2 | 16 |
| **THIRD TERM** | | | | | |
| ITP | 1093 | Intermediate American Sign Language 3 | 3 | 2 | 4 |
| PSY | 1506 | Introduction to Psychology 2 | 3 | 0 | 3 |
| ITP | 5463 | Role of Interpreter | 3 | 0 | 3 |
| ITP | XXXX | ITP Elective | 3 | 0 | 3 |
| | | | 12 | 2 | 13 |
| **FOURTH TERM** | | | | | |
| ENG | 1003 | English Composition 3 | 3 | 0 | 3 |
| ITP | 5461 | Preparation for ITP Practicum | 3 | 0 | 3 |
| ITP | 5464 | Sign-to-Voice Interpreting 1 | 3 | 2 | 4 |
| ITP | 5475 | Educational Interpreting 1 | 3 | 0 | 3 |
| | | | 12 | 2 | 13 |
| **FIFTH TERM** | | | | | |
| ITP | 1094 | Advanced American Sign Language 1 | 3 | 2 | 4 |
| MAT | 1121 | Business Mathematics 1 | 3 | 0 | 3 |
| ITP | 5465 | Sign-to-Voice Interpreting 2 | 3 | 2 | 4 |
| ITP | 5470 | Transliterating 1 | 4 | 0 | 4 |
| | | | 13 | 4 | 15 |
| **SIXTH TERM** | | | | | |
| SPE | 1020 | Public Speaking | 3 | 0 | 3 |
| ITP | 1095 | Advanced American Sign Language 2 | 3 | 2 | 4 |
| ITP | 5466 | Sign-to-Voice Interpreting 3 | 3 | 2 | 4 |
| ITP | 5480 | ITP Practicum 1 | 2 | 10 | 3 |
| | | | 11 | 14 | 14 |
| **SEVENTH TERM** | | | | | |
| ITP | 1096 | Advanced American Sign Language 3 | 3 | 2 | 4 |
| ITP | 5467 | Sign-to-Voice Interpreting 4 | 3 | 2 | 4 |
| ITP | 5481 | ITP Practicum 2 | 2 | 10 | 3 |
| | XXXX | COMPUTER LITERACY ELECTIVE | 2 | 2 | 3 |
| | | | 10 | 16 | 14 |
| **EIGHTH TERM** | | | | | |
| ITP | 5471 | Medical/Technical/Legal Interpreting | 4 | 0 | 4 |
| ITP | 5472 | Specialized Interpreting | 4 | 0 | 4 |
| ITP | 5482 | ITP Practicum 3 | 2 | 10 | 3 |
| | | | 10 | 10 | 11 |
| | | | | | 109 |

*Beginning ASL 1, 2, and 3 (ITP 1086, ITP 1087, ITP 1088) or advisor approval of equivalent experience are prerequisites to Intermediate ASL 1.
ITP Electives: ITP 1089, ITP 5468, ITP 5478, ITP 5474, ITP 5479
Computer Literacy Elective: OT 1850, OT 1863, OT 3058, OT 3059, OT 3062, IT 5102, IT 5103, IT 5105

## Deaf Studies Certificate (DSC)

The Deaf Studies Certificate enables students to learn about sign language and deaf culture in order to be involved as an advocate or signer, but not as a paid professional interpreter.

## DEAF STUDIES CERTIFICATE

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| ITP | *1091 | Intermediate American Sign Language 1 | 3 | 2 | 4 |
| PSY | 1503 | Psychology of Deafness | 3 | 0 | 3 |
| SOC | 1520 | Orientation to Deafness | 3 | 0 | 3 |
| ITP | 5460 | Interpreting for the Deaf | 3 | 0 | 3 |
| | | | 12 | 2 | 13 |
| **SECOND TERM** | | | | | |
| ITP | 1092 | Intermediate American Sign Language 2 | 3 | 2 | 4 |
| ITP | 5462 | Community Resources for Deaf | 3 | 0 | 3 |
| ITP | 5463 | Role of Interpreter | 3 | 0 | 3 |
| ITP | XXXX | ITP ELECTIVE | 3 | 0 | 3 |
| | | | 12 | 2 | 13 |
| **THIRD TERM** | | | | | |
| ITP | 1093 | Intermediate American Sign Language 3 | 3 | 2 | 4 |
| ITP | 5464 | Sign-to-Voice Interpreting 1 | 3 | 2 | 4 |
| ITP | XXXX | ITP ELECTIVE | 3 | 0 | 3 |
| | | | 9 | 4 | 11 |
| | | | | | 37 |

*Beginning ASL 1, 2, 3 (ITP 1086, ITP 1087, ITP 1088) or advisor approval of
equivalent experience are prerequisites to Intermediate ASL 1.
ITP Electives: ITP 1089, ITP 5468, ITP 5474, ITP 5475, ITP 5478, ITP 5479

## Law Enforcement (ATSLE)

The Law Enforcement program is an Associate of Technical Studies-Type B degree program cooperatively offered by Cincinnati State and the Cincinnati Police Academy. To enroll in this degree program, students must be currently enrolled in an accredited or approved Peace/Police Officer Training School or must present proof of certification from an approved Training School.

## ASSOCIATE OF TECHNICAL STUDIES - LAW ENFORCEMENT

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| CRJ | 1299 | Special Studies-Criminal Justice | 45 | 0 | 45 |
| **SECOND TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| MAT | 1151 | College Algebra | 4 | 0 | 4 |
| PSY | 1502 | Human Relations-Applied Psychology | 3 | 0 | 3 |
| PSY | 1505 | Introduction to Psychology 1 | 3 | 0 | 3 |
| | | | 13 | 0 | 13 |
| **THIRD TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| SPE | 1024 | Group Dynamics & Problem Solving | 3 | 0 | 3 |
| SOC | 1521 | Introduction to Sociology 1 | 3 | 0 | 3 |
| | XXXX | Social Science Elective | 3 | 0 | 3 |
| | | | 12 | 0 | 12 |
| **FOURTH TERM** | | | | | |
| ENG | 1011 | Business Communications | 3 | 0 | 3 |
| MAT | 1132 | Statistics | 4 | 0 | 4 |
| PHI | 1620 | Critical Thinking | 3 | 0 | 3 |
| | XXXX | Social Science Elective | 3 | 0 | 3 |
| | | | 13 | 0 | 13 |
| **FIFTH TERM** | | | | | |
| | XXXX | Social Science Elective | 3 | 0 | 3 |
| | XXXX | Social Science Elective | 3 | 0 | 3 |
| | XXXX | Humanities Elective | 3 | 0 | 3 |
| | XXXX | Computer Literacy Elective | 2 | 2 | 3 |
| | | | 11 | 2 | 12 |
| | | | | | 95 |

To enroll in this program, a student must present proof of certification of OPOTA training.
Social Science Elective: CRJ 1251, CRJ 1252, CRJ 1253, CRJ 1254, CRJ 1255, CRJ 1256, CRJ 1257
PSY 1506, PSY 1510
ECO 1513, SOC 1523, SOC 1525, LBR 1535, GEO 1551, HST 1567, HST 1569, HST 1570
Humanities Elective: PHI 1621, PHI 1625, CULT 1602, SPN 1080, SPN 1081, SPN 1082, ITP 1086, ITP 1087, ITP 1088
Computer Literacy Elective: OT 1850, OT 1863, OT 3058

# Information Technologies Division

To ensure that Ohio keeps pace in the information technology (IT) arena, the Joint Council of the Ohio Board of Regents and the State Board of Education developed "itWorks.Ohio"—a comprehensive plan designed to keep Ohio-educated students, in secondary schools, colleges, and universities, on the leading edge of IT knowledge and skills.

Cincinnati State has created a new Information Technologies Division, structured to address the four occupational cluster areas defined by the state's new IT initiative: Information Services and Support, Multimedia Information Design, Network Systems, and Programming and Software Development.

## Entrance Competencies

Students entering programs in the Information Technologies Division are expected to be familiar with some commonly-used software applications and basic Internet operations. Students may be asked to demonstrate these competencies through standardized skills assessment tests or by completing prerequisite courses, if necessary. Program advisors will assist students in determining if minimum competencies have been met.

## Cooperative Education

Through the cooperative education program, the Information Technologies Division provides instruction that combines classroom learning with practical hands-on experience in business and industry environments. Cooperative education is an integral part of the IT programs, and degree-seeking students are required to participate in co-op work experiences.

## Information Services and Support Area

The Information Services and Support area includes degree programs in Computer Information Systems and PC Support and Administration, as well as a new program in Database Management Systems Technology. A separate major in Database Administration is also available. This area also offers two certificate programs related to IBM AS/400 computer systems.

## Computer Information Systems Technology (CIS)

The Computer Information Systems program prepares students to operate a range of computers used in business and industry to support corporate informational needs. Students gain knowledge of operating systems and programming languages and concepts and learn how to organize computer-related personnel, equipment, and corporate resources to support business success. Job titles for graduates include AS/400 Computer Operator and Data Center Manager.

## COMPUTER INFORMATION SYSTEMS TECHNOLOGY

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| MAT | 1124 | Business Algebra | 4 | 0 | 4 |
| BUS | 2925 | Business Principles | 3 | 0 | 3 |
| IT | 5201 | Information Technology Concepts | 2 | 3 | 3 |
| IT | 5231 | Operating Systems: DOS/Windows 1 | 2 | 3 | 3 |
| BT | 9200 | Professional Practices | 1 | 0 | 1 |
| | | | 12 | 6 | 14 |
| **SECOND TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| IT | 9500 | Cooperative Education - Information Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 40 | 5 |
| **THIRD TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| MAT | 1111 | Statistics 1 | 3 | 0 | 3 |
| ACC | 2911 | Principles of Accounting 1 | 3 | 2 | 4 |
| IT | 5206 | Programming Logic and BASIC | 4 | 6 | 6 |
| IT | 5230 | Introduction to Computer Operations | 2 | 3 | 3 |
| | | | 15 | 11 | 19 |
| **FOURTH TERM** | | | | | |
| SOC | 1521 | Introduction to Sociology 1 | 3 | 0 | 3 |
| IT | 9500 | Cooperative Education - Information Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 40 | 5 |
| **FIFTH TERM** | | | | | |
| MGT | 2989 | Customer Service Systems | 3 | 0 | 3 |
| IT | 5233 | Operating Systems: AS/400 1 | 2 | 3 | 3 |
| IT | 5240 | Advanced Facilities: AS/400 | 4 | 6 | 6 |
| IT | 5261 | RPG 400 1 | 4 | 6 | 6 |
| | | | 13 | 15 | 18 |
| **SIXTH TERM** | | | | | |
| PSY | 1505 | Introduction to Psychology 1 | 3 | 0 | 3 |
| IT | 9500 | Cooperative Education - Information Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 40 | 5 |
| **SEVENTH TERM** | | | | | |
| LAW | 1823 | Business Law 1 | 3 | 0 | 3 |
| IT | 5211 | Data Communications 1 | 2 | 3 | 3 |
| IT | 5241 | Applications: AS/400 | 2 | 3 | 3 |
| IT | 5311 | Database Management Systems | 2 | 3 | 3 |
| IT | 5351 | CIS Design Project 1 | 2 | 3 | 3 |
| | | | 11 | 12 | 15 |
| **EIGHTH TERM** | | | | | |
| ECO | 1512 | Microeconomics | 3 | 0 | 3 |
| IT | 5352 | CIS Design Project 2 | 2 | 3 | 3 |
| IT | 9500 | Cooperative Education - Information Technologies (Alternating) | 1 | 40 | 2 |
| | | | 6 | 43 | 8 |
| **NINTH TERM** | | | | | |
| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| MKT | 2903 | Introduction to Marketing | 3 | 0 | 3 |
| IT | 5234 | Operating Systems: AS/400 2 | 2 | 3 | 3 |
| IT | 5312 | Data Warehousing: AS/400 | 2 | 3 | 3 |
| IT | 5353 | CIS Design Project 3 | 2 | 3 | 3 |
| | | | 12 | 9 | 15 |
| **TENTH TERM** | | | | | |
| SPE | 1020 | Public Speaking | 3 | 0 | 3 |
| IT | 9500 | Cooperative Education - Information Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 40 | 5 |
| | | | | | 109 |

Social Science Elective: Any PSY, SOC, LBR, HST, GEO, ECO
Programming Elective: IT 5251, IT 5291
Algebra Elective: MAT 1124, MAT 1151
Statistics Elective: MAT 1179, MAT 1132, or MAT 1111 and MAT 1112
Technical Elective: IT 5110, IT 5207

## AS/400 Certificates

These certificate programs prepare students for certification tests related to IBM AS/400 computer systems.
Certifications for these certificates are computer system operator, system operator professional and RPGIV programmer. Exams are administered by Prometric for a moderate fee The certificate is issued by IBM and carries the IBM seal.

## APPLICATION DEVELOPMENT PROGRAMMER: AS/400 CERTIFICATE (ADPC)

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| MAT | 1124 | Business Algebra | 4 | 0 | 4 |
| IT | 5201 | Information Technology Concepts | 2 | 3 | 3 |
| IT | 5206 | Programming Logic and BASIC | 4 | 6 | 6 |
| IT | 5230 | Introduction to Computer Operations | 2 | 3 | 3 |
| IT | 5231 | Operating Systems: DOS/Windows 1 | 2 | 3 | 3 |
| IT | 5233 | Operating Systems: AS/400 1 | 2 | 3 | 3 |
| IT | 5234 | Operating Systems: AS/400 2 | 2 | 3 | 3 |
| IT | 5240 | Advanced Facilities: AS/400 | 4 | 6 | 6 |
| IT | 5241 | Applications: AS/400 | 2 | 3 | 3 |
| IT | 5261 | RPG 400 1 | 4 | 6 | 6 |
| IT | 5262 | RPG 400 2 | 3 | 6 | 5 |
| | | | 31 | 42 | 45 |
| | | | | | 45 |

At the conclusion of these courses, the student should be eligible to take the IBM Certification test for AS/400 Application Development.

## COMPUTER OPERATIONS: AS/400 CERTIFICATE (CPOC)

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| IT | 5201 | Information Technology Concepts | 2 | 3 | 3 |
| IT | 5230 | Introduction to Computer Operations | 2 | 3 | 3 |
| IT | 5231 | Operating Systems: DOS/Windows 1 | 2 | 3 | 3 |
| IT | 5240 | Advanced Facilities: AS/400 | 4 | 6 | 6 |
| IT | 5241 | Applications: AS/400 | 2 | 3 | 3 |
| | | | 12 | 18 | 18 |
| | | | | | 18 |

At the conclusion of these courses, the student should be eligible to take the IBM Certification test for AS/400 Associate Systems Operator.

## Database Management Systems Technology (DBMS)

The Database Management Systems degree prepares students to design , program and administer the systems of eBusiness and eCommerce on the World Wide Web. Job titles for graduates include Senior Database Systems Programmer/Analyst, Senior Information Technology Programmer/Analyst.

## DATABASE MANAGEMENT SYSTEMS TECHNOLOGY

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| OT | 1863 | Electronic Spreadsheets (Excel) | 2 | 2 | 3 |
| IT | 5201 | Information Technology Concepts | 2 | 3 | 3 |
| IT | 5206 | Programming Logic and BASIC | 4 | 6 | 6 |
| BT | 9200 | Professional Practices | 1 | 0 | 1 |
| | | | 12 | 11 | 16 |
| **SECOND TERM** | | | | | |
| IT | 5291 | Visual BASIC 1 | 2 | 3 | 3 |
| IT | 9500 | Cooperative Education - Information Technologies (Alternating) | 1 | 40 | 2 |
| | | | 3 | 43 | 5 |
| **THIRD TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| OT | 3068 | Database Management: Access | 2 | 3 | 3 |
| IT | 5292 | Visual BASIC 2 | 2 | 3 | 3 |
| IT | 5321 | Database Programming & Administration1: SQL Server | 2 | 3 | 3 |
| IT | 5453 | Web Development 1: HTML | 2 | 3 | 3 |
| | | | 11 | 12 | 15 |
| **FOURTH TERM** | | | | | |
| ISOC | 1521 | Introduction to Sociology 1 | 3 | 0 | 3 |
| IT | 9500 | Cooperative Education - Information Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 40 | 5 |
| **FIFTH TERM** | | | | | |
| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| MAT | 1124 | Business Algebra | 4 | 0 | 4 |
| IT | 5293 | Visual BASIC 3 | 2 | 3 | 3 |
| IT | 5322 | Database Programming & Administration 2: SQL Server | 2 | 3 | 3 |
| IT | 5331 | Internet Programming : VBScript | 2 | 3 | 3 |
| | | | 13 | 9 | 16 |
| **SIXTH TERM** | | | | | |
| PSY | 1505 | Introduction to Psychology 1 | 3 | 0 | 3 |
| IT | 9500 | Cooperative Education - Information Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 40 | 5 |
| **SEVENTH TERM** | | | | | |
| IT | 5151 | Network Communications 1 | 2 | 3 | 3 |
| IT | 5281 | Visual C++ 1 | 3 | 3 | 4 |
| IT | 5323 | Database Programming & Administration 3: Oracle | 2 | 3 | 3 |
| IT | 5332 | Internet Programming: JavaScript | 2 | 3 | 3 |
| IT | 5361 | DBMS Design Project 1 | 2 | 3 | 3 |
| | | | 11 | 15 | 16 |
| **EIGHTH TERM** | | | | | |
| ECO | 1512 | Microeconomics | 3 | 0 | 3 |
| IT | 5362 | DBMS Design Project 2 | 2 | 3 | 3 |
| IT | 9500 | Cooperative Education - Information Technologies (Alternating) | 1 | 40 | 2 |
| | | | 6 | 43 | 8 |
| **NINTH TERM** | | | | | |
| MAT | 1111 | Statistics 1 | 3 | 0 | 3 |
| IT | 5282 | Visual C++ 2 | 3 | 3 | 4 |
| IT | 5324 | Database Programming & Administratio 4: Oracle | 2 | 3 | 3 |
| IT | 5333 | Internet Programming: XML | 2 | 3 | 3 |
| IT | 5363 | DBMS Design Project 3 | 2 | 3 | 3 |
| | | | 12 | 12 | 16 |
| **TENTH TERM** | | | | | |
| SPE | 1020 | Public Speaking | 3 | 0 | 3 |
| IT | 9500 | Cooperative Education - Information Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 40 | 5 |
| | | | | | 107 |

## Database Management Systems Technology – Database Administration Major (DBA)

The Database Administration major prepares students to design and administer the systems of eBusiness and eCommerce on the World Wide Web. Job titles for graduates include Senior Database Administrator and Internet Database Administrator (eDBA).

## DATABASE MANAGEMENT SYSTEMS TECHNOLOGY - ADMINISTRATION MAJOR

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| OT | 1863 | Electronic Spreadsheets (Excel) | 2 | 2 | 3 |
| IT | 5201 | Information Technology Concepts | 2 | 3 | 3 |
| IT | 5206 | Programming Logic and BASIC | 4 | 6 | 6 |
| BT | 9200 | Professional Practices | 1 | 0 | 1 |
| | | | 12 | 11 | 16 |
| **SECOND TERM** | | | | | |
| IT | 5291 | Visual BASIC 1 | 2 | 3 | 3 |
| IT | 9500 | Cooperative Education - Information Technologies (Alternating) | 1 | 40 | 2 |
| | | | 3 | 43 | 5 |
| **THIRD TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| ACC | 2911 | Principles of Accounting 1 | 3 | 2 | 4 |
| OT | 3068 | Database Management: Access | 2 | 3 | 3 |
| IT | 5321 | Database Programming & Administration1: SQL Server | 2 | 3 | 3 |
| IT | 5453 | Web Development 1: HTML | 2 | 3 | 3 |
| | | | 12 | 11 | 16 |
| **FOURTH TERM** | | | | | |
| SOC | 1521 | Introduction to Sociology 1 | 3 | 0 | 3 |
| IT | 9500 | Cooperative Education - Information Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 40 | 5 |
| **FIFTH TERM** | | | | | |
| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| MAT | 1124 | Business Algebra | 4 | 0 | 4 |
| ACC | 2912 | Principles of Accounting 2 | 4 | 0 | 4 |
| IT | 5322 | Database Programming & Administration 2: SQL Server | 2 | 3 | 3 |
| IT | 5331 | Internet Programming : VBScript | 2 | 3 | 3 |
| | | | 15 | 6 | 17 |
| **SIXTH TERM** | | | | | |
| PSY | 1505 | Introduction to Psychology 1 | 3 | 0 | 3 |
| IT | 9500 | Cooperative Education - Information Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 40 | 5 |
| **SEVENTH TERM** | | | | | |
| ACC | 2913 | Principles of Accounting 3 | 4 | 0 | 4 |
| IT | 5151 | Network Communications 1 | 2 | 3 | 3 |
| IT | 5323 | Database Programming & Administration 3: Oracle | 2 | 3 | 3 |
| IT | 5332 | Internet Programming: JavaScript | 2 | 3 | 3 |
| IT | 5371 | DBA Design Project 1 | 2 | 3 | 3 |
| | | | 12 | 12 | 16 |
| **EIGHTH TERM** | | | | | |
| ECO | 1512 | Microeconomics | 3 | 0 | 3 |
| IT | 5372 | DBA Design Project 2 | 2 | 3 | 3 |
| IT | 9500 | Cooperative Education - Information Technologies (Alternating) | 1 | 40 | 2 |
| | | | 6 | 43 | 8 |
| **NINTH TERM** | | | | | |
| MAT | 1111 | Statistics 1 | 3 | 0 | 3 |
| ACC | 2922 | Computerized Accounting Applications | 2 | 2 | 3 |
| IT | 5324 | Database Programming & Administratio 4: Oracle | 2 | 3 | 3 |
| IT | 5333 | Internet Programming: XML | 2 | 3 | 3 |
| IT | 5373 | DBA Design Project 3 | 2 | 3 | 3 |
| | | | 11 | 11 | 15 |
| **TENTH TERM** | | | | | |
| SPE | 1020 | Public Speaking | 3 | 0 | 3 |
| IT | 9500 | Cooperative Education - Information Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 40 | 5 |
| | | | | | 108 |

## PC Support and Administration (PCSA)

PC Support and Administration students develop skills needed to install, set up, troubleshoot and maintain hardware and software for microcomputers. Students gain knowledge of operating systems, data communications, and networking technologies, and gain skills needed for technical support center management. Job titles for PCSA graduates include PC Support Technician, Technical Support Representative and PC System Coordinator.

## PC SUPPORT AND ADMINISTRATION TECHNOLOGY

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| MAT | 1171 | Technical Mathematics 1 | 4 | 0 | 4 |
| IT | 5201 | Information Technology Concepts | 2 | 3 | 3 |
| IT | 5231 | Operating Systems: DOS/Windows 1 | 2 | 3 | 3 |
| EET | 7780 | Computer Repair: General Systems | 2 | 3 | 3 |
| BT | 9200 | Professional Practices | 1 | 0 | 1 |
| | | | 14 | 9 | 17 |
| **SECOND TERM** | | | | | |
| EET | 7701 | Electronic Fundamentals 1 | 3 | 2 | 4 |
| IT | 9500 | Cooperative Education - Information Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 42 | 6 |
| **THIRD TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| MAT | 1172 | Technical Mathematics 2 | 4 | 0 | 4 |
| IT | 5206 | Programming Logic and BASIC | 4 | 6 | 6 |
| IT | 5232 | Operating Systems: DOS/Windows 2 | 2 | 3 | 3 |
| EET | 7781 | Computer Repair: Advanced Systems | 2 | 3 | 3 |
| | | | 15 | 12 | 19 |
| **FOURTH TERM** | | | | | |
| EET | 7702 | Electronic Fundamentals 2 | 3 | 2 | 4 |
| IT | 9500 | Cooperative Education - Information Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 42 | 6 |
| **FIFTH TERM** | | | | | |
| SOC | 1521 | Introduction to Sociology 1 | 3 | 0 | 3 |
| OT | 1863 | Electronic Spreadsheets (Excel) | 2 | 2 | 3 |
| IT | 5131 | Network Management/Help Desk | 3 | 2 | 4 |
| IT | 5208 | PC Software Support | 3 | 2 | 4 |
| IT | 5211 | Data Communications 1 | 2 | 3 | 3 |
| | | | 13 | 9 | 17 |
| **SIXTH TERM** | | | | | |
| PSY | 1505 | Introduction to Psychology 1 | 3 | 0 | 3 |
| IT | 9500 | Cooperative Education - Information Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 40 | 5 |
| **SEVENTH TERM** | | | | | |
| OT | 3068 | Database Management: Access | 2 | 3 | 3 |
| IT | 5120 | LAN Administration: Novell | 3 | 2 | 4 |
| IT | 5212 | Data Communications 2 | 3 | 2 | 4 |
| IT | 5453 | Web Development 1: HTML | 2 | 3 | 3 |
| | | | 10 | 10 | 14 |
| **EIGHTH TERM** | | | | | |
| ECO | 1512 | Microeconomics | 3 | 0 | 3 |
| IT | 9500 | Cooperative Education - Information Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 40 | 5 |
| **NINTH TERM** | | | | | |
| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| IT | 5121 | LAN Administration: Windows NT | 3 | 2 | 4 |
| IT | 5207 | Systems Analysis and Design | 2 | 3 | 3 |
| IT | 5291 | Visual BASIC 1 | 2 | 3 | 3 |
| IT | 5340 | PCSA Design Project | 2 | 3 | 3 |
| | | | 12 | 11 | 16 |

| | | | | | |
|---|---|---|---|---|---|
| **TENTH TERM** | | | | | |
| SPE | 1020 | Public Speaking | 3 | 0 | 3 |
| IT | 9500 | Cooperative Education - Information Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 40 | 5 |
| | | | | | 110 |

## Multimedia Information Design Area

The Multimedia Information Design area includes programs in Audio/Video Production, Computer Graphics, Technical Communication, and Web Design. Students gain skills needed to create and produce digitally-generated or computer-enhanced media products used in business, education, entertainment, communication, and various other fields. The Multimedia Information Design area also offers two certificate programs, in Desktop Publishing and in Technical Communication.

Students seeking admission to programs in the Multimedia Information Design area must demonstrate competency in keyboarding (minimum 30 words per minute) and must be proficient with some commonly-used software applications and basic Internet operations. Students may be asked to demonstrate these competencies through standardized skills assessment tests or by completing prerequisite courses, if necessary. Program advisors will assist students in determining if minimum competencies have been met.

## Audio/Video Production Technology (AVP)

Students seeking the Audio/Video Production degree gain skills required to support production of sound and motion media products, using conventional and Web-based delivery methods.

Job titles for graduates include Audio Video Specialist, Production Assistant, Videographer, Audio Technician, Video Technician, Audio or Video Engineer.

## AUDIO/VIDEO PRODUCTION TECHNOLOGY

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| MAT | 1124 | Business Algebra | 4 | 0 | 4 |
| CULT | 1680 | Introduction to Film Studies 1 | 3 | 0 | 3 |
| TC | 5010 | Visual Literacy | 2 | 2 | 3 |
| IT | 5201 | Information Technology Concepts | 2 | 3 | 3 |
| IT | 5410 | Cross-Platform Computer Systems and Applications | 2 | 2 | 3 |
| BT | 9200 | Professional Practices | 1 | 0 | 1 |
| | | | 17 | 7 | 20 |
| **SECOND TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| TC | 5020 | Usability Assessment | 2 | 2 | 3 |
| IT | 5453 | Web Development 1: HTML | 2 | 3 | 3 |
| IT | 5420 | Digital Media Concepts | 2 | 3 | 3 |
| CULT | 1646 | Mass Media and Culture | 3 | 0 | 3 |
| IT | 5221 | Introduction to Film Production | 2 | 3 | 3 |
| | | | 14 | 11 | 18 |
| **THIRD TERM** | | | | | |
| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| IT | 5222 | Audio Production/Editing 1 | 3 | 4 | 5 |
| IT | 5224 | Video Production/Editing 1 | 3 | 4 | 5 |
| IT | 5453 | Web Development 1: HTML | 2 | 3 | 3 |
| | | | 11 | 11 | 16 |
| **FOURTH TERM** | | | | | |
| IT | 9500 | Cooperative Education - Information Technologies (Alternating) | 1 | 40 | 2 |
| **FIFTH TERM** | | | | | |
| ART | 1692 | Design 1 | 2 | 2 | 3 |
| MKT | 2903 | Introduction to Marketing | 3 | 0 | 3 |
| TC | 5020 | Usability Assessment | 2 | 2 | 3 |
| IT | 5223 | Audio Production/Editing 2 | 3 | 4 | 5 |
| IT | 5225 | Video Production/Editing 2 | 3 | 4 | 5 |
| | | | 13 | 12 | 19 |
| **SIXTH TERM** | | | | | |
| IT | 9500 | Cooperative Education - Information Technologies (Alternating) | 1 | 40 | 2 |
| **SEVENTH TERM** | | | | | |
| SPE | 1024 | Group Dynamics & Problem Solving | 3 | 0 | 3 |
| IT | 5442 | Graphics Tools: Flash | 2 | 3 | 3 |
| IT | 54XX | Authoring Tools Elective | 2 | 3 | 3 |
| | | | 7 | 6 | 9 |
| **EIGHTH TERM** | | | | | |
| IT | 9500 | Cooperative Education - Information Technologies (Alternating) | 1 | 40 | 2 |
| **NINTH TERM** | | | | | |
| MGT | 2996 | Project Management | 2 | 2 | 3 |
| IT | 5226 | Gripping Techniques | 3 | 4 | 5 |
| IT | 5227 | Lighting Techniques | 3 | 4 | 5 |
| IT | 5451 | Animation Tools: Maya 1 | 3 | 4 | 5 |
| | | | 11 | 14 | 18 |
| **TENTH TERM** | | | | | |
| IT | 5228 | Audio/Video Project | 2 | 8 | 5 |
| IT | 5229 | Audio/Video/Film Seminar | 2 | 0 | 2 |
| | | | 4 | 8 | 7 |
| | | | | | 110 |

Computer skills competencies required for program admittance:
- Keyboarding skill of minimum 20 wpm
- Ability to use application software

Authoring Tools Elective: IT 5432, IT 5433.

## Computer Graphics Technology (CGT)

The Computer Graphics degree prepares students for employment opportunities that require aptitude in art combined with skill using computer software to create visual images. Students develop skills needed to create and produce graphics for Web-delivered products as well as other media formats.

## COMPUTER GRAPHICS TECHNOLOGY

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| MAT | 1124 | Business Algebra | 4 | 0 | 4 |
| ART | 1690 | Drawing 1 | 2 | 2 | 3 |
| TC | 5010 | Visual Literacy | 2 | 2 | 3 |
| IT | 5201 | Information Technology Concepts | 2 | 3 | 3 |
| IT | 5410 | Cross-Platform Computer Systems and Applications | 2 | 2 | 3 |
| BT | 9200 | Professional Practices | 1 | 0 | 1 |
| | | | 16 | 9 | 20 |
| **SECOND TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| ART | 1692 | Design 1 | 2 | 2 | 3 |
| TC | 5020 | Usability Assessment | 2 | 2 | 3 |
| IT | 5420 | Digital Media Concepts | 2 | 3 | 3 |
| IT | 5441 | Graphics Tools: Photoshop 1 | 2 | 3 | 3 |
| IT | 5453 | Web Development 1: HTML | 2 | 3 | 3 |
| | | | 13 | 13 | 18 |

| | | | | | |
|---|---|---|---|---|---|
| **THIRD TERM** | | | | | |
| IT | 9500 | Cooperative Education - Information Technologies (Alternating) | 1 | 40 | 2 |
| **FOURTH TERM** | | | | | |
| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| CULT | 1646 | Mass Media and Culture | 3 | 0 | 3 |
| IT | 5221 | Introduction to Video Production | 2 | 3 | 3 |
| IT | 5444 | Graphics Tools: Photoshop 2 | 2 | 3 | 3 |
| IT | 544X | Graphics Tools (Vector) Elective | 2 | 3 | 3 |
| IT | 5456 | Desktop Publishing: QuarkXPress | 2 | 3 | 3 |
| | | | 14 | 12 | 18 |
| **FIFTH TERM** | | | | | |
| MGT | 2996 | Project Management | 2 | 2 | 3 |
| IT | 9500 | Cooperative Education - Information Technologies (Alternating) | 1 | 40 | 2 |
| | | | 3 | 42 | 5 |
| **SIXTH TERM** | | | | | |
| IT | 5224 | Video Production/Editing 1 | 3 | 4 | 5 |
| IT | 5442 | Graphics Tools: Flash | 2 | 3 | 3 |
| IT | 5451 | Animation Tools: Maya 1 | 3 | 4 | 5 |
| | | | 8 | 11 | 13 |
| **SEVENTH TERM** | | | | | |
| SPE | 1024 | Group Dynamics & Problem Solving | 3 | 0 | 3 |
| IT | 9500 | Cooperative Education - Information Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 40 | 5 |
| **EIGHTH TERM** | | | | | |
| ART | 1691 | Drawing 2 | 2 | 2 | 3 |
| MKT | 2903 | Introduction to Marketing | 3 | 0 | 3 |
| TC | 5033 | Developing Promotional Materials | 3 | 2 | 4 |
| IT | 543X | Authoring Tools Elective | 2 | 3 | 3 |
| IT | 5452 | Animation Tools: Maya 2 | 3 | 3 | 4 |
| | | | 13 | 10 | 17 |
| **NINTH TERM** | | | | | |
| IT | 9500 | Cooperative Education - Information Technologies (Alternating) | 1 | 40 | 2 |
| | XXXX | Humanities/Social Science Elective | 3 | 0 | 3 |
| | | | 4 | 40 | 5 |
| **TENTH TERM** | | | | | |
| ACC | 29XX | Accounting Elective | 3 | 0 | 3 |
| IT | 5571 | Computer Graphics Design Project | 3 | 3 | 4 |
| | | | 6 | 3 | 7 |
| | | | | | 110 |

Computer skills competencies required for program admittance:
- Keyboarding skill of minimum 20 wpm
- Ability to use application software

Graphics Tools (Vector) Elective: IT 5443, IT 5445
Authoring Tools Elective: IT 5432, IT 5433
Humanities/Social Science Elective: Any PSY, SOC, ECO, HST, GEO, LBR
Accounting Elective: ACC 2911, ACC 2924

## Technical Communication Technology (TCT)

Technical Communication students prepare for a variety of assignments that emphasize using writing and editing skills to prepare technical, scientific, or specialized information products for a wide range of audiences. Students gain skill designing, developing, and producing information products for conventional print media as well as Web-based media.

Technical Communication students are required to earn a minimum of 15 credits in a designated technical specialty area, which is comparable to a "minor" within the Technical Communication major. The technical specialty courses are determined through consultation with the program chair, and should be related to the student's employment goals.

Job titles for graduates include Technical Writer or Editor, Multimedia Specialist, Technical Publication Specialist, Web Content Designer or Project Manager.

## TECHNICAL COMMUNICATION TECHNOLOGY

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| MAT | 1124 | Business Algebra | 4 | 0 | 4 |
| TC | 5001 | Introduction to Communication Careers | 2 | 0 | 2 |
| TC | 5010 | Visual Literacy | 2 | 2 | 3 |
| IT | 5410 | Cross-Platform Computer Systems and Applications | 2 | 2 | 3 |
| | | | 13 | 4 | 15 |
| **SECOND TERM** | | | | | |
| ENG | 1018 | Professional Writing Styles 1 | 2 | 2 | 3 |
| SPE | 1024 | Group Dynamics & Problem Solving | 3 | 0 | 3 |
| CULT | 1646 | Mass Media and Culture | 3 | 0 | 3 |
| IT | 5201 | Information Technology Concepts | 2 | 3 | 3 |
| IT | 5420 | Digital Media Concepts | 2 | 3 | 3 |
| | XXXX | Desktop Publishing Elective | 2 | 3 | 3 |
| | | | 14 | 11 | 18 |
| **THIRD TERM** | | | | | |
| ENG | 1017 | Research and Composition | 2 | 2 | 3 |
| ENG | 1019 | Professional Writing Styles 2 | 2 | 2 | 3 |
| TC | 5020 | Usability Assessment | 2 | 2 | 3 |
| IT | 5453 | Web Development 1: HTML | 2 | 3 | 3 |
| | XXXX | Graphics Tools Elective | 2 | 3 | 3 |
| | XXXX | Database Elective | 2 | 3 | 3 |
| | | | 12 | 15 | 18 |
| **FOURTH TERM** | | | | | |
| MGT | 2996 | Project Management | 2 | 2 | 3 |
| TC | 5032 | Developing Instructional Materials | 3 | 2 | 4 |
| TC | 5041 | Technical Editing Methods 1 | 2 | 2 | 3 |
| | XXXX | Technical Specialty Elective | 2 | 3 | 3 |
| | XXXX | Humanities/Social Science Elective | 3 | 0 | 3 |
| | | | 12 | 9 | 16 |
| **FIFTH TERM** | | | | | |
| IT | 9500 | Cooperative Education - Information Technologies (Alternating) | 1 | 40 | 2 |
| **SIXTH TERM** | | | | | |
| MKT | 2903 | Introduction to Marketing | 3 | 0 | 3 |
| TC | 5033 | Developing Promotional Materials | 3 | 2 | 4 |
| TC | 5042 | Technical Editing Methods 2 | 2 | 2 | 3 |
| | XXXX | Technical Specialty Elective | 2 | 3 | 3 |
| | XXXX | Humanities/Social Science Elective | 3 | 0 | 3 |
| | | | 13 | 7 | 16 |
| **SEVENTH TERM** | | | | | |
| IT | 9500 | Cooperative Education - Information Technologies (Alternating) | 1 | 40 | 2 |
| **EIGHTH TERM** | | | | | |
| TC | 5071 | Technical Communication Project | 3 | 2 | 4 |
| | XXXX | Technical Specialty Elective | 2 | 3 | 3 |
| | XXXX | Technical Communication Elective | 2 | 2 | 3 |
| | | | 7 | 7 | 10 |
| **NINTH TERM** | | | | | |
| IT | 9500 | Cooperative Education - Information Technologies (Alternating) | 1 | 40 | 2 |
| **TENTH TERM** | | | | | |
| TC | 5089 | Technical Communication Seminar: Portfolio Presentation | 2 | 3 | 3 |
| | XXXX | Technical Specialty Elective | 2 | 3 | 3 |
| | XXXX | Technical Specialty Elective | 2 | 3 | 3 |
| | | | 6 | 9 | 9 |
| | | | | | 108 |

Computer skills competencies required for program admittance:
- Keyboarding skill of minimum 20 wpm

- Ability to use application software

Composition Requirement: Students whose test scores or previous experience indicate advanced standing may substitute another composition course. Recommended substitute: ENG 1003.

Humanities/Social Science Elective: Any PSY, SOC, ECO, HST, GEO, LBR

Desktop Publishing Elective: IT 5116, IT 5456, GC 1422

Graphics Tools Elective: IT 5441, IT 5443, IT 5445

Database Elective: OT 3068, IT 5106, IT 5321

Technical Communication Elective: TC 5022, TC 5037. Other courses may be substituted with program chair consent.

Technical Specialty Elective: Program chair consent required. The technical elective component must total no less than 15 credit hours.

## Technical Communication Certificate (TCC)

The Technical Communication certificate is intended for individuals already competent in technical fields who want to expand their communication skills and for professional communicators who want to enhance their technical expertise. Along with the core certificate courses, students must earn a minimum of 15 credits in a designated technical specialty area. The technical specialty courses are determined through consultation with the program chair, and should be related to the student's career and educational goals.

## TECHNICAL COMMUNICATION CERTIFICATE

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| ENG | 1018 | Professional Writing Styles 1 | 2 | 2 | 3 |
| ENG | 1019 | Professional Writing Styles 2 | 2 | 2 | 3 |
| TC | 5010 | Visual Literacy | 2 | 2 | 3 |
| TC | 5020 | Usability Assessment | 2 | 2 | 3 |
| TC | 5032 | Developing Instructional Materials | 3 | 2 | 4 |
| TC | 5033 | Developing Promotional Materials | 3 | 2 | 4 |
| TC | 5041 | Technical Editing Methods 1 | 2 | 2 | 3 |
| TC | 5042 | Technical Editing Methods 2 | 2 | 2 | 3 |
| TC | 5071 | Technical Communication Project | 3 | 2 | 4 |
| TC | 5089 | Technical Communication Seminar: Portfolio Presentation | 2 | 3 | 3 |
| | XXXX | Technical Specialty | 0 | 0 | 15 |
| | | | 23 | 21 | 48 |
| | | | | | 48 |

Computer skills competencies required for program admittance:

- Keyboarding skill of minimum 20 wpm
- Ability to use application software

Composition Requirement: Students whose test scores indicate need for additional preparation may be required to complete additional composition courses.

Technical Specialty Requirement: Program chair consent required. The technical specialty component must total no less than 15 credit hours.

## Desktop Publishing Certificate (DTPC)

The Desktop Publishing Certificate is designed for individuals who want to develop skill using many application software programs used in communication and publishing-related fields. The certificate program is intended to help individuals who want to add contemporary computer skills to their current knowledge in a business- or communication-related area, or to provide information for those who may be considering starting a home-based desktop publishing business. The program also could provide a foundation for pursuing an Associate degree in a communication- or business-related field.

## DESKTOP PUBLISHING CERTIFICATE

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| ENG | 1018 | Professional Writing Styles 1 | 2 | 2 | 3 |
| TC | 5010 | Visual Literacy | 2 | 2 | 3 |
| IT | 5201 | Information Technology Concepts | 2 | 3 | 3 |
| IT | 5410 | Cross-Platform Computer Systems and Applications | 2 | 2 | 3 |
| | | | 8 | 9 | 12 |
| **SECOND TERM** | | | | | |
| OT | 3064 | Business Presentation Graphics | 2 | 3 | 3 |
| IT | 5420 | Digital Media Concepts | 2 | 3 | 3 |
| IT | 5441 | Graphics Tools: Photoshop 1 | 2 | 3 | 3 |
| IT | 5456 | Desktop Publishing: QuarkXPress | 2 | 3 | 3 |
| IT | XXXX | Database Elective | 2 | 3 | 3 |
| | | | 10 | 15 | 15 |
| **THIRD TERM** | | | | | |
| TC | 5020 | Usability Assessment | 2 | 2 | 3 |
| IT | 5443 | Graphics Tools: Illustrator | 2 | 3 | 3 |
| IT | 5453 | Web Development 1: HTML | 2 | 3 | 3 |
| IT | XXXX | Desktop Publishing Elective | 2 | 3 | 3 |
| | | | 8 | 11 | 12 |
| **FOURTH TERM** | | | | | |
| TC | 5037 | Writing and Designing Newsletters | 2 | 2 | 3 |
| IT | XXXX | Graphics Tools Elective | 2 | 3 | 3 |
| IT | XXXX | Computer Applications Elective | 2 | 3 | 3 |
| | XXXX | Business Skills Elective | 2 | 2 | 3 |
| | | | 8 | 10 | 12 |
| | | | | | 51 |

Computer skills competencies required for program admittance:

- Keyboarding skill of minimum of 20 wpm
- Ability to use application software

Composition Requirement: Students whose test scores indicate need for additional preparation may be required to complete additional composition courses.

Database Elective: OT 3068, IT 5106

Desktop Publishing Elective: IT 5116, GC 1422

Business Skills Elective: Program chair consent required. Must be a course in business concepts, not a computer applications course.

Graphics Tools Elective: Program chair consent required. Recommended: IT 5443, IT 5445

Computer Applications Elective: Program chair consent required.

## Web Design Technology (WEB)

Students develop proficiency using HTML and other industry-standard languages required for website development, and gain knowledge of diverse computer software used to prepare and integrate text, images, and other content into effective Web-based products. The Web Design program prepares students for a range of responsibilities associated with designing, developing, testing, and maintaining Internet websites.

## WEB DESIGN TECHNOLOGY

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| MAT | 1124 | Business Algebra | 4 | 0 | 4 |
| TC | 5010 | Visual Literacy | 2 | 2 | 3 |
| IT | 5201 | Information Technology Concepts | 2 | 3 | 3 |
| IT | 5410 | Cross-Platform Computer Systems and Applications | 2 | 2 | 3 |
| | | | 13 | 7 | 16 |
| **SECOND TERM** | | | | | |
| ENG | 1017 | Research and Composition | 2 | 2 | 3 |
| IT | 5206 | Programming Logic and BASIC | 4 | 6 | 6 |
| IT | 5441 | Graphics Tools: Photoshop 1 | 2 | 3 | 3 |
| IT | 5453 | Web Development 1: HTML | 2 | 3 | 3 |
| BT | 9200 | Professional Practices | 1 | 0 | 1 |
| | | | 11 | 14 | 16 |
| **THIRD TERM** | | | | | |
| IT | 9500 | Cooperative Education - Information Technologies (Alternating) | 1 | 40 | 2 |
| **FOURTH TERM** | | | | | |
| ENG | 1019 | Professional Writing Styles 2 | 2 | 2 | 3 |
| CULT | 1646 | Mass Media and Culture | 3 | 0 | 3 |
| TC | 5020 | Usability Assessment | 2 | 2 | 3 |
| IT | 5420 | Digital Media Concepts | 2 | 3 | 3 |
| IT | 5454 | Web Development 2: JavaScript | 2 | 3 | 3 |
| | | | 11 | 10 | 15 |
| **FIFTH TERM** | | | | | |
| MGT | 2996 | Project Management | 2 | 2 | 3 |
| IT | 9500 | Cooperative Education - Information Technologies (Alternating) | 1 | 40 | 2 |
| | | | 3 | 42 | 5 |
| **SIXTH TERM** | | | | | |
| TC | 5032 | Developing Instructional Materials | 3 | 2 | 4 |
| TC | 5041 | Technical Editing Methods 1 | 2 | 2 | 3 |
| IT | 5431 | Authoring Tools: Dreamweaver | 2 | 3 | 3 |
| IT | 5442 | Graphics Tools: Flash | 2 | 3 | 3 |
| | XXXX | Humanities/Social Science Elective | 3 | 0 | 3 |
| | | | 12 | 10 | 16 |
| **SEVENTH TERM** | | | | | |
| SPE | 1024 | Group Dynamics & Problem Solving | 3 | 0 | 3 |
| IT | 9500 | Cooperative Education - Information Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 40 | 5 |
| **EIGHTH TERM** | | | | | |
| MKT | 2903 | Introduction to Marketing | 3 | 0 | 3 |
| TC | 5033 | Developing Promotional Materials | 3 | 2 | 4 |
| IT | 5432 | Authoring Tools: Director | 2 | 3 | 3 |
| IT | 5455 | Web Development 3: Advanced Topics | 2 | 3 | 3 |
| | XXXX | Database Elective | 2 | 3 | 3 |
| | | | 12 | 11 | 16 |
| **NINTH TERM** | | | | | |
| ACC | 29XX | Accounting Elective | 3 | 0 | 3 |
| IT | 5457 | Web Design Project | 3 | 2 | 4 |
| IT | 5458 | Web Development 4: Scripting Languages | 2 | 3 | 3 |
| | XXXX | Humanities/Social Science Elective | 3 | 0 | 3 |
| IT | XXXX | Programming Elective | 2 | 3 | 3 |
| | | | 13 | 8 | 16 |
| **TENTH TERM** | | | | | |
| IT | 9500 | Cooperative Education - Information Technologies (Alternating) | 1 | 40 | 2 |
| | | | 1 | 40 | 2 |
| | | | | | 109 |

Computer skills competencies required for program admittance:
- Keyboarding skill of minimum 20 wpm
- Ability to use application software

Humanities/Social Science Elective: Any PSY, SOC, ECO, HST, GEO, LBR

Database Elective: OT 3068, IT 5321
Accounting Elective: ACC 2911, ACC 2924
Programming Elective: Program chair consent required.

## Network Systems Area

The Network Systems area includes three programs: Computer Network Engineering Technology, Network Administration, and Telecommunications Engineering Technology. Students can choose an emphasis in network hardware, network software, network administration, or telecommunications.

## Computer Network Engineering Technology (CNET)

The Computer Network Engineering Technology program prepares students to work with computer networking hardware. Students develop skills required to assist in computer network design, system installation, and computer network maintenance and repair. Job titles for CNET graduates include Network Technician, Electronics Technician, Network Consultant, Hardware Engineering Technician, Technical Support Specialist, QA Technician, Software Technician and Field Service Technician.

The Computer Network Engineering Technology program is accredited by TAC/ABET.

## COMPUTER NETWORK ENGINEERING TECHNOLOGY

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| MAT | 1191 | Algebra and Trigonometry 1 | 3 | 2 | 4 |
| IT | 5201 | Information Technology Concepts | 2 | 3 | 3 |
| EET | 7710 | DC Circuit Analysis | 5 | 0 | 5 |
| EET | 7711 | DC Circuits Lab | 0 | 3 | 1 |
| CPET | 7728 | Digital Combinational Logic | 3 | 2 | 4 |
| BT | 9200 | Professional Practices | 1 | 0 | 1 |
| | | | 14 | 10 | 18 |
| **SECOND TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| IT | 9500 | Cooperative Education - Information Technologies (Alternating) | 1 | 40 | 2 |
| | XXXX | Humanities/Social Science Elective | 3 | 0 | 3 |
| | | | 7 | 40 | 8 |
| **THIRD TERM** | | | | | |
| MAT | 1192 | Algebra and Trigonometry 2 | 4 | 0 | 4 |
| EET | 7716 | Computer Calculations for Electronics | 3 | 3 | 4 |
| EET | 7720 | AC Circuit Analysis | 5 | 0 | 5 |
| EET | 7721 | AC Circuits Lab | 0 | 3 | 1 |
| CPET | 7738 | Digital Sequential Logic | 3 | 3 | 4 |
| | | | 15 | 9 | 18 |
| **FOURTH TERM** | | | | | |
| PHY | 2291 | Physics 1 (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| IT | 9500 | Cooperative Education - Information Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 42 | 6 |
| **FIFTH TERM** | | | | | |
| PHY | 2292 | Physics 2 (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| IT | 5151 | Network Communications 1 | 2 | 3 | 3 |
| EET | 7730 | Electronics 1 | 5 | 2 | 6 |
| CPET | 7748 | Microprocessor Systems 1 | 3 | 3 | 4 |
| CPET | 7757 | Digital Communications | 3 | 2 | 4 |
| | | | 16 | 12 | 21 |

| | | | | | |
|---|---|---|---|---|---|
| **SIXTH TERM** | | | | | |
| MAT | 1154 | Calculus 1 | 5 | 0 | 5 |
| IT | 9500 | Cooperative Education - Information Technologies (Alternating) | 1 | 40 | 2 |
| | | | 6 | 40 | 7 |
| **SEVENTH TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| SPE | 102X | Speech Elective | 3 | 0 | 3 |
| IT | 5152 | Network Communications 2 | 2 | 3 | 3 |
| IT | 5453 | Web Development 1: HTML | 2 | 3 | 3 |
| CPET | 7768 | Microprocessor Systems 2 | 3 | 3 | 4 |
| | | | 13 | 9 | 16 |
| **EIGHTH TERM** | | | | | |
| PHI | 1625 | Ethics | 3 | 0 | 3 |
| IT | 9500 | Cooperative Education - Information Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 40 | 5 |
| **NINTH TERM** | | | | | |
| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| PHY | 2293 | Physics 3 (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| IT | 5153 | Network Communciations 3 | 2 | 3 | 3 |
| | XXXX | Technical Elective | 3 | 2 | 4 |
| | | | 11 | 7 | 14 |
| **TENTH TERM** | | | | | |
| ECO | 15XX | Economics Elective | 3 | 0 | 3 |
| IT | 9500 | Cooperative Education - Information Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 40 | 5 |
| | | | | | 118 |

Technical Elective: IT 5120, IT 5121, EET 7740, EET 7742, TET 7743
Speech Elective: SPE 1020, SPE 1022, SPE 1024
Economics Elective: ECO 1512, ECO 1513
Humanities/Social Science Elective: Any PSY, SOC, ECO, LBR, HST, GEO

## Network Administration Technology (NETAD)

Network Administration students are prepared for careers dealing with network systems analysis, planning, implementation and administration. Students gain the necessary software skills to analyze network system needs; install, operate, troubleshoot and maintain local and wide are networks. Students obtain knowledge in basic network classifications and topologies, network wiring, server setup and configuration, network operating systems, communication standards for networks, network security and network applications.

Graduate job titles include Network Administrator, Network Specialist, Network Security Administrator, Network Operations Analyst, Communication Analyst, Network Technician and Customer Service Coordinator.

## NETWORK ADMINISTRATION TECHNOLOGY

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| MAT | 11XX | Algebra Elective | 4 | 0 | 4 |
| IT | 5201 | Information Technology Concepts | 2 | 3 | 3 |
| IT | 5231 | Operating Systems: DOS/Windows 1 | 2 | 3 | 3 |
| EET | 7701 | Electronic Fundamentals 1 | 3 | 2 | 4 |
| BT | 9200 | Professional Practices | 1 | 0 | 1 |
| | | | 15 | 8 | 18 |
| **SECOND TERM** | | | | | |
| IT | 9500 | Cooperative Education - Information Technologies (Alternating) | 1 | 40 | 2 |
| **THIRD TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| BUS | 2925 | Business Principles | 3 | 0 | 3 |
| IT | 5206 | Programming Logic and BASIC | 4 | 6 | 6 |
| IT | 5211 | Data Communications 1 | 2 | 3 | 3 |
| EET | 7707 | Survey of Analog Devices | 3 | 2 | 4 |
| | | | 15 | 11 | 19 |
| **FOURTH TERM** | | | | | |
| IT | 9500 | Cooperative Education - Information Technologies (Alternating) | 1 | 40 | 2 |
| **FIFTH TERM** | | | | | |
| MAT | 11XX | Statistics Elective | 4 | 0 | 4 |
| PSY | 1505 | Introduction to Psychology 1 | 3 | 0 | 3 |
| MGT | 2967 | Introduction to Management | 3 | 0 | 3 |
| IT | 5151 | Network Communications 1 | 2 | 3 | 3 |
| IT | 5212 | Data Communications 2 | 3 | 2 | 4 |
| | | | 15 | 5 | 17 |
| **SIXTH TERM** | | | | | |
| IT | 9500 | Cooperative Education - Information Technologies (Alternating) | 1 | 40 | 2 |
| **SEVENTH TERM** | | | | | |
| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| ECO | 1512 | Microeconomics | 3 | 0 | 3 |
| ACC | 2911 | Principles of Accounting 1 | 3 | 2 | 4 |
| IT | 5120 | LAN Administration: Novell | 3 | 2 | 4 |
| IT | 5121 | LAN Administration: Windows NT | 3 | 2 | 4 |
| IT | 5321 | Database Programming & Administration1: SQL Server | 2 | 3 | 3 |
| | | | 17 | 9 | 21 |
| **EIGHTH TERM** | | | | | |
| IT | 9500 | Cooperative Education - Information Technologies (Alternating) | 1 | 40 | 2 |
| **NINTH TERM** | | | | | |
| SPE | 1020 | Public Speaking | 3 | 0 | 3 |
| LAW | 1823 | Business Law 1 | 3 | 0 | 3 |
| MKT | 2903 | Introduction to Marketing | 3 | 0 | 3 |
| IT | 5130 | Telecommunications Management | 3 | 2 | 4 |
| | XXXX | Technical Elective | 2 | 3 | 3 |
| | XXXX | Humanities/Social Science Elective | 3 | 0 | 3 |
| | | | 17 | 5 | 19 |
| **TENTH TERM** | | | | | |
| IT | 9500 | Cooperative Education - Information Technologies (Alternating) | 1 | 40 | 2 |
| | | | | | 104 |

Technical Elective: IT 5131, IT 5152, TET 7762
Algebra Elective: MAT 1124, MAT 1151, MAT 1161
Statistics Elective: MAT 1179, MAT 1132
Humanities/Social Science Elective: Any PSY, SOC, ECO, HST, GEO, LBR

## Telecommunications Engineering Technology (TET)

Telecommunications Engineering Technology students develop skills needed to operate, install, and troubleshoot large computer networks. Students gain knowledge of telecommunication standards, wireless communications, and the interlinking of voice, video, and data services. Job titles for graduates include Central Office Technicians, Switching Technicians, PBX Systems Technicians, Automatic-equipment Technicians, Network Control Technicians and Microwave Technicians.

## TELECOMMUNICATIONS ENGINEERING TECHNOLOGY

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| MAT | 1191 | Algebra and Trigonometry 1 | 3 | 2 | 4 |
| IT | 5201 | Information Technology Concepts | 2 | 3 | 3 |
| EET | 7710 | DC Circuit Analysis | 5 | 0 | 5 |
| EET | 7711 | DC Circuits Lab | 0 | 3 | 1 |
| CPET | 7728 | Digital Combinational Logic | 3 | 2 | 4 |
| BT | 9200 | Professional Practices | 1 | 0 | 1 |
| | | | 14 | 10 | 18 |
| **SECOND TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| IT | 9500 | Cooperative Education - Information Technologies (Alternating) | 1 | 40 | 2 |
| | XXXX | Humanities/Social Science Elective | 3 | 0 | 3 |
| | | | 7 | 40 | 8 |
| **THIRD TERM** | | | | | |
| MAT | 1192 | Algebra and Trigonometry 2 | 4 | 0 | 4 |
| EET | 7716 | Computer Calculations for Electronics | 3 | 3 | 4 |
| EET | 7720 | AC Circuit Analysis | 5 | 0 | 5 |
| EET | 7721 | AC Circuits Lab | 0 | 3 | 1 |
| CPET | 7738 | Digital Sequential Logic | 3 | 3 | 4 |
| | | | 15 | 9 | 18 |
| **FOURTH TERM** | | | | | |
| PHY | 2291 | Physics 1 (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| IT | 9500 | Cooperative Education - Information Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 42 | 6 |
| **FIFTH TERM** | | | | | |
| IT | 5151 | Network Communications 1 | 2 | 3 | 3 |
| EET | 7730 | Electronics 1 | 5 | 2 | 6 |
| EET | 7742 | AutoCAD (Electrical) | 2 | 3 | 3 |
| TET | 7762 | Telecommunications 1 | 2 | 3 | 3 |
| | | | 11 | 11 | 15 |
| **SIXTH TERM** | | | | | |
| MAT | 1154 | Calculus 1 | 5 | 0 | 5 |
| IT | 9500 | Cooperative Education - Information Technologies (Alternating) | 1 | 40 | 2 |
| | | | 6 | 40 | 7 |
| **SEVENTH TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| SPE | 102X | Speech Elective | 3 | 0 | 3 |
| PHY | 2292 | Physics 2 (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| TET | 7743 | Analog Communications 1 | 3 | 2 | 4 |
| TET | 7772 | Telephony 1 | 2 | 3 | 3 |
| | | | 14 | 7 | 17 |
| **EIGHTH TERM** | | | | | |
| PHI | 1625 | Ethics | 3 | 0 | 3 |
| IT | 9500 | Cooperative Education - Information Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 40 | 5 |
| **NINTH TERM** | | | | | |
| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| PHY | 2293 | Physics 3 (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| TET | 7773 | Wireless Communications | 3 | 2 | 4 |
| | XXXX | Technical Elective | 3 | 2 | 4 |
| | | | 12 | 6 | 15 |
| **TENTH TERM** | | | | | |
| ECO | 15XX | Economics Elective | 3 | 0 | 3 |
| IT | 9500 | Cooperative Education - Information Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 40 | 5 |
| | | | | | 114 |

Humanities/Social Science Elective: Any PSY, SOC, ECO, LBR, HST, GEO
Technical Elective: IT 5120, IT 5121, IT 5330, EET 7740
Economics Elective: ECO 1512, ECO 1513
Speech Elective: SPE 1020, SPE 1022, SPE 1024

### Programming and Software Development Area

The Programming and Software Development area includes the Business Computer Programming degree, which focuses on the design, development, testing, and maintenance of computer software and systems. A new degree program in Software Engineering Technology includes study of computer operating systems, programming languages, and software development, while preparing students for transfer to Bachelor's degree programs in Computer Science and related fields.

### Business Computer Programming Technology (BCP)

Business Computer Programming students prepare software applications for micro- and mid-range computers used in business environments. Students develop skill using industry-standard programming languages, while also gaining knowledge of data communications, database management systems, and systems analysis. Students may choose courses in Internet programming, Visual C++, Visual Basic, Cobol and RPG.

Job titles for graduates include Computer Operator, PC Programmer, Systems Specialist, Entry-level Programmer, Senior-level Programmer, Operation System Specialist, Software Application Specialist, Junior Programmer and Help Desk Specialist.

## BUSINESS COMPUTER PROGRAMMING TECHNOLOGY

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| MAT | 11XX | Algebra Elective | 4 | 0 | 4 |
| IT | 5201 | Information Technology Concepts | 2 | 3 | 3 |
| IT | 5206 | Programming Logic and BASIC | 4 | 6 | 6 |
| IT | 5231 | Operating Systems: DOS/Windows 1 | 2 | 3 | 3 |
| BT | 9200 | Professional Practices | 1 | 0 | 1 |
| | | | 13 | 12 | 17 |
| **SECOND TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| IT | 9500 | Cooperative Education - Information Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 40 | 5 |
| **THIRD TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| MAT | 1111 | Statistics 1 | 3 | 0 | 3 |
| ACC | 2911 | Principles of Accounting 1 | 3 | 2 | 4 |
| BUS | 2925 | Business Principles | 3 | 0 | 3 |
| IT | 5XXX | Programming Elective 1 | 2 | 3 | 3 |
| | | | 14 | 5 | 16 |
| **FOURTH TERM** | | | | | |
| IT | 9500 | Cooperative Education - Information Technologies (Alternating) | 1 | 40 | 2 |
| **FIFTH TERM** | | | | | |
| PSY | 1505 | Introduction to Psychology 1 | 3 | 0 | 3 |
| ECO | 1512 | Microeconomics | 3 | 0 | 3 |
| MGT | 2967 | Introduction to Management | 3 | 0 | 3 |
| IT | 5XXX | Programming Elective 1 | 2 | 3 | 3 |

| | | | | | |
|---|---|---|---|---|---|
| IT | 5XXX | Programming Elective 2 | 2 | 3 | 3 |
| | XXXX | Humanities/Social Science Elective | 3 | 0 | 3 |
| | | | 16 | 6 | 18 |
| **SIXTH TERM** | | | | | |
| MKT | 2903 | Introduction to Marketing | 3 | 0 | 3 |
| IT | 9500 | Cooperative Education - Information Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 40 | 5 |
| **SEVENTH TERM** | | | | | |
| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| IT | 5207 | Systems Analysis and Design | 2 | 3 | 3 |
| IT | 5211 | Data Communications 1 | 2 | 3 | 3 |
| IT | 5233 | Operating Systems: AS/400 1 | 2 | 3 | 3 |
| IT | 5XXX | Programming Elective 1 | 2 | 3 | 3 |
| IT | 5XXX | Programming Elective 2 | 2 | 3 | 3 |
| | | | 13 | 15 | 18 |
| **EIGHTH TERM** | | | | | |
| IT | 5XXX | Programming Elective 2 | 2 | 3 | 3 |
| IT | 9500 | Cooperative Education - Information Technologies (Alternating) | 1 | 40 | 2 |
| | | | 3 | 43 | 5 |
| **NINTH TERM** | | | | | |
| SPE | 1020 | Public Speaking | 3 | 0 | 3 |
| IT | 5234 | Operating Systems: AS/400 2 | 2 | 3 | 3 |
| IT | 5271 | Java Programming 1 | 2 | 3 | 3 |
| IT | 5310 | Programming Database Applications | 2 | 3 | 3 |
| IT | 5XXX | Programming Elective 1 | 2 | 3 | 3 |
| IT | 5XXX | Programming Elective 2 | 2 | 3 | 3 |
| | | | 13 | 15 | 18 |
| **TENTH TERM** | | | | | |
| LAW | 1823 | Business Law 1 | 3 | 0 | 3 |
| IT | 9500 | Cooperative Education - Information Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 40 | 5 |
| | | | | | 109 |

Programming Electives 1 and 2 must be chosen from the following blocks. Two entire blocks must be completed to fulfill degree requirements. Total program credit hours depend on programming blocks chosen.

Programming Blocks:

COBOL: IT 5251, IT 5252;
RPG: IT 5261, IT 5262;
Visual Basic: IT 5291, IT 5292, IT 5293, IT 5294;
Internet Programming: IT 5331, IT 5332, IT 5271

Social Science Elective: Any PSY, SOC, ECO, HST, GEO, LBR
Algebra Elective: MAT 1124, MAT 1151

## Software Engineering Technology (SET)

The Software Engineering Technology program emphasizes skills needed to design, develop, implement, and maintain computer operating systems and software, using industry-standard programming languages. Graduates will be prepared to continue their education in Bachelor's degree programs in Computer Science or Computer Engineering. Students will study in the areas of Internet programming, Visual C++, Java programming, Visual Basic, Computer hardware and electronics.

Job titles for graduates include Systems Analyst, Programmer/Analyst, Operating System Analyst, Software Designer, Software Applications Specialist, Test Specialist, Junior-level Programmer, Senior-level Programmer and Software Applications Support Specialist.

## SOFTWARE ENGINEERING TECHNOLOGY

| | | | Hours Per Week Class | Lab | Credit Hours |
|---|---|---|---|---|---|
| **FIRST TERM** | | | | | |
| MAT | 1191 | Algebra and Trigonometry 1 | 3 | 2 | 4 |
| IT | 5201 | Information Technology Concepts | 2 | 3 | 3 |
| IT | 5206 | Programming Logic and BASIC | 4 | 6 | 6 |
| EET | 7701 | Electronic Fundamentals 1 | 3 | 2 | 4 |
| BT | 9200 | Professional Practices | 1 | 0 | 1 |
| | | | 13 | 13 | 18 |
| **SECOND TERM** | | | | | |
| MAT | 1192 | Algebra and Trigonometry 2 | 4 | 0 | 4 |
| IT | 9500 | Cooperative Education - Information Technologies (Alternating) | 1 | 40 | 2 |
| | | | 5 | 40 | 6 |
| **THIRD TERM** | | | | | |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| PHY | 2291 | Physics 1 (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| IT | 5291 | Visual BASIC 1 | 2 | 3 | 3 |
| IT | 5453 | Web Development 1: HTML | 2 | 3 | 3 |
| CPET | 7728 | Digital Combinational Logic | 3 | 2 | 4 |
| | | | 13 | 10 | 17 |
| **FOURTH TERM** | | | | | |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| PHI | 1625 | Ethics | 3 | 0 | 3 |
| IT | 9500 | Cooperative Education - Information Technologies (Alternating) | 1 | 40 | 2 |
| | | | 7 | 40 | 8 |
| **FIFTH TERM** | | | | | |
| PHY | 2292 | Physics 2 (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| IT | 5121 | LAN Administration: Windows NT | 3 | 2 | 4 |
| IT | 5292 | Visual BASIC 2 | 2 | 3 | 3 |
| IT | 5331 | Internet Programming : VBScript | 2 | 3 | 3 |
| CPET | 7748 | Microprocessor Systems 1 | 3 | 3 | 4 |
| | | | 13 | 13 | 18 |
| **SIXTH TERM** | | | | | |
| MAT | 1154 | Calculus 1 | 5 | 0 | 5 |
| IT | 9500 | Cooperative Education - Information Technologies (Alternating) | 1 | 40 | 2 |
| | | | 6 | 40 | 7 |
| **SEVENTH TERM** | | | | | |
| SPE | 102X | Speech Elective | 3 | 0 | 3 |
| PHY | 2293 | Physics 3 (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| IT | 5281 | Visual C++ 1 | 3 | 3 | 4 |
| IT | 5293 | Visual BASIC 3 | 2 | 3 | 3 |
| IT | 5332 | Internet Programming: JavaScript | 2 | 3 | 3 |
| | | | 13 | 11 | 17 |
| **EIGHTH TERM** | | | | | |
| MGT | 2996 | Project Management | 2 | 2 | 3 |
| IT | 9500 | Cooperative Education - Information Technologies (Alternating) | 1 | 40 | 2 |
| | | | 3 | 42 | 5 |
| **NINTH TERM** | | | | | |
| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| PSY | 1505 | Introduction to Psychology 1 | 3 | 0 | 3 |
| IT | 5271 | Java Programming 1 | 2 | 3 | 3 |
| IT | 5282 | Visual C++ 2 | 3 | 3 | 4 |
| IT | 5294 | Visual BASIC 4 | 2 | 3 | 3 |
| IT | 5333 | Internet Programming: XML | 2 | 3 | 3 |
| | | | 15 | 12 | 19 |
| **TENTH TERM** | | | | | |
| ECO | 15XX | Economics Elective | 3 | 0 | 3 |
| IT | 9500 | Cooperative Education - Information Technologies (Alternating) | 1 | 40 | 2 |
| | | | 4 | 40 | 5 |
| | | | | | 120 |

Speech Elective: SPE 1020, SPE 1022, SPE 1024
Economics Elective: ECO 1512, ECO 1513

# Sciences Division

Sciences Division faculty are prepared for and dedicated to fulfilling these Divisional goals:

- teaching the principles of physics, chemistry, and mathematics considered basic to successful studies in science-dependent fields such as engineering technologies, health technologies, science and health laboratory sciences, or technical business services.
- teaching the principles of physics, chemistry, and mathematics considered essential to successful science studies within liberal arts programs.
- providing in-depth instruction which prepares students for bachelor's degree studies in a scientific or mathematical field, through the Associate of Science degree program (see page 60).

The Sciences Division is committed to the integration of language and reading skills, mathematics, and the understanding of scientific principles to provide a comprehensive problem-solving approach to learning.

In addition, the Sciences Division places great emphasis on laboratory experiences, particularly in the laboratory-based departments of chemistry and physics. Through observation and manipulation of laboratory materials, students can gain genuine understanding of physical laws, concepts, and hypotheses and have opportunities to learn to use their own ingenuity while investigating and reporting on scientific issues and phenomena.

## Mathematics and Science Readiness

Recommendations for Cincinnati State students concerning enrollment in mathematics and science courses are determined according to the readiness of each student. Readiness is determined during the admissions process through assessment testing and advisor interviews. Students who need to brush up on skills prior to enrolling in college-level course sequences are assisted in selecting appropriate Development Education courses (described elsewhere in this catalog). As a result, opportunities for students to be successful in their mathematics and science studies are greatly enhanced.

## Cooperative Education in the Sciences Division

The Sciences Division shares the College's commitment to cooperative education as an integral part of the curriculum. In order to participate in cooperative education, students in the Sciences Division degree programs must comply with College eligibility requirements and registration procedures.

Students seeking the Associate of Science degree must adhere to the cooperative education requirements for the AS degree, as stated on page 64.

## Transfer Module

The Associate of Science degree requirements contain all of the requirements of the College Transfer module.

# Transfer Agreement between Cincinnati State and the University of Cincinnati College of Evening and Continuing Education

In addition to the program articulation agreements with four-year colleges and universities mentioned in the academic divisions sections, Cincinnati State Technical and Community College offers a general transfer agreement with the University of Cincinnati for technical degree graduates.

Cincinnati State and the University of Cincinnati College of Evening and Continuing Education (CECE) recognize the significance of transfer practices and therefore join together to foster the opportunity for Cincinnati State graduates to link the learning from their technical and applied associate degrees with the CECE Applied and General Studies (AGS) baccalaureate degree.

Cincinnati State students who earn an Associate of Applied Business or Applied Science degree will normally enter the AGS baccalaureate program at the junior level upon being admitted to CECE. A varying number of credit hours will transfer into the program, depending on the transferred courses that are equivalent to AGS degree requirements; however, students are guaranteed the acceptance of 45-69 technical credit hours earned through their associate degree in which a grade point average of 2.0 was maintained.

The AGS program is structured as a dual major program in order to provide a broad educational experience for students. The technical area of the student's associate degree comprises one concentration area. The other concentration area of the program is different from the area of study within the associate degree. The student selects this area from three tracks of study: Business, Information Processing Systems, or Individualized Study.

Information on this transfer agreement is available in the Cincinnati State Admissions Office.

# Corporate & Community Services

The Corporate & Community Services Division of Cincinnati State is committed to the delivery of lifelong learning opportunities that provide the community with increased access to the resources of the College in order to promote personal and professional enrichment, economic growth, and workforce development throughout the region.

Corporate & Community Services offers a variety of professional development programs, quality technical training and technology support, workforce education and community enrichment through customized certificate programs, individualized associate degrees, and traditional academic studies. The division is committed to:

- developing and maintaining strong, mutually beneficial parnerships with business, industry, government, non-profit agencies, the professions, and other educational institutions;
- serving clients using needs-based strategies;
- providing flexibility in the customization of training and technical assistance;
- delivering services in the workplace or at College facilities;
- providing efficient cost-effective and prompt services;
- providing results-driven learning services;
- utilizing a variety of instructional technologies that respond to the varied needs of clients;
- supporting the economic development of the Tri-State region.

## Extension Sites

Cincinnati State provides college credit and non-credit courses through community learning centers located at Oak Hills High School, Colerain High School, Lower Price Hill School, the Cincinnati State West campus in Harrison, Ohio and the Workforce Development Center in Evendale.

Whether it is for college credit or personal enrichment, courses offered at the extension sites bring Cincinnati State to local neighborhoods and the community. Courses offered at the extension sites are listed in the Term Schedule and are identified with a site abbreviation code under the Building (BLDG) column.

## Distance Learning

Distance education offers students unique opportunities to learn away from the more traditional classroom setting.

**Media-Assisted Courses**

Course instruction is provided utilizing either television broadcasts and/or videotapes, combined with a minimum of on-campus meetings. Media-assisted courses are identified with a DIS code under the Activity (ACT) Column of the course schedule.

**Teleconferences**

Courses, seminars and workshops are delivered via satellite downlink or broadcast technology.

**Internet**

A variety of web-based course are available for credit and non-credit.

Contact the Office of the Dean of Continuing Education for more information regarding distance learning options.

# Associate of Individualized Study

In order to meet the particular career education needs of qualified students, Cincinnati State offers the Associate of Individualized Study (AIS) degree. This degree can be pursued by students whose career objectives cannot be met through one of the associate degree programs offered by the College.

To apply for acceptance into an AIS degree program, students should follow these steps:

1. Contact the Dean of Continuing Education.
2. Complete an admissions application.
3. Have a copy of their high school transcript and college transcript, if applicable, sent directly to the College's Admission Records Office. Applicants who have a GED should submit a copy of the scores.
4. Take the college placement test, COMPASS.
5. Meet with an admissions counselor who will direct the student to the academic division which will be responsible for the AIS program.
6. Consult with the assigned academic advisor who will assist the student in planning the AIS curriculum.
7. Write a justification of the degree program, including a statement of career goals and an explanation of why another associate degree program would not be appropriate.

The program justification and curriculum must be sent to the Academic Policies and Curriculum Committee (APCC) for approval. The APCC may approve the request, suggest modifications in the curriculum, or deny the request. If the AIS program proposal is denied, the student may wish to apply to another academic program.

# Associate of Technical Study

## Associate of Technical Study: Type A Program

This program enables the student to receive college credit for qualified industry training and to choose courses from two or more existing Cincinnati State associate degree programs and thereby design a personalized curriculum. All ATS-Type A program curricula must be approved by the Academic Policies and Curriculum Committee.

For more information concerning the Associate of Technical Study-Type A program, contact the Dean of Continuing Education.

## Associate of Technical Study: Type B Program

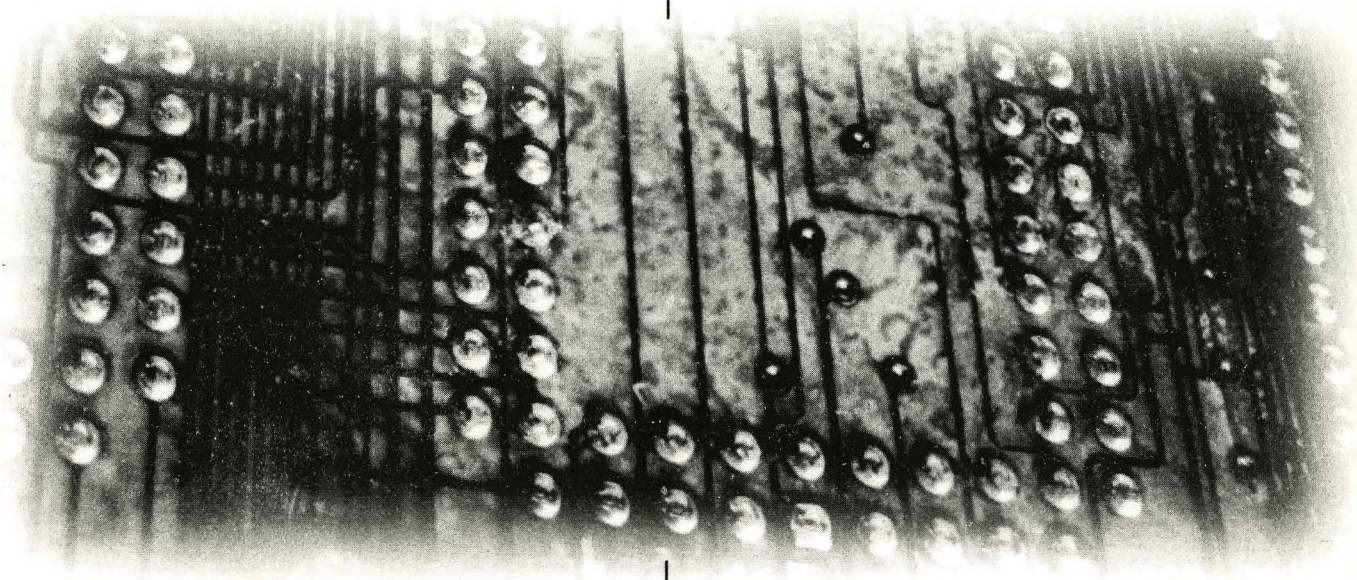
This program helps the College to develop associate degree programs in partnership with professional organizations and helps business/industrial firms with staff development programs by equating their training activity to a block of college credit.

A College review committee will examine the training program offered by an organization in order to determine if it qualifies for inclusion. All ATS-Type B curricula must be approved by the Academic Policies and Curriculum Committee.

When implemented, each program accommodates students transferring from an educational program which lies outside the traditional collegial domain. The degree gives recognition to the training of the professionals while enabling them to experience the broadening and enriching components of a college education. All ATS-Type B program curricula must be approved by the Academic Policies and Curriculum Committee.

Cincinnati State

# T E C H N O L O G Y



# for your career

# COURSE DESCRIPTIONS

# Course Number Index

NOTE: MAC and MIS Department courses are now classified IT (Information Technologies) Department courses. TWE Department courses are now classified TC (Technical Communication) Department courses. Course equivalents are listed under the former department headings.


| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0003 | DE | 1041 | LIT | 1084 | SPN | 1192 | MAT | 1480 | GC | 1568 | HST |
| 0004 | DE | 1042 | LIT | 1085 | SPN | 1193 | MAT | 1481 | GC | 1569 | HST |
| 0005 | DE | 1045 | LIT | 1086 | ITP | 1194 | MAT | 1483 | GC | 1570 | HST |
| 0010 | DE | 1046 | LIT | 1087 | ITP | 1198 | MAT | 1502 | PSY | 1575 | HST |
| 0011 | DE | 1047 | LIT | 1088 | ITP | 1199 | MAT | 1503 | PSY | 1576 | HST |
| 0018 | DE | 1048 | LIT | 1089 | ITP | 1220 | MRDD | 1505 | PSY | 1577 | HST |
| 0020 | DE | 1050 | LIT | 1091 | ITP | 1221 | MRDD | 1506 | PSY | 1578 | HST |
| 0024 | DE | 1051 | LIT | 1092 | ITP | 1250 | CRJ | 1507 | PSY | 1598 | SSC |
| 0025 | DE | 1052 | LIT | 1093 | ITP | 1251 | CRJ | 1508 | PSY | 1599 | SSC |
| 0060 | ESL | 1053 | LIT | 1094 | ITP | 1252 | CRJ | 1509 | PSY | 1602 | CULT |
| 0061 | ESL | 1054 | LIT | 1095 | ITP | 1253 | CRJ | 1510 | PSY | 1620 | PHI |
| 0063 | ESL | 1055 | LIT | 1096 | ITP | 1254 | CRJ | 1511 | PSY | 1621 | PHI |
| 0098 | ESL | 1056 | LIT | 1098 | ENG | 1255 | CRJ | 1512 | ECO | 1625 | PHI |
| 1001 | ENG | 1057 | LIT | 1099 | ENG | 1256 | CRJ | 1513 | ECO | 1630 | PHI |
| 1002 | ENG | 1059 | LIT | 1105 | MAT | 1257 | CRJ | 1514 | ECO | 1631 | PHI |
| 1003 | ENG | 1060 | FRN | 1111 | MAT | 1270 | SOC | 1520 | SOC | 1645 | CULT |
| 1009 | ENG | 1061 | FRN | 1112 | MAT | 1271 | SOC | 1521 | SOC | 1646 | CULT |
| 1010 | ENG | 1062 | FRN | 1113 | MAT | 1272 | SOC | 1523 | SOC | 1647 | CULT |
| 1011 | ENG | 1063 | FRN | 1121 | MAT | 1273 | SOC | 1524 | SOC | 1660 | ART |
| 1015 | ENG | 1064 | FRN | 1122 | MAT | 1298 | CRJ | 1525 | SOC | 1662 | ART |
| 1017 | ENG | 1065 | FRN | 1123 | MAT | 1299 | CRJ | 1526 | SOC | 1663 | ART |
| 1018 | ENG | 1070 | GRM | 1124 | MAT | 1403 | GC | 1528 | SOC | 1664 | ART |
| 1019 | ENG | 1071 | GRM | 1128 | MAT | 1415 | GC | 1531 | POL | 1665 | MUS |
| 1020 | SPE | 1072 | GRM | 1151 | MAT | 1419 | GC | 1532 | POL | 1666 | MUS |
| 1022 | SPE | 1073 | GRM | 1152 | MAT | 1421 | GC | 1533 | POL | 1667 | MUS |
| 1024 | SPE | 1074 | GRM | 1154 | MAT | 1422 | GC | 1535 | LBR | 1670 | THE |
| 1027 | SPE | 1075 | GRM | 1155 | MAT | 1425 | GC | 1538 | LBR | 1671 | THE |
| 1031 | JOU | 1076 | SPN | 1156 | MAT | 1426 | GC | 1539 | LBR | 1680 | CULT |
| 1032 | JOU | 1077 | SPB | 1161 | MAT | 1429 | GC | 1540 | LBR | 1681 | CULT |
| 1033 | JOU | 1078 | SPB | 1162 | MAT | 1430 | GC | 1551 | GEO | 1690 | ART |
| 1036 | ENG | 1079 | SPB | 1171 | MAT | 1431 | GC | 1552 | GEO | 1691 | ART |
| 1037 | ENG | 1080 | SPN | 1172 | MAT | 1439 | GC | 1553 | GEO | 1692 | ART |
| 1038 | ENG | 1081 | SPN | 1173 | MAT | 1440 | GC | 1561 | HST | 1695 | HNR |
| 1039 | ENG | 1082 | SPN | 1179 | MAT | 1449 | GC | 1562 | HST | 1696 | HNR |
| 1040 | LIT | 1083 | SPN | 1191 | MAT | 1450 | GC | 1563 | HST | 1698 | HUM |

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| 1699 | HUM | 2244 | PHY | 2550 | ASM | 2914 | ACC | 2975 | MGT | 3074 | OT |
| 1804 | FIN | 2251 | CHE | 2551 | ASM | 2915 | ACC | 2976 | FIN | 3075 | OT |
| 1810 | MKT | 2252 | CHE | 2555 | ASM | 2917 | ACC | 2977 | MGT | 3076 | OT |
| 1817 | PUR | 2253 | CHE | 2560 | ASM | 2918 | ACC | 2978 | MGT | 3080 | OT |
| 1818 | PUR | 2263 | PSC | 2565 | ASM | 2919 | ACC | 2979 | MGT | 3092 | OT |
| 1823 | LAW | 2264 | PSC | 2570 | ASM | 2920 | ACC | 2980 | ITM | 3094 | BUS |
| 1824 | LAW | 2265 | PSC | 2801 | HRM | 2921 | ACC | 2981 | ITM | 3095 | OT |
| 1825 | LAW | 2267 | PSC | 2802 | HRM | 2922 | ACC | 2982 | ITM | 3096 | OT |
| 1827 | LAW | 2269 | PSC | 2803 | HRM | 2923 | MKT | 2983 | ITM | 3500 | LH |
| 1832 | MGT | 2270 | PHY | 2804 | HRM | 2924 | ACC | 2986 | MGT | 3501 | LH |
| 1844 | MKT | 2277 | PSC | 2805 | HRM | 2925 | BUS | 2987 | MGT | 3502 | LH |
| 1845 | MKT | 2281 | CHE | 2806 | HRM | 2931 | PM | 2988 | MGT | 3504 | LH |
| 1850 | OT | 2282 | CHE | 2808 | HRM | 2932 | PM | 2989 | MGT | 3505 | LH |
| 1851 | ACC | 2283 | CHE | 2811 | HRM | 2933 | PM | 2990 | MKT | 3506 | LH |
| 1861 | OT | 2291 | PHY | 2812 | HRM | 2935 | PM | 2996 | MGT | 3507 | LH |
| 1862 | OT | 2292 | PHY | 2813 | HRM | 2936 | PM | 3001 | OT | 3508 | LH |
| 1863 | OT | 2293 | PHY | 2818 | HRM | 2937 | PUR | 3002 | OT | 3509 | LH |
| 1864 | OT | 2294 | PHY | 2821 | HRM | 2938 | PUR | 3003 | OT | 3510 | LH |
| 1872 | PUR | 2295 | PHY | 2822 | CUL | 2939 | PUR | 3006 | OT | 3511 | LH |
| 1873 | MKT | 2296 | PHY | 2823 | CUL | 2940 | PUR | 3007 | OT | 3513 | LH |
| 1874 | MKT | 2297 | PHY | 2824 | CUL | 2941 | ACC | 3016 | OT | 3515 | LH |
| 1875 | LAW | 2298 | PHY | 2825 | CUL | 2942 | ACC | 3017 | OT | 3516 | LH |
| 1877 | PUR | 2299 | PSC | 2826 | CUL | 2943 | ACC | 3021 | OT | 3517 | LH |
| 1878 | MKT | 2520 | ASM | 2827 | CUL | 2951 | RE | 3022 | OT | 3518 | LH |
| 1879 | MKT | 2521 | ASM | 2828 | HRM | 2953 | RE | 3023 | OT | 3519 | LH |
| 1883 | MKT | 2522 | ASM | 2830 | HRM | 2954 | RE | 3024 | OT | 3520 | LH |
| 1999 | BUS | 2525 | ASM | 2831 | CUL | 2956 | RE | 3032 | OT | 3523 | LH |
| 2200 | CHE | 2526 | ASM | 2832 | CUL | 2959 | RE | 3035 | OT | 3524 | LH |
| 2202 | CHE | 2527 | ASM | 2833 | CUL | 2960 | FIN | 3036 | OT | 3526 | LH |
| 2203 | CHE | 2528 | ASM | 2834 | CUL | 2961 | FIN | 3058 | OT | 3528 | LH |
| 2220 | PHY | 2530 | ASM | 2835 | CUL | 2962 | FIN | 3059 | OT | 3529 | LH |
| 2221 | PHY | 2531 | ASM | 2840 | HRM | 2965 | MGT | 3062 | OT | 3530 | LH |
| 2222 | PHY | 2532 | ASM | 2900 | ACC | 2966 | MGT | 3064 | OT | 3532 | LH |
| 2223 | PHY | 2535 | ASM | 2901 | MKT | 2967 | MGT | 3066 | OT | 3533 | LH |
| 2224 | PHY | 2536 | ASM | 2902 | MKT | 2969 | FIN | 3068 | OT | 3534 | LH |
| 2231 | CHE | 2540 | ASM | 2903 | MKT | 2970 | MGT | 3069 | OT | 3535 | LH |
| 2232 | CHE | 2541 | ASM | 2911 | ACC | 2971 | MGT | 3070 | OT | 3536 | LH |
| 2233 | CHE | 2542 | ASM | 2912 | ACC | 2972 | MGT | 3071 | OT | 3537 | LH |
| 2236 | CHE | 2545 | ASM | 2913 | ACC | 2973 | BUS | 3073 | OT | 3538 | LH |

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| 3539 | LH | 4073 | BIO | 4136 | DT | 4205 | MA | 4368 | ECE | 4535 | ST |
| 3540 | LH | 4074 | BIO | 4137 | DT | 4206 | MA | 4369 | ECE | 4538 | ST |
| 3544 | LH | 4075 | BIO | 4138 | DT | 4207 | MA | 4370 | ECE | 4541 | ST |
| 3546 | LH | 4081 | BIO | 4139 | DT | 4208 | MA | 4371 | ECE | 4542 | ST |
| 3547 | LH | 4082 | BIO | 4155 | DT | 4209 | MA | 4372 | ECE | 4543 | ST |
| 3548 | LH | 4083 | BIO | 4156 | DT | 4211 | MA | 4373 | ECE | 4544 | ST |
| 3599 | LH | 4085 | IMT | 4157 | DT | 4212 | MA | 4374 | ECE | 4551 | ST |
| 3811 | ITHT | 4086 | IMT | 4158 | DT | 4213 | MA | 4375 | ECE | 4552 | ST |
| 3813 | ITHT | 4087 | IMT | 4159 | DT | 4214 | MA | 4388 | ECE | 4553 | ST |
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| 4001 | MCH | 4091 | BIO | 4162 | HFT | 4224 | MA | 4398 | CLT | 4571 | ST |
| 4004 | MCH | 4092 | BIO | 4165 | HFT | 4245 | MA | 4399 | CLT | 4572 | ST |
| 4008 | MCH | 4093 | BIO | 4166 | HFT | 4294 | MA | 4405 | HIM | 4579 | ST |
| 4009 | BIO | 4094 | HLT | 4170 | HFT | 4298 | MA | 4407 | HIM | 4580 | ST |
| 4014 | BIO | 4095 | BIO | 4171 | HFT | 4299 | MA | 4410 | HIM | 4581 | ST |
| 4015 | BIO | 4098 | HLT | 4172 | HFT | 4301 | CLT | 4411 | HIM | 4584 | ST |
| 4016 | BIO | 4099 | HLT | 4173 | HFT | 4302 | CLT | 4415 | HIM | 4585 | ST |
| 4018 | BIO | 4100 | DT | 4174 | HFT | 4303 | CLT | 4417 | HIM | 4586 | ST |
| 4020 | BIO | 4102 | DT | 4175 | HFT | 4304 | CLT | 4420 | HIM | 4590 | ST |
| 4021 | BIO | 4104 | DT | 4176 | HFT | 4305 | CLT | 4421 | HIM | 4592 | ST |
| 4022 | BIO | 4106 | DT | 4177 | HFT | 4306 | CLT | 4422 | HIM | 4593 | ST |
| 4023 | BIO | 4107 | DT | 4178 | HFT | 4307 | CLT | 4428 | HIM | 4594 | ST |
| 4055 | PE | 4109 | DT | 4180 | HFT | 4308 | CLT | 4429 | HIM | 4598 | ST |
| 4056 | PE | 4111 | DT | 4181 | HFT | 4309 | CLT | 4431 | HIM | 4599 | ST |
| 4057 | PE | 4112 | DT | 4182 | HFT | 4310 | CLT | 4432 | HIM | 4600 | OTA |
| 4058 | HFT | 4113 | DT | 4183 | HFT | 4311 | CLT | 4450 | HIM | 4610 | OTA |
| 4060 | HFT | 4114 | DT | 4185 | HFT | 4312 | CLT | 4451 | HIM | 4611 | OTA |
| 4061 | HLT | 4115 | DT | 4186 | HFT | 4313 | CLT | 4452 | HIM | 4612 | OTA |
| 4062 | PE | 4116 | DT | 4188 | HFT | 4314 | CLT | 4453 | HIM | 4613 | OTA |
| 4063 | PE | 4117 | DT | 4189 | HFT | 4317 | CLT | 4490 | HIM | 4614 | OTA |
| 4064 | PE | 4120 | DT | 4194 | DT | 4350 | CLT | 4494 | HIM | 4620 | OTA |
| 4065 | PE | 4121 | DT | 4197 | DT | 4353 | CLT | 4498 | HIM | 4621 | OTA |
| 4066 | PE | 4122 | DT | 4198 | DT | 4359 | ECE | 4499 | HIM | 4622 | OTA |
| 4067 | PE | 4124 | DT | 4199 | DT | 4360 | ECE | 4505 | ST | 4623 | OTA |
| 4068 | PE | 4125 | DT | 4200 | MA | 4361 | ECE | 4506 | ST | 4624 | OTA |
| 4069 | PE | 4129 | DT | 4201 | MA | 4362 | ECE | 4531 | ST | 4625 | OTA |
| 4070 | PE | 4130 | DT | 4202 | MA | 4363 | ECE | 4532 | ST | 4631 | OTA |
| 4071 | BIO | 4134 | DT | 4203 | MA | 4364 | ECE | 4533 | ST | 4633 | OTA |
| 4072 | BIO | 4135 | DT | 4204 | MA | 4367 | ECE | 4534 | ST | 4635 | OTA |

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| 4651 | OTA | 4764 | EMS | 4846 | MCH | 4946 | NUR | 5202 | IT | 5312 | IT |
| 4652 | OTA | 4765 | EMS | 4849 | MCH | 4953 | NUR | 5204 | IT | 5321 | IT |
| 4653 | OTA | 4766 | EMS | 4851 | IMT | 4954 | NUR | 5205 | IT | 5322 | IT |
| 4660 | OTA | 4768 | EMS | 4852 | IMT | 4955 | NUR | 5206 | IT | 5323 | IT |
| 4661 | OTA | 4769 | EMS | 4855 | IMT | 4956 | NUR | 5207 | IT | 5324 | IT |
| 4670 | OTA | 4773 | FST | 4856 | IMT | 4963 | NUR | 5208 | IT | 5331 | IT |
| 4680 | OTA | 4774 | FST | 4857 | IMT | 4964 | NUR | 5211 | IT | 5332 | IT |
| 4681 | OTA | 4782 | EMS | 4858 | IMT | 4973 | NUR | 5212 | IT | 5333 | IT |
| 4682 | OTA | 4783 | FST | 4859 | IMT | 4981 | NUR | 5221 | IT | 5340 | IT |
| 4698 | OTA | 4784 | FST | 4870 | MCH | 4982 | NUR | 5222 | IT | 5351 | IT |
| 4699 | OTA | 4785 | FST | 4871 | MCH | 4993 | NUR | 5223 | IT | 5352 | IT |
| 4701 | RT | 4786 | FST | 4880 | MCH | 4997 | NUR | 5224 | IT | 5353 | IT |
| 4702 | RT | 4787 | FST | 4881 | MCH | 4999 | NUR | 5225 | IT | 5361 | IT |
| 4703 | RT | 4788 | FST | 4882 | MCH | 5001 | TC | 5226 | IT | 5362 | IT |
| 4704 | RT | 4789 | FST | 4883 | MCH | 5010 | TC | 5227 | IT | 5363 | IT |
| 4705 | RT | 4790 | FST | 4885 | MCH | 5020 | TC | 5228 | IT | 5371 | IT |
| 4706 | RT | 4791 | FST | 4886 | MCH | 5022 | TC | 5229 | IT | 5372 | IT |
| 4707 | RT | 4792 | FST | 4890 | MCH | 5032 | TC | 5230 | IT | 5373 | IT |
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| 4712 | RT | 4795 | RT | 4893 | IMT | 5037 | TC | 5232 | IT | 5420 | IT |
| 4713 | RT | 4797 | EMS | 4894 | IMT | 5041 | TC | 5233 | IT | 5431 | IT |
| 4714 | RT | 4798 | RT | 4897 | MCH | 5042 | TC | 5234 | IT | 5432 | IT |
| 4715 | RT | 4799 | RT | 4898 | MCH | 5071 | TC | 5240 | IT | 5433 | IT |
| 4716 | RT | 4805 | MCH | 4899 | MCH | 5089 | TC | 5241 | IT | 5441 | IT |
| 4718 | RT | 4810 | MCH | 4900 | NUR | 5098 | TC | 5247 | IT | 5442 | IT |
| 4719 | RT | 4811 | MCH | 4920 | NUR | 5099 | TC | 5251 | IT | 5443 | IT |
| 4720 | RT | 4812 | MCH | 4921 | NUR | 5102 | IT | 5252 | IT | 5444 | IT |
| 4723 | RT | 4813 | MCH | 4922 | NUR | 5103 | IT | 5261 | IT | 5445 | IT |
| 4730 | EMS | 4814 | MCH | 4923 | NUR | 5105 | IT | 5262 | IT | 5451 | IT |
| 4731 | EMS | 4816 | MCH | 4924 | NUR | 5106 | IT | 5271 | IT | 5452 | IT |
| 4732 | EMS | 4817 | MCH | 4925 | NUR | 5116 | IT | 5272 | IT | 5453 | IT |
| 4733 | EMS | 4818 | MCH | 4926 | NUR | 5120 | IT | 5281 | IT | 5454 | IT |
| 4734 | EMS | 4820 | MCH | 4927 | NUR | 5121 | IT | 5282 | IT | 5455 | IT |
| 4735 | EMS | 4821 | MCH | 4931 | NUR | 5130 | IT | 5291 | IT | 5456 | IT |
| 4751 | EMS | 4822 | MCH | 4933 | NUR | 5131 | IT | 5292 | IT | 5457 | IT |
| 4752 | EMS | 4825 | MCH | 4937 | NUR | 5151 | IT | 5293 | IT | 5458 | IT |
| 4760 | EMS | 4840 | MCH | 4941 | NUR | 5152 | IT | 5294 | IT | 5459 | ITP |
| 4761 | EMS | 4841 | MCH | 4943 | NUR | 5153 | IT | 5310 | IT | 5460 | ITP |
| 4763 | EMS | 4842 | MCH | 4945 | NUR | 5201 | IT | 5311 | IT | 5461 | ITP |

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| 5463 | ITP | 6641 | CMT | 7005 | MET | 7199 | MET | 7623 | EVS | 7759 | BMT |
| 5464 | ITP | 6649 | CMT | 7006 | EMT | 7220 | MET | 7643 | EVET | 7762 | TET |
| 5465 | ITP | 6651 | CMT | 7008 | MET | 7230 | MET | 7644 | EVET | 7766 | EET |
| 5466 | ITP | 6698 | CMT | 7015 | EVET | 7240 | MET | 7646 | EVET | 7768 | CPET |
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| 5468 | ITP | 6700 | LOT | 7025 | CET | 7310 | MET | 7670 | EVET | 7771 | EET |
| 5470 | ITP | 6710 | LOT | 7026 | CET | 7320 | MET | 7671 | EVET | 7772 | TET |
| 5471 | ITP | 6715 | LOT | 7027 | MET | 7330 | MET | 7675 | EVET | 7773 | TET |
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| 5474 | ITP | 6730 | LOT | 7029 | MET | 7345 | MET | 7677 | EVET | 7781 | EET |
| 5475 | ITP | 6735 | LOT | 7035 | EET | 7351 | MET | 7699 | EVET | 7799 | EET |
| 5476 | ITP | 6736 | LOT | 7036 | EMT | 7355 | MET | 7700 | EET | 7901 | CET |
| 5477 | ITP | 6740 | LOT | 7099 | ET | 7501 | EMT | 7701 | EET | 7910 | CET |
| 5478 | ITP | 6741 | LOT | 7110 | MET | 7525 | EMT | 7702 | EET | 7913 | CET |
| 5479 | ITP | 6742 | LOT | 7111 | MET | 7535 | EMT | 7703 | EET | 7916 | CET |
| 5480 | ITP | 6745 | LOT | 7120 | MET | 7536 | EMT | 7705 | CPET | 7917 | CET |
| 5481 | ITP | 6749 | LOT | 7121 | MET | 7541 | EMT | 7707 | EET | 7918 | CET |
| 5482 | ITP | 6750 | LOT | 7122 | MET | 7546 | EMT | 7710 | EET | 7920 | CET |
| 5498 | ITP | 6758 | LOT | 7125 | MET | 7552 | EMT | 7711 | EET | 7927 | CET |
| 5499 | ITP | 6768 | LOT | 7130 | MET | 7555 | EMT | 7716 | EET | 7928 | CET |
| 5571 | IT | 6799 | LOT | 7132 | MET | 7600 | EVET | 7720 | EET | 7930 | CET |
| 5598 | IT | 6810 | OPT | 7135 | MET | 7601 | EVET | 7721 | EET | 7931 | CET |
| 5599 | IT | 6812 | OPT | 7140 | MET | 7602 | EVET | 7728 | CPET | 7934 | CET |
| 6270 | QCC | 6820 | OPT | 7141 | MET | 7603 | EVET | 7730 | EET | 7935 | CET |
| 6272 | QCC | 6830 | OPT | 7142 | EMT | 7604 | EVET | 7731 | EMT | 7936 | CET |
| 6273 | QCC | 6831 | OPT | 7146 | EMT | 7605 | EVET | 7732 | EMT | 7940 | CET |
| 6274 | QCC | 6833 | OPT | 7148 | MET | 7607 | EVET | 7733 | EET | 7941 | CET |
| 6275 | QCC | 6841 | OPT | 7150 | MET | 7608 | EVET | 7736 | EET | 7942 | CET |
| 6276 | QCC | 6843 | OPT | 7155 | MET | 7609 | EVET | 7738 | CPET | 7943 | CET |
| 6277 | QCC | 6845 | OPT | 7156 | EMT | 7610 | EVET | 7739 | BMT | 7944 | CET |
| 6278 | QCC | 6851 | OPT | 7157 | EMT | 7611 | EVET | 7740 | EET | 7947 | CET |
| 6279 | QCC | 6855 | OPT | 7158 | MET | 7612 | EVET | 7742 | EET | 7948 | CET |
| 6298 | QCC | 6857 | OPT | 7167 | EMT | 7613 | EVET | 7743 | TET | 7949 | CET |
| 6299 | QCC | 6867 | OPT | 7181 | EMT | 7614 | EVET | 7747 | CPET | 7950 | CET |
| 6611 | CMT | 6899 | OPT | 7182 | EMT | 7616 | EVET | 7748 | CPET | 7951 | CET |
| 6619 | CMT | 7001 | EET | 7183 | EMT | 7617 | EVET | 7749 | BMT | 7953 | CET |
| 6621 | CMT | 7002 | MET | 7184 | EMT | 7618 | EVET | 7750 | EET | 7954 | CET |
| 6630 | CMT | 7003 | EMT | 7185 | EMT | 7621 | EVS | 7757 | CPET | 7955 | CET |

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|---|---|---|---|---|---|
| 7956 | CET | 8199 | AVT | 9245 | LH |
| 7958 | CET | 8200 | AVT | 9247 | OT |
| 7959 | CET | 8201 | AVT | 9248 | BUS |
| 7963 | CET | 8202 | AVT | 9249 | RE |
| 7964 | CET | 8300 | AVT | 9250 | CM |
| 7968 | CET | 8306 | AVT | 9251 | CM |
| 7969 | CET | 8310 | AVT | 9252 | ITM |
| 7999 | CET | 8311 | AVT | 9253 | ITM |
| 8100 | AVT | 8320 | AVT | 9320 | HLT |
| 8101 | AVT | 8321 | AVT | 9362 | EMS |
| 8102 | AVT | 8330 | AVT | 9367 | MCH |
| 8106 | AVT | 8331 | AVT | 9368 | HFT |
| 8107 | AVT | 8500 | ITE | 9372 | NUR |
| 8108 | AVT | 8700 | ITE | 9373 | HIM |
| 8109 | AVT | 8900 | ITE | 9374 | CLT |
| 8130 | AVT | 9002 | CAR | 9375 | DT |
| 8131 | AVT | 9014 | CAR | 9376 | RT |
| 8132 | AVT | 9015 | CAR | 9377 | MCH |
| 8140 | AVT | 9200 | BT | 9378 | HFT |
| 8142 | AVT | 9220 | ACC | 9386 | RT |
| 8143 | AVT | 9221 | ASM | 9387 | MA |
| 8150 | AVT | 9222 | BUS | 9388 | MA |
| 8151 | AVT | 9223 | GC | 9400 | ET |
| 8152 | AVT | 9224 | HOSP | 9401 | ET |
| 8154 | AVT | 9225 | LH | 9500 | IT |
| 8155 | AVT | 9227 | OT | 9501 | IT |
| 8160 | AVT | 9228 | BUS | 9600 | SLT |
| 8161 | AVT | 9229 | RE | 9610 | SLT |
| 8162 | AVT | 9230 | BUS | 9801 | HUM |
| 8170 | AVT | 9231 | BUS | 9802 | HUM |
| 8171 | AVT | 9232 | BUS | 9803 | HUM |
| 8172 | AVT | 9233 | BUS | 9804 | HUM |
| 8180 | AVT | 9234 | BUS | 9805 | HUM |
| 8181 | AVT | 9235 | BUS | 9806 | HUM |
| 8182 | AVT | 9240 | ACC | 9900 | ECE |
| 8183 | AVT | 9241 | ASM | 9901 | ECE |
| 8185 | AVT | 9242 | BUS | 9902 | ECE |
| 8190 | AVT | 9243 | GC | | |
| 8191 | AVT | 9244 | HOSP | | |

# ACC Accounting

**1851 Auditing** **3-0-3**
Auditing techniques and procedures for manual and computer-based accounting. Topics include: review of internal control; preparation of audit programs, flowcharts, and working papers; and internal auditing.
Prerequisites: ACC 2913.

**2900 Pre-Accounting** **3-0-3**
A course on reading strategies, vocabulary terms and math concepts for success in accounting courses. Topics include: the basic accounting equation, the accounting cycle and related terminology, the income statement, the statement of owner's equity, and the balance sheet. This course is not a replacement for ACC 2911.
Prerequisites: None.

**2911 Principles of Accounting 1** **3-2-4**
Principles and practices of basic accounting. Topics include: journalizing, posting, adjusting accounts, and preparing financial statements for both service and merchandising companies. Students complete a manual practice set.
Prerequisites: None.

**2912 Principles of Accounting 2** **4-0-4**
A continuation of ACC 2911. Topics include: cash, bank reconciliations, accounts receivable, accounting for bad debts, inventory methods, long-term assets, depreciation methods, current liabilities, and payroll accounting.
Prerequisites: ACC 2911.

**2913 Principles of Accounting 3** **4-0-4**
A continuation of ACC 2912. Topics include: partnership, corporations, earnings per share, retained earnings, dividends, bonds, investments, working capital, statements of cash flow, and analysis of financial statements.
Prerequisites: ACC 2912.

**2914 Cost Accounting 1** **3-0-3**
An introduction to the principles and practices of cost accounting. Topics include: the study of manufacturing costs, cost terminology, cost flows, and allocation of overhead costs; and product costing using the job order costing system.
Prerequisites: ACC 2911.

**2915 Cost Accounting 2** **3-0-3**
Advanced topics in cost accounting. Topics include: the process costing system, lost units, joint products and by-products, standard costing and variance analysis, and an introduction to cost management systems.
Prerequisites: ACC 2914.

**2917 Federal Taxation 1** **3-0-3**
A study of Federal income tax as it relates to the individual taxpayer. The course deals in general terms with the most common aspects of taxes as they relate to the individual and to business.
Prerequisites: None.

Class-Lab-Credit

**2918 Federal Taxation 2** **3-0-3**
A study of Federal income tax. Topics include: corporations, partnerships, S
corporations, and property transactions.
Prerequisites: None.

**2919 Intermediate Accounting 1** **3-0-3**
Topics include: preparation and analysis of all four financial statements and required disclosures; special problems in accounting for current assets such as cash, accounts and notes receivable; and inventory.
Prerequisites: ACC 2913.

**2920 Intermediate Accounting 2** **3-0-3**
Advanced topics in accounting theory and practice dealing with corporations. Topics include: plant assets, investments, liabilities, contributed capital, and retained earnings.
Prerequisites: ACC 2919.

**2921 Managerial Accounting 1** **3-0-3**
Topics include: determining cost and revenue relationships for management such as cost-volume-profit analysis, managerial uses of quantitative techniques, budgeting, and financial statement analysis in managerial decision making.
Prerequisites: ACC 2913.

**2922 Computerized Accounting Applications** **2-2-3**
Topics include: integrated accounting applications such as general ledger, accounts receivable, accounts payable, payroll, fixed assets and depreciation, and inventory. Laboratory work includes the operation of accounting software to process typical business transactions.
Prerequisites: ACC 2913.

**2924 Accounting for Non-Financial Managers** **3-0-3**
A basic approach to accounting and finance so non-financial managers can participate in the organizational financial decision-making process. Topics include: understanding financial data from a user's perspective, budgeting, and problem-solving strategies to improve company finances.
Prerequisites: None.

**2941 Managerial Accounting 2** **3-0-3**
A continuation of ACC 2921. Topics include: the use of financial information in formulating management decisions.
Prerequisites: ACC 2921.

**2942 Fund Accounting for Nonprofit Organizations** **3-0-3**
Topics include: principles and practices of accounting for nonprofit organizations including transaction analysis, appropriations, encumbrances, budgeting, and financial reporting.
Prerequisites: ACC 2913.

**2943 Intermediate Accounting 3** **3-0-3**
Topics include: provision for income taxes, pensions, post-retirement benefits, leases, accounting changes, and financial statement analysis.
Prerequisites: ACC 2920.

Class-Lab-Credit

**9220 Cooperative Education Accounting** **1-40-2**
Students seeking an Associate degree participate in a paid field learning experience related to their degree program. Students must adhere to cooperative education policies and procedures to earn credit. Course may be repeated.
Prerequisites: Admitted to program, 2.0 minimum GPA.

**9240 Cooperative Education Accounting-Parallel** **1-20-1**
Students seeking an Associate degree participate in a paid field learning experience related to their degree program for a minimum of 20 hours per week. Students must also register for academic course requirements during the same term. Students must adhere to cooperative education policies and procedures to earn credit. Course may be repeated.
Prerequisites: Admitted to program, 2.0 minimum GPA.

## ART Art

**1660 Introduction to Art** **3-0-3**
An introduction to visual artistic expression in Western culture from ancient times to the present. Topics include: examination of painting, sculpture, architecture, and other appropriate media of each period for their style, function, and relationship to the historical and cultural developments of the period. Students participate in field trips to local art museums.
Prerequisites: None.

**1662 Art of the Ancient World** **3-0-3**
Art history including prehistoric, early Christian, Byzantine, Near Eastern, and Islamic Art. Topics include: exploration of philosophical, cultural, and religious attitudes and their effects on artistic expression in pottery, painting, architecture and sculpture. Field trip to museum required.
Prerequisites: None.

**1663 Art of the Medieval and Renaissance World** **3-0-3**
Art history including India, China and Japan before 1400, and European art from the Middle Ages to the Renaissance period. Topics include: exploration of philosophical, cultural, and religious attitudes and their effects on artistic expression in ceramics, paintings, architecture and sculpture. Field trip to museum required.
Prerequisites: None.

**1664 Art of the Modern World** **3-0-3**
Art history including India, China and Japan after 1100, and European and American art from the colonial period through the twentieth century. Topics include: exploration of philosophical, cultural, and religious attitudes and their effects on artistic expression in ceramics, paintings, architecture and sculpture. Field trip to museum required.
Prerequisites: None.

**1690 Drawing 1** **2-2-3**
A course on fundamental techniques of drawing in pencil and other media. Emphasizes visual observation and realistic expression.
Prerequisites: None

**1691 Drawing 2** **2-2-3**
A course on fundamental techniques of drawing, emphasizing the human figure.
Prerequisites: ART 1690.

Class-Lab-Credit

**1692 Design 1** **2-2-3**
An introduction to basic elements and techniques of design including principles of two-dimensional organization.
Prerequisites: None

## ASM Automotive Service Management

**2520 Introduction to Automotive Technology** **2-3-3**
An orientation course that familiarizes students with safe and proper procedures while using various shop chemicals, tools, fasteners, and equipment. Topics include: ASE certification and customer concerns.
Prerequisites: None.

**2521 Automotive Service Desk Operations** **2-2-3**
A course on the duties and responsibilities of an automotive service advisor. Topics include: customer interactions, working with technicians and other dealer departments, preparing labor and parts estimates, completing automotive repair orders, and using shop and administrative software packages.
Prerequisites: ENG 1010 or instructor consent.

**2522 Fundamentals of Automotive Service Management** **2-2-3**
A course on the duties and responsibilities of an automotive service manager. Topics include: the application of management techniques to the automotive service environment, directing the operation of an automotive service facility, determining overhead and equipment costs, and determining workforce needs and training.
Prerequisites: MGT 2967 or MGT 2965; MKT 2901, and ASM 2521.

**2525 Engine Fundamentals 1** **2-3-3**
A general course on conventional engine repairs. Topics include: various components and parts such as timing belts, camshafts, lifters, head gaskets, oil pumps, manifold valves, flywheels, and gasket materials.
Prerequisites: None.

**2526 Engine Fundamentals 2** **2-3-3**
Students address and practice total engine replacement compared to engine replacement with short or long blocks as an option to engine overhaul. Students complete cooling system service during removal and replacement of the engine.
Prerequisites: ASM 2525.

**2527 Engine Rebuild** **2-3-3**
Topics include: internal combustion engine cylinder block and head rebuilding procedures, hands-on engine disassembly, failure diagnosis, cleaning, measuring, machining, and assembly.
Prerequisites: ASM 2526.

**2528 Outdoor Power Equipment Service and Repair** **2-2-3**
A course on the maintenance, service, and repair of gasoline and diesel powered machinery including lawn, turf, and gardening type power equipment. Topics include: scheduled maintenance, troubleshooting of problems, and repairs of commonly used equipment. Students gain hands-on experience in the inspection, teardown, and repair of various types of equipment including such items as mowers, trimmers, chain saws, pumps, and small tractors.
Prerequisites: LH 3510 or ASM 2525 or instructor consent.

**2530 Engine Performance 1** **2-3-3**
Topics include: engine mechanical testing procedures such as cylinder power balance, compression, and cylinder leakage testing; and the theory, diagnosis, and repair of distributor-type ignition systems.
Prerequisites: ASM 2525, ASM 2540.

**2531 Engine Performance 2** **2-3-3**
A course on the onset, theory, diagnosis, and repair of computer-controlled fuel, ignition, and emission systems. Topics include: hands-on trouble tree diagnosis and repair of these systems using computer-enhanced fault detection codes, stationary diagnostic equipment, and hand-held scanners.
Prerequisites: ASM 2530.

**2532 Engine Performance 3** **2-3-3**
An advanced course on fuel injection and emission control system failures and diagnosis. Topics include: a systematic approach to diagnosing intermittent driveability complaints, distributorless ignition problems, and computer-controlled electronic failures.
Prerequisites: ASM 2531.

**2535 Automatic Transmission 1** **2-3-3**
An introduction to basic automatic transmission testing and service procedures. Topics include: diagnosing unusual fluid usage, performing visual inspection, pressure testing, servicing filters, replacing external seals and bushings, checking condition and alignment of mounts, and removing and installing transmissions and transaxles.
Prerequisites: None.

**2536 Automatic Transmission 2** **2-3-3**
Topics include: theory, operation, service, and overhaul of automatic transmissions and transaxles and diagnosis and overhaul of various manufacturers' products.
Prerequisites: ASM 2535.

**2540 Automotive Electrical Diagnosis 1** **2-3-3**
An introduction to systematic diagnosis and repair of basic electrical circuits. Topics include: step-by-step testing procedures using equipment such as a test light, self powered test light and digital multimeter.
Prerequisites: None.

**2541 Automotive Electrical Diagnosis 2** **2-3-3**
A course on the theory, diagnosis, and repair of starting and charging systems. Topics include: hands-on technical experience in wiring schematic interpretation associated with testing the electric cooling fan circuit, warning light systems, and various electronic gauge systems.
Prerequisites: ASM 2540.

Class-Lab-Credit

**2542 Automotive Electrical Diagnosis 3** **2-3-3**
Topics include: advanced theory, diagnosis, and service pertaining to printed circuits, driver information systems, cruise control systems, windshield wiper systems, heated glass, and electronic door lock mechanisms.
Prerequisites: ASM 2540.

**2545 Advanced Electrical/Hydraulics/Safety** **2-3-3**
Topics include: advanced diagnosis and service of anti-lock braking systems, digital instrumentation circuits, motor driven accessory circuits, and supplemental restraint (air bag) systems.
Prerequisites: ASM 2540.
Corequisites: ASM 2555.

**2550 Manual Transmission and Drive Line 1** **2-3-3**
Topics include: theory, diagnosis, and repair of manual transmissions and drive line components; clutches; pressure plates; constant velocity joints; universal joints; drive shafts; seals; and gaskets.
Prerequisites: None.

**2551 Manual Transmission and Drive Line 2** **2-3-3**
Topics include: theory, diagnosis, and internal repair of manual transmissions and transaxles; abnormal noise; hard shifting; jumping out of gear; gear ratios; overdrive components; and sealing methods.
Prerequisites: ASM 2550.

**2555 Braking Systems** **2-3-3**
A course on operation, inspection, diagnosis, and repair of conventional braking systems. Topics include: live vehicle performance testing on the Hunter Brake Tester, disc and drum service, lathe machining operations, measuring procedures, power assisted units, combination valves, and basic anti-lock service.
Prerequisites: None.

**2560 Suspension and Steering** **2-3-3**
Topics include: theory, operation, and service of rack and pinion units, steering gear boxes, short-long arm suspension components, MacPherson strut units, independent rear suspension parts, and other suspension and steering components; riding height measurements; caster; camber; toe; thrust line; set back; and four-wheel alignment procedures.
Prerequisites: None.

**2565 Advanced Automotive Systems** **2-3-3**
Topics include: advanced theory, diagnosis, and repair of automatic heating and air conditioning systems, active suspension systems, electronic variable steering systems, and alternative fueled vehicles.
Prerequisites: ASM 2560.
Corequisites: ASM 2570.

**2570 Air Conditioning & Heating** **2-3-3**
A course on theory, operation, diagnosis, and ozone safe service of basic air conditioning and heating systems. Topics include: hands-on performance testing, pressure and leak testing, inspection of seals and valves, recycling refrigerant, and diagnosis of electrical and mechanical controls; compressors; clutches; pressure cut-off switches; and safety devices.
Prerequisites: None.

**9221 Cooperative Education-Automotive Service Management 1-40-2**
Students seeking an Associate degree participate in a paid field learning experience related to their degree program. Students must adhere to cooperative education policies and procedures to earn credit. Course may be repeated.
Prerequisites: Admitted to program, 2.0 minimum GPA.

**9241 Cooperative Education Automotive-Parallel 1-20-1**
Students seeking an Associate degree participate in a paid field learning experience related to their degree program for a minimum of 20 hours per week. Students must also register for academic course requirements during the same term. Students must adhere to cooperative education policies and procedures to earn credit. Course may be repeated.
Prerequisites: Admitted to program, 2.0 minimum GPA.

# AVT Aviation Maintenance Technology

**8100 Aircraft Orientation 4-4-5**
Topics include: weighing aircraft, performing complete weight-and-balance check, and recording data; starting, grounding, operating, moving, servicing, and securing aircraft; identifying typical ground operation hazards; and identifying and selecting fuels.
Prerequisites: Instructor consent.

**8101 Materials & Processes 1 2-3-3**
Topics include: identifying and selecting proper hand tools for particular applications; hand forming, laying out, and bending sheet metal; and performing precision measurements.
Prerequisites: Instructor consent.

**8102 Aerodynamics & FAA Regulations 3-2-3**
Students must demonstrate ability to read, comprehend, and apply information contained in FAA and manufacturers aircraft maintenance specifications, data sheets, manuals, publications and related Federal Aviation Regulation, Airworthiness Directives, and Advisory Material.
Prerequisites: Instructor consent.

**8106 Aircraft Drawings 2-2-2**
Topics include: using aircraft drawings, symbols and system schematics; drawing sketches of repairs and alterations; and using blueprint information, graphs, and charts.
Prerequisites: AVT 8100.

**8107 Materials & Processes 2 4-6-6**
Topics include: fabricating and installing rigid and flexible fluid lines and fittings; identifying and selecting appropriate nondestructive testing methods; performing dye penetrant, eddy current, ultrasonic, and magnetic particle inspections; performing basic heat-testing processes; identifying and selecting aircraft hardware and materials; and inspecting and checking welds.
Prerequisites: Instructor consent, AVT 8101.

Class-Lab-Credit

**8108 Aircraft Electricity 3-2-3**
Topics include: calculating and measuring capacitance and inductance; calculating and measuring electrical power; measuring voltage, current, resistance, and continuity; determining the relationship of voltage, current, and resistance in electrical circuits; reading and interpreting aircraft electrical circuit diagrams including solid state devices and logic functions; and inspecting and servicing batteries. Material covered in PHY 2221 is helpful in completing this course.
Prerequisites: Instructor consent.

**8109 Cleaning & Corrosion Control 2-3-3**
Topics include: identifying and selecting cleaning materials; inspecting, identifying, removing, and treating aircraft corrosion; and performing aircraft cleaning.
Prerequisites: Instructor consent.

**8130 Airframe Structures 1 3-7-5**
Topics include: servicing and repairing wood structures; identifying wood defects; inspecting wood structures; selecting and applying fabric and fiberglass covering materials; inspecting, testing, and repairing fabric and fiberglass; applying trim, letters, and touch-up paint; identifying and selecting aircraft finishing materials; applying finishing materials; inspecting finishes and identifying defects; inspecting bonded structures; and inspecting, testing, and repairing fiberglass, plastics, honeycomb, composite, and laminated primary and secondary structures.
Prerequisites: AVT 8102, AVT 8107.

**8131 Welding Processes 1-4-2**
Topics include: welding magnesium and titanium; soldering stainless steel; fabricating tubular structures; soldering, brazing, gas-welding, and arc-welding steel; and welding aluminum and stainless steel.
Prerequisites: Instructor consent, AVT 8107.

**8132 Aircraft Electrical & Generating Systems 4-6-6**
Topics include: repairing and inspecting aircraft electrical system components; crimping and splicing wiring to manufacturer specifications; repairing pins and sockets of aircraft connectors; inspecting, troubleshooting, servicing, and repairing alternating and direct current electrical systems; inspecting, checking, and troubleshooting constant speed and integrated speed drive generators; installing, checking, and servicing airframe electrical wiring, controls, switches, indicators, and protective devices; and inspecting, checking, troubleshooting, and servicing landing gear position indicating and warning systems.
Prerequisites: Instructor consent, AVT 8102, AVT 8106, AVT 8108.

**8140 Airframe Structures 2 3-7-5**
Topics include: selecting, installing, and removing special fasteners for metallic, bonded, and composite structures; inspecting, checking, servicing, and repairing windows, doors, and interior furnishings; inspecting and repairing sheet metal structures; and installing conventional rivets.
Prerequisites: Instructor consent, AVT 8102, AVT 8107.

Class-Lab-Credit

**8142 Assembly & Rigging 3-7-5**
Topics include: rigging rotary- and fixed-wing aircraft; checking alignment of structures; assembling aircraft components including flight control surfaces; balancing, rigging, and inspecting movable primary and secondary flight control surfaces; and jacking aircraft.
Prerequisites: Instructor consent, PHY 2222, AVT 8102, AVT 8107.

**8143 Airframe Hydraulic & Pneumatic Systems 1-4-2**
Topics include: repairing hydraulic and pneumatic power systems components; identifying and selecting hydraulic fluids; and inspecting, checking, servicing, troubleshooting, and repairing hydraulic and pneumatic power systems.
Prerequisites: Instructor consent, MAT 1191, PHY 2222, AVT 8107.

**8150 Airframe Electronic and Instrument Systems 4-6-6**
Topics include: inspecting, checking, servicing, troubleshooting, and repairing electronic flight instrument systems and mechanical and electrical heading, speed, altitude, temperature, pressure, and position indicating systems including the use of built-in test equipment; installing instruments and performing a static pressure system leak test; and inspecting, checking, and servicing navigation systems, including VHF passenger aircraft VOR, ILS, LORAN.
Prerequisites: Instructor consent, AVT 8132, AVT 8140.

**8151 Landing Gear Systems 3-7-5**
Topics include: inspecting, checking, servicing and repairing landing gear, retraction systems, shocks, struts, brakes, wheels, tires, and steering systems; and inspecting, checking, troubleshooting, and servicing landing gear position indicating and warning systems.
Prerequisites: Instructor consent, AVT 8143.

**8152 Airframe Inspection 1-4-2**
Topics include: performing airframe and powerplant conformity and airworthiness inspection.
Prerequisites: Instructor consent, MAT 1192, PHY 2223, AVT 8140, AVT 8142.

**8154 Airframe Systems 4-6-6**
Topics include: inspecting, checking, troubleshooting, and repairing the following systems and components: heating, cooling, air conditioning, pressurization, air cycle machines, oxygen, fuel dump, fuel system components, fluid quantity indicating pressure fueling systems, fluid pressure and temperature warning, airframe ice and rain control, fire detection and extinguishing, smoke and carbon monoxide detection systems; and performing fuel system management transfer and refueling.
Prerequisites: PHY 2222, AVT 8140.

**8155 Airframe Comprehensive 2-1-2**
A comprehensive study and review of all required material preparing students for the comprehensive examination. Students must demonstrate the proficiency required to be awarded the degree and be named a candidate for the Federal Aviation Agency written test.
Prerequisites: Instructor consent, all general and airframe courses.

Class-Lab-Credit

**8160 Powerplant Theory & Maintenance 1 5-5-7**
An introduction to the design, manufacture, and overhaul of aircraft reciprocating engines. Topics include: overhaul and inspection of an opposed reciprocating engine.
Prerequisites: MAT 1191, PHY 2222, AVT 8102.

**8161 Powerplant Lubrication 3-2-4**
Topics include: identifying and selecting proper lubricants; inspecting, checking, servicing, troubleshooting, and repairing reciprocating and turbine engine lubrication systems; identifying and selecting propeller lubricants.
Prerequisites: Instructor consent, PHY 2221, AVT 8102, AVT 8106 .
Corequisites: AVT 8160.

**8162 Propellers 4-4-4**
Topics include: inspecting, checking, servicing, and repairing propeller synchronizing and ice control systems and balance propellers; repairing propeller control system components; inspecting, checking, servicing, and repairing fixed pitch constant speed and feathering propellers and propeller governing systems; and installing and repairing propellers.
Prerequisites: Instructor consent, MAT 1191, PHY 2221, AVT 8109.
Corequisites: AVT 8161.

**8170 Powerplant Theory & Maintenance 2 5-5-7**
Topics include: inspecting and repairing a radial engine; installing, troubleshooting, and removing reciprocating and turbine engines; installing and troubleshooting auxiliary powerplants; and performing powerplant conformity and airworthiness inspections.
Prerequisites: AVT 8160.

**8171 Powerplant Fuel Metering Systems 1 5-5-5**
Topics include: inspecting, checking and servicing water injection systems; overhauling a carburetor; repairing fuel metering components; inspecting, checking, servicing, troubleshooting, and repairing reciprocating carburetor systems, induction manifolds, and reciprocating fuel injection systems; and troubleshooting and inspecting turbine fuel metering systems.
Prerequisites: Instructor consent, AVT 8100, AVT 8107.

**8172 Ignition Systems 4-6-6**
Topics include: overhauling magneto and ignition harnesses; repairing engine ignition system components; inspecting, checking, servicing, troubleshooting, and repairing powerplant ignition systems and turbine ignition and starting systems.
Prerequisites: Instructor consent, AVT 8108.

**8180 Engine Systems & Inspection 5-5-5**
Topics include: inspecting, checking, troubleshooting, servicing, and repairing engine induction, cooling, exhaust, and electrical systems and components.
Prerequisites: Instructor consent, AVT 8101, AVT 8108.

**8181 Engine Inspection 4-4-5**
Topics include: inspecting, checking, servicing, and repairing reciprocating and turbine engines and engine installations.
Prerequisites: None.

Class-Lab-Credit

**8182 Engine Instruments & Fire Protection 2-3-3**
Topics include: inspecting, checking, servicing, troubleshooting, and repairing engine temperature, pressure, and RPM indicating systems; inspecting and repairing fire detection systems; and repairing engine electrical systems.
Prerequisites: Instructor consent, AVT 8108.

**8183 Powerplant Theory & Maintenance 3 5-5-7**
Topics include: overhauling turbine engines.
Prerequisites: PHY 2222, AVT 8170.

**8185 Powerplant Comprehensive 2-1-2**
A comprehensive study and review of all required material preparing students for the comprehensive examination. Students must demonstrate the proficiency required to be awarded the degree and be named a candidate for the Federal Aviation Agency written test.
Prerequisites: Instructor consent, all general and powerplant courses.

**8190 Aviation Make-Up Var-Var-Var**
An opportunity for students to make up FAA required time. Laboratory, written, or reading requirements or extra time on lab projects may be performed during this time.
Prerequisites: None.

**8191 General Comprehensive 4-0-4**
A course that improves student performance on the FAA general written, oral, and practical tests. Topics include: FARs, physics, electricity, and weight and balance.
Prerequisites: Program chair consent.

**8199 Aviation Project Var-Var-Var**
A variable combination of aviation lab projects and theory subjects offered to address particular needs of aviation students in atypical situations.
Prerequisites: Program chair consent.

**8200 Avionics Orientation 3-2-4**
An introduction to the repair of avionics equipment. Topics include: avionics repair procedures for air carriers and repair stations, publications, tools, and the build-up and marking of wire bundles.
Prerequisites: None.

**8201 Avionics 1 3-2-4**
Topics include: digital electronics with a direct application to aircraft systems including servos, a review of Boolean algebra, logic gates, ARNIC Codes, and troubleshooting aircraft digital systems.
Prerequisites: AVT 8154.

**8202 Avionics 2 3-2-4**
Topics include: amplifier theory, analog communications theories as they apply to aircraft navigation, communication, intercom, public address, and passenger entertainment systems.
Prerequisites: AVT 8150, AVT 8201.

Class-Lab-Credit

**8300 Preventive Maintenance 2-2-3**
Pilots learn to identify, perform, and record maintenance and approve the return to service of their own aircraft. Topics include: changing engine oil; adjusting timing of ignition systems; cleaning, adjusting and installing spark plugs; and other basic aircraft maintenance tasks.
Prerequisites: None.

**8306 Turbojet Engine Orientation 2-2-3**
A technical elective for the pilot, avionics, and airframe certificate programs. Topics include: basic concepts of turbine engine theory, construction, and disassembly.
Prerequisites: None.

**8310 Private Pilot Theory 3-0-3**
Prepares students for the FAA Private Pilot Written Test. Topics include: Federal Aviation Regulations for pilots, navigation, weight and balance calculations, meteorology, basic aerodynamics, flight controls, and aircraft systems.
Prerequisites: None.

**8311 Private Pilot Flight Lab 2-4-4**
Prepares students for the Private Pilot Flight Test. Examples of flight maneuvers include: takeoffs, landings, climbs, turns, descents, slow flight stalls, traffic patterns, emergency procedures, and cross country navigation.
Prerequisites: None.
Corequisites: AVT 8310.

**8320 Instrument Pilot Theory 3-0-3**
Ground instruction for the FAA Instrument Pilot Written Test. Topics include: instruments and systems, IFR flight planning, radio aids to navigation, en route operations charts, approach and airport charts, meteorology, and instrument pilot privileges and limitations.
Prerequisites: AVT 8310, AVT 8311.

**8321 Instrument Pilot Flight Lab 2-4-4**
Prepares students for the Instrument Pilot Test. Examples of flight maneuvers include: ILS, VOR, and ADF approaches, en route procedures, holding patterns, and communication procedures.
Prerequisites: AVT 8310, AVT 8311.
Corequisites: AVT 8320.

**8330 Commercial Pilot Theory 3-0-3**
Prepares students for the FAA Commercial Pilot Written Test. Topics include: commercial pilot privileges and limitations, advanced flight maneuvers, meteorology, and complex airplane performance.
Prerequisites: AVT 8310, AVT 8311.

**8331 Commercial Pilot Flight Lab 2-4-4**
Prepares students for the Commercial Pilot Flight Test. Examples of flight maneuvers include: operation of complex airplanes and advanced flight maneuvers.
Prerequisites: AVT 8310, AVT 8311.
Corequisites: AVT 8330.

# BIO Biology

Class-Lab-Credit

**4009 General Microbiology** **3-3-4**
An introduction to principles of immunology and control of microorganisms. Topics include: microbial cell structure, metabolism, growth requirements, and ecology.
Prerequisites: BIO 4014.

**4014 Anatomy and Physiology 1** **3-2-4**
Structure and function of the human body. Topics include: anatomical terminology, physiological transport, the cell, tissue, skin, the skeletal system, and the muscular system. Laboratory includes dissection. High school biology and chemistry with a minimum of a "C" grade within seven years can substitute for prerequisites.
Prerequisites: CHE 2200, BIO 4073.

**4015 Anatomy and Physiology 2** **3-2-4**
Structure and function of the human body. Topics include: nervous system, special senses, endocrine system, blood, and the cardiovascular system. Laboratory includes dissection.
Prerequisites: BIO 4014.

**4016 Anatomy and Physiology 3** **3-2-4**
Structure and function of the human body. Topics include: respiratory system, gastrointestinal system, metabolism, renal system, fluids and electrolytes, acid-base balance, reproduction, and immune system. Laboratory includes dissection.
Prerequisites: BIO 4015.

**4018 Pharmacology** **3-0-3**
Topics include: discussion of drug therapy; pharmacokinetics; pharmacodynamics; pharmacotherapeutics; adverse drug reactions and drug interactions; and principles, terminology, modes of administration, and mechanism of action of the major drug groups.
Prerequisites: BIO 4016.

**4020 Fundamentals of Pathophysiology** **5-0-5**
An introduction to basic disease processes. Topics include: necrosis, inflammation, repair, developmental abnormalities, neoplasia, immune disorders, infectious disease, and the pathogenesis of representative diseases in each category.
Prerequisites: BIO 4014, BIO 4015, and BIO 4016 (or equivalent) or instructor consent.

**4021 Fundamentals of Pharmacology 1** **2-0-2**
An examination of clinical drug therapy, categories, and adverse reactions. Topics include: terminology, immunizing agents, narcotics/non-narcotics, NSAIDs, antianxiety, sedatives/hypnotics, antineoplastics, corticosteroids, respiratory, cardiovascular, gastrointestinal, anticoagulants, thrombolytics, and antilipemic agents.
Prerequisites: BIO 4016.

**4022 Fundamentals of Pharmacology 2** **2-0-2**
A continuation of BIO 4021. Topics include: antiinfectives and antimicrobial, endocrine, ophthalmic, antiparkinson, anticonvulsant, antidepressant, antipsychotic agents and autonomic nervous system drugs. Completion of BIO 4021 and BIO 4022 is equivalent to BIO 4018.
Prerequisites: BIO 4021.

Class-Lab-Credit

**4023 Immunology** **3-0-3**
A study of structure and function of the immune system. Topics include: antigen, antibody, lymphocytes, serology complement, immune disease and transplant reactions.
Prerequisites: BIO 4016, CHE 2236.

**4071 Concepts of Biology 1** **3-2-4**
A study of basic biology principles from the molecular to the cellular level. Laboratory sessions reinforce lecture topics. For non-biology majors who are fulfilling a science requirement or for students who need to meet anatomy and physiology prerequisites.
Prerequisites: None.

**4072 Concepts of Biology 2** **3-2-4**
A course for non-biology majors who are fulfilling a science requirement or for students who need to meet anatomy and physiology prerequisites. Topics include: the molecular biology of the gene, evolution, plant form and function, and ecology. Laboratory sessions include field activities and a survey of the animal kingdom.
Prerequisites: BIO 4071.

**4073 Concepts of Biology 3** **3-2-4**
An introduction to the anatomy and physiology of animals, with emphasis on human organ systems. Includes laboratory dissection of the fetal pig. For non-biology majors who are fulfilling a science requirement or for students who need to meet anatomy and physiology prerequisites.
Prerequisites: BIO 4071 or instructor consent.

**4074 Human Disease** **3-0-3**
An overview of disease in the human body. Topics include: principles of disease and diseases of the various organ systems.
Prerequisites: BIO 4073 or instructor consent.

**4075 Foundations of Exercise Science** **3-2-4**
An introduction to how the human body responds and adapts to exercise and physical training. Laboratory experiences include testing and measurement related to exercise and fitness.
Prerequisites: BIO 4073.

**4081 Biology 1** **3-4-5**
An introduction to basic biological principles. Topics include: the chemistry of life, cell structure and metabolism, and the molecular basis of reproduction and inheritance. Laboratory sessions emphasize experimental design and critical thinking. This course is for Associate of Science students or pre-professional students wishing to transfer as biology majors.
Prerequisites: High school biology with a minimum of C grade or BIO 4071.

**4082 Biology 2** **3-4-5**
A survey of the animal kingdom. Topics include: the major animal phyla and their taxonomic and evolutionary relationships and animal organ systems with emphasis on comparative strategies within the animal kingdom. Laboratory sessions include animal dissections. This course is for Associate of Science students or pre-professional students wishing to transfer as biology majors.
Prerequisites: BIO 4081.

Class-Lab-Credit

**4083 Biology 3** **3-4-5**
A survey of the plant kingdom. Topics include: the major plant divisions within the evolutionary context of adaptation to terrestrial environments, classical genetics, and ecology. Laboratory sessions reinforce lecture topics through experiments and field activities. This course is for Associate of Science students or pre-professional students wishing to transfer as biology majors.
Prerequisites: BIO 4082.

**4091 Comparative Anatomy** **3-4-5**
A comparative study of cordate anatomy. Topics include: adaptive specializations and evolutionary trends in the structure and function of vertebrates. Laboratory sessions include dissection of selected vertebrates.
Prerequisites: BIO 4083.

**4092 Cell Biology** **3-4-5**
A lecture and laboratory investigation of the ultrastructure and biochemical functions of prokaryotic and eukaryotic cells. Topics include: enzyme kinetics, membrane function, metabolic pathways, and topics in molecular genetics.
Prerequisites: BIO 4083.

**4093 Genetics** **3-4-5**
Topics include: principles of classical, molecular, and population genetics. Laboratory sessions introduce experimental approaches used to investigate plant and animal heredity and the molecular aspects of gene function.
Prerequisites: BIO 4083.

**4095 Environmental Science** **3-4-5**
Topics include: the interrelationships between organisms and their natural environments, and individual, population, and community interactions. Laboratory sessions introduce techniques for the analysis of aquatic and terrestrial ecosystems.
Prerequisites: BIO 4083 or instructor consent.

# BMT Biomedical Engineering Technology

**7739 Introduction to Biomedical Information Systems and Technology** **2-3-3**
A survey of the field of Biomedical Engineering Technology and the role of the BMET in the hospital. Topics include: organization of the hospital, regulations, professional certifications, registrations, ethics, and professionalism. Students use computers as biomedical department tools.
Prerequisites: None.
Corequisites: EET 7701 or EET 7710 and MAT 1161.

**7749 Biomedical Instrumentation 1** **3-3-4**
A course in basic medical instrumentation. Topics include: man-to-machine interface, medical terminology, hospital organization, heart and circulatory system, electrodes, transducers, bioelectric amplifiers, EKGs, mechanical recorders, ICUs and CCUs, electrical safety, and electro-surgery units.
Prerequisites: BIO 4073, CPET 7717, EET 7730, CPET 7738, BMT 7739.

Class-Lab-Credit

**7759 Biomedical Instrumentation 2** **3-3-4**
A survey of the more complex and specialized medical devices used for patient care and diagnosis. Topics include: advanced equipment malfunction isolation and test instrumentations; maintenance management such as records, stock level optimization, shop layout, forms, and technician duties; and ethics related to biomedical equipment servicing.
Prerequisites: BMT 7749.
Corequisites: MCH 4000.

# BT Business

**9200 Professional Practices** **1-0-1**
A course that prepares students for the cooperative education interview process, heightens student awareness of work ethics, and provides skills that ensure professional success.
Prerequisites: None.

# BUS Business

**1999 Special Problems Seminar** **Var-Var-Var**
Individual study and special projects pertaining to the particular technology that the student is enrolled in. Open to fourth and fifth term students by special arrangement with the Coordinator and Dean of Business Technologies.
Prerequisites: None.

**2925 Business Principles** **3-0-3**
Topics include: a study of the nature of business, forms of business ownership, entrepreneurship, principles in finance, global business, management, marketing, ethics, and union-management relations.
Prerequisites: None.

**2973 Business Ethics** **3-0-3**
An introduction to business ethics. Topics include: truth-in-advertising, whistleblowing, environmental protection, corporate disclosure, discrimination, finance and banking, computer crime, and workers' rights.
Prerequisites: None.

**3094 Workshops in Business** **Var-Var-Var**
Consideration and study of selected issues and topics in the business technologies area designed to meet current needs. Content and emphasis vary from year to year.
Prerequisites: None.

**9222 Cooperative Education Business Management/Marketing Management** **1-40-2**
Students seeking an Associate degree participate in a paid field learning experience related to their degree program. Students must adhere to cooperative education policies and procedures to earn credit. Course may be repeated.
Prerequisites: Admitted to program, 2.0 minimum GPA.

**9228 Cooperative Education Pre-Business Administration** **1-40-2**
Students seeking an Associate degree participate in a paid field learning experience related to their degree program. Students must adhere to cooperative education policies and procedures to earn credit. Course may be repeated.
Prerequisites: Admitted to program, 2.0 minimum GPA.

**9230 Cooperative Education Seminar 1** **3-0-3**
An alternative to participating in the cooperative education program. This course gives students an opportunity to enhance their employment options in their chosen field. Students must attain a grade of C or better to pass this course.
Prerequisites: Co-op coordinator consent.

**9231 Cooperative Education Seminar 2** **3-0-3**
An alternative to participating in the cooperative education program. This course gives students an opportunity to enhance their employment options in their chosen field. Students must attain a grade of C or better to pass this course.
Prerequisites: Co-op coordinator consent.

**9232 Cooperative Education Seminar 3** **4-0-4**
An alternative to participating in the cooperative education program. This course gives students an opportunity to enhance their employment options in their chosen field. Students must attain a grade of C or better to pass this course.
Prerequisites: Co-op coordinator consent.

**9233 Business Competencies** **2-0-2**
A course that helps students develop exit competencies and skill sets necessary to function successfully in business and society. The course contains a mandatory community service component. Students must receive a grade of C or better to pass the course.
Prerequisites: BT 9200 and all co-op credit hours required by program and/or co-op seminars or co-op coordinator consent.

**9234 Business Competencies 1** **1-0-1**
A course that helps students develop exit competencies and skill sets necessary to function successfully in business and society. The course contains a mandatory community service component. Students must receive a grade of C or better to pass the course.
Prerequisites: BT 9200 and all co-op credit hours required by program and/or co-op seminars or co-op coordinator consent.

**9235 Business Competencies 2** **1-0-1**
A course that helps students develop exit competencies and skill sets necessary to function successfully in business and society. The course contains a mandatory community service component. Students must receive a grade of C or better to pass the course.
Prerequisites: BT 9200 and all co-op credit hours required by program and/or co-op seminars or co-op coordinator consent.

**9242 Cooperative Education**
**Business/Mkt. Mgt. Parallel** **1-20-1**
Students seeking an Associate degree participate in a paid field learning experience related to their degree program for a minimum of 20 hours per week. Students must also register for academic course requirements during the same term. Students must adhere to cooperative education policies and procedures to earn credit. Course may be repeated.
Prerequisites: Admitted to program, 2.0 minimum GPA.

Class-Lab-Credit

**9248 Cooperative Education**
**Pre-Business Administration - Parallel** **1-20-1**
Students seeking an Associate degree participate in a paid field learning experience related to their degree program for a minimum of 20 hours per week. Students must also register for academic course requirements during the same term. Students must adhere to cooperative education policies and procedures to earn credit. Course may be repeated.
Prerequisites: Admitted to program, 2.0 minimum GPA.

# CAR Career Development

**9002 College Success Strategies** **1-0-1**
A course that introduces students to Cincinnati State, the College's resources, and its expectations for new students. Topics include: making a successful transition to college life, study skills and time management, library skills, advising and registration, academic financial planning, co-op/clinical opportunities, students' rights and responsibilities, and how to read a college catalog. This course earns college credit, but it does not fulfill general studies or core course requirements for degree or certificate programs. This course must be completed within the first 18 credit hours taken at Cincinnati State.
Prerequisites: None.

**9014 College Study Skills** **4-0-4**
A comprehensive course for students who would like to get the most out of their studies. Topics include: developing positive attitudes toward good study habits and improving basic study skills such as note-taking, memory, preparing for examinations.
Prerequisites: None.

**9015 Math Anxiety Study Skills** **1-1-1**
Math anxiety strategies for a nontraditional math program. Topics include: incorporating facets of self-awareness, self-improvement, and appropriate math study skills.
Prerequisites: None.

# CET Civil Engineering Technology

**7024 Architectural Drafting** **3-4-4**
An introduction to architectural drafting concepts and review of the residential construction process. Topics include: preparing residential working drawings; architectural symbols, details, abbreviations, dimensioning methods, and an overview of building codes. Students investigate the four major building materials used in construction: steel, concrete, wood, and masonry.
Prerequisites: None.

**7025 Surveying Drafting** **2-3-3**
An introduction to surveying drafting. Topics include: contour maps from field notes, cross sections, grading plans, volume calculations, deed abstracts, boundary plats, and building permit drawings. Students should complete MAT 1171 prior to or concurrently with this course.
Prerequisites: CET 7024, CET 7910.

**7026 Architectural Design** **2-3-3**
A continuation of CET 7024. Topics include: the detail and information required in a complete professional set of architectural working drawings and designing a set of architectural working drawings for a small office building.
Prerequisites: CET 7024, CET 7927.

Class-Lab-Credit

**7901 CET Measurement Skills** **1-2-2**
A course on fundamental CET-related skills. Topics include: civil technician skills such as linear and angular dimensioning, soil density, material estimation, plotting, and mapping.
Prerequisites: MAT 1161.

**7910 Surveying Measurements** **3-2-4**
An introduction to field measurement techniques. Topics include: units, field note format, instrument usage, taping, differential leveling, total station use including horizontal and vertical angles, bearing and azimuths, and construction layout including an introduction to GPS.
Prerequisites: None.
Corequisites: MAT 1171 or MAT 1191.

**7913 Introduction to Civil Engineering Technologies** **1-2-2**
An introduction and orientation to the Civil Engineering Technology program and to the CET profession. Methods include: discussion, presentations, exercises, and laboratory activities. Students use word processing, spreadsheet, and presentation software to prepare assignments.
Prerequisites: None.

**7916 Construction Materials** **3-0-3**
An introduction to the fundamental uses and engineering properties of construction materials. Topics include: steel, concrete, wood, and asphalt.
Prerequisites: None.

**7917 Properties of Concrete** **2-2-3**
A course on the behavior and characteristics of concrete and common testing procedures. Topics include: concrete properties, ACI mix design, and ASTM standards.
Prerequisites: None.

**7918 Properties of Soil** **2-2-3**
A course on the behavior and characteristics of soil and standard testing procedures. Topics include: soil exploration, sampling, compaction, and strength.
Prerequisites: None.

**7920 Surveying Calculations** **2-3-3**
A course on the problem-solving calculations central to all surveying topics. Topics include: traverse closure, area, and coordinate calculations. Includes both manual and computer solutions.
Prerequisites: CET 7910.

**7927 CAD 1 (CET)** **2-3-3**
Topics include: CAD drawing, modifying, and dimensioning commands as they apply to civil engineering drawings; and other CAD techniques such as paper space, model space, blocks, and attributes.
Prerequisites: Admitted to program or program chair consent, CET 7024, CET 7935.

**7928 CAD 2 (CET)** **1-6-3**
A continuation of CET 7927. Topics include: isometric and three-dimensional drawing techniques, surfacing, menu customization, DXF files, and slide and script commands for presentations.
Prerequisites: CET 7927.

Class-Lab-Credit

**7930 Route Surveying** **4-2-5**
A course in the elements of road and right-of-way surveying. Topics include: calculation and layout of horizontal curves, vertical curves, spiral transition curves, super-elevation, and typical sections. Includes extensive use of coordinate calculations using CAD design software in practical applications.
Prerequisites: CET 7025, CET 7920.

**7931 Light Construction** **3-2-4**
An introduction to the concepts of residential and light commercial construction, drawing upon the building code and other sources. Topics include: construction methods such as wood framing, brick veneer, lightweight steel, and masonry construction; structural member selection; footing design; and typical construction detailing.
Prerequisites: None.

**7934 Statics (CET)** **3-2-4**
Application of the principles of physics to engineering analysis. Topics include: force analysis and equilibrium of civil engineering structures, centroids, moment of inertia, and static friction.
Prerequisites: MAT 1191, PHY 2291.

**7935 Introduction to CAD (CET)** **2-3-3**
An introduction to microcomputer systems, including the Windows operating system. Topics include: fundamentals of CAD software and GUI interaction, with emphasis on draw, display, modify, plot, layer, utility, and setting commands.
Prerequisites: Admitted to program or program chair consent.
Corequisites: MAT 1171 or MAT 1191.

**7936 HVAC Design Systems** **3-2-4**
A study of heating, ventilation, and air conditioning (HVAC) topics including: heat loss and heat gain design, distribution (ductwork design), equipment selection, an introduction to controls and HVAC effect on electrical loads, and air quality issues.
Prerequisites: MAT 1191, CET 7928, CET 7964, CET 7026.
Corequisites: CET 7963.

**7940 Elements of Land Surveying** **3-3-4**
An advanced course in the elements of boundary surveys. Topics include: document research, deed descriptions, U.S. public lands survey system, Ohio land subdivisions, and legal aspects of land surveys.
Prerequisites: CET 7920.

**7941 Computer Integrated Construction (CIC)** **1-5-3**
An introduction to three construction software packages. Students prepare estimates using Timberline Precision Estimating Extended, create schedules using Primavera Project Planner, and perform project controls with ProLog Manager.
Prerequisites: None.
Corequisites: CET 7942, CET 7943.

**7942 Construction Management 1** **2-3-3**
The evolution of the construction management process and a comparison of this process to the traditional method of general contracting. Topics include: advantages and disadvantages of construction management and services the construction manager provides. Students examine the concepts of CPM scheduling and manually create schedules for various projects.
Prerequisites: None.

**7943 Construction Estimating** **2-3-3**
A course on construction estimating. Topics include: quantity takeoff, types of estimates, bidding procedures, types of contracts, selecting the contractor, contract law, feasibility studies, and time value of money. Students perform a detailed manual estimate from a set of working drawings.
Prerequisites: None.

**7944 Strength of Materials (CET)** **3-2-4**
A course on the behavior and ability of engineering materials to resist forces. Topics include: Hooke's Law, temperature effects, connection analysis, beam mechanics, shear and moment diagrams, and combined stress.
Prerequisites: CET 7934.

**7947 Drainage Control Systems** **3-2-4**
An introductory course in the design of drainage systems for removal of storm runoff. Topics include: analysis of hydrologic problems by the Rational Method, hydrology, detention systems, storm sewers, open channels, culverts, and erosion control principles emphasizing practical application.
Prerequisites: MAT 1191.

**7948 Subdivision Design 1** **2-3-3**
An introduction to residential subdivision design. Topics include: general zoning and subdivision regulations such as lot, street, and easement design. Labs use CAD design software. Students should complete CET 7947 prior to or concurrently with this course.
Prerequisites: CET 7025, CET 7930.

**7949 Introduction to Geographic Information Systems 3-2-4**
An introduction to Geographic Information Systems. Topics include: basic concepts of GIS terminology, data acquisition, and applications. Students use IDRIS and ESRI software in lab. Students should complete CET 7940 prior to or concurrently with this course.
Prerequisites: CET 7935, CET 7920.
Corequisites: CET 7940.

**7950 Surveying Field Project** **1-6-3**
Specialized project utilizing fundamental theories and standard practices involved in surveying. Topics include: courthouse research, field reconnaissance and measurement, resolution, computer mapping, platting and legal description writing.
Prerequisites: CET 7930, CET 7940.
Corequisites: CET 7958.

Class-Lab-Credit

**7951 Heavy Construction** **3-2-4**
A course on heavy construction such as large commercial buildings, industrial facilities, and highway construction. Topics include: construction techniques involving heavy timbers, structural steel, reinforced concrete, and combinations thereof; and commercial construction from site work and shoring to curtain walls, glazing, and interior finishes.
Prerequisites: None.

**7953 Construction Management 2** **2-4-4**
The capstone course for the construction management major. Students draw upon and integrate knowledge from previous courses into a detailed oral and written construction management project proposal.
Prerequisites: CET 7941, CET 7942, CET 7943.

**7954 Reinforced Concrete Design** **3-2-4**
A course presenting the fundamentals of statics to reinforced concrete design. Topics include: the design of flexural and shear reinforcing in beams, the design of columns using the ACI ultimate strength design method, standard testing procedures, and the properties of concrete as a structural material.
Prerequisites: CET 7934, CET 7944, MAT 1192.

**7955 Applied Soil Mechanics** **3-2-4**
An introduction to the properties of soil as a construction material. Topics include: routine laboratory tests, soil classification, compaction, settlement, soil strength, and simplified foundation design.
Prerequisites: CET 7934, CET 7944.

**7956 Structural Steel Design** **3-2-4**
Principles of statics applied to the design of simple structures. Topics include: tension member design, column behavior and design, and simple beam design. All design conforms to LRFD per current AISC specifications. Labs utilize structural modeling and analysis software.
Prerequisites: CET 7934, CET 7944.

**7958 GIS/GPS Control Surveying 1-6-3**
Introduction to control surveying. Topics include: basic geodesy, state plane coordinate calculations, vertical control, satellite positioning and network adjustment. Students observe and adjust a horizontal control network with total stations and GPS equipment.
Prerequisites: CET 7927, CET 7930, MAT 1152.
Corequisites: CET 7950.

**7959 Subdivision Design 2** **2-3-3**
A continuation of CET 7948. Topics include: road profiles, cross-sections, sanitary and storm sewer systems, potable water systems, final grading plans, earthwork calculations, and final record plats. All plans use CAD design software for drawing and design.
Prerequisites: CET 7930, CET 7947, CET 7948.

**7963 Electrical Design Systems** **3-2-4**
A study of electrical systems in buildings. Topics include: introduction to electrical theory emphasizing design applications, power distribution (both single and three phase), simple single-lines, equipment selection, lighting protection, safety issues, and effect of electrical loads on HVAC calculations.
Prerequisites: MAT 1191, CET 7026, CET 7928, CET 7968.
Corequisites: CET 7936.

Class-Lab-Credit

**7964 Mechanical Systems** **2-3-3**
A study of various mechanical systems utilized in buildings. Topics include: water and waste systems (plumbing isometrics), fire protection, acoustics, mechanical devices such as chillers and air dryers, building management systems, and the characteristics of air as an introduction to HVAC.
Prerequisites: MAT 1191, CET 7026.
Corequisites: CET 7928, CET 7968.

**7968 Lighting Systems** **2-3-3**
A course on light sources and lighting design concepts. Topics include: illumination, foot-candles, and surface reflectance, and how these relate to room lighting; lighting calculations; appropriate luminaire selection; cost estimating; and outdoor lighting. Course work includes technical writing and a professional presentation.
Prerequisites: MAT 1191, CET 7026.
Corequisites: CET 7928, CET 7964.

**7969 Building Systems Design** **3-5-5**
Students perform a building design integrating all architectural, mechanical, electrical, plumbing, and acoustical systems into a predetermined space. Topics include: zoning, building codes, ADA requirements, pipe sizing, equipment selection, power distribution, lighting design, and water and waste systems. Students use three-dimensional CAD drawings to implement the design process and reduce system interference.
Prerequisites: CET 7964, CET 7968.
Corequisites: CET 7936, CET 7963.

**7999 Special Problems Seminar - Civil** **Var-Var-Var**
Individual and independent study and special projects pertaining to the particular technology in which the student is enrolled. The study may deal with an idea or concept not usually covered by existing courses at the College, or with a specific problem found in the industry in which the student is employed. Open to fourth and fifth term students by special arrangement with the instructor and program chair.
Prerequisites: Program chair consent.

# CHE Chemistry

**2200 Basic Chemistry** **4-2-5**
An introductory chemistry course for students with no previous experience in chemistry. Topics include: properties; structure and chemical classification of matter; use of symbols, formulas, and equations; chemical bonding; radioactivity; properties of acids, bases, salts, and solutions; naming of acids and bases.
Prerequisites: Acceptable score on chemistry placement test.

**2202 Introductory Chemistry 1** **4-2-5**
The first of a two-part sequence. Topics include: metric system properties, structure, formulas, bonding, equation writing and balancing, stoichiometry.
Prerequisites: Previous math experience equivalent to MAT 1105 or MAT 1161.

**2203 Introductory Chemistry 2** **4-2-5**
A continuation of CHE 2202. Topics include: gas laws, solution chemistry, liquid and solid states, acids, bases, salts, chemical kinetics, and chemical equilibrium. The course involves lectures with laboratory activities.
Prerequisites: CHE 2202.

Class-Lab-Credit

**2231 Fundamentals of General Chemistry** **3-3-4**
A course in college level general chemistry. Topics include: structure and properties of matter, changes in matter, chemical bonding, chemical reactions, and equilibrium.
Prerequisites: High school chemistry or CHE 2200 within 3 years.

**2232 Fundamentals of Organic Chemistry** **3-3-4**
A course in college level organic chemistry as a foundation for biochemistry. Topics include: carbon bonding, saturated and unsaturated aromatic hydrocarbons, alcohols, phenols; aldehydes, ketones, acids, and amines.
Prerequisites: High school chemistry or CHE 2200 within 3 years.

**2233 Fundamentals of Biochemistry** **3-3-4**
A course in college level biochemistry. Topics include: carbohydrates, amino acids, proteins, lipids, vitamins, enzymes, and metabolism body fluids.
Prerequisites: CHE 2232 or equivalent.

**2236 Physiological Chemistry** **3-3-4**
An introduction to physiological chemistry for the health professional. Topics include: basic organic concepts such as types of organic compounds, functional groups, and basic organic reactions; carbohydrates; proteins; lipids; nucleic acids; and metabolic cycles. It is strongly recommended that students take CHE 2231 before this course.
Prerequisites: High school chemistry or CHE 2200 within 3 years.

**2251 Freshman Chemistry 1** **4-3-5**
The first of a three-term sequence in general chemistry. Lecture topics include: measurement systems, quantitative aspects of compounds and mixtures, chemical reactions and their quantitative relationships, atomic theory, periodic table and chemical bonding. Laboratory techniques include: noninstrumental separation techniques, gravimetic analysis, solution preparation, and visible spectrophotometric analysis.
Prerequisites: High school chemistry or equivalent within 3 years.

**2252 Freshman Chemistry 2** **4-3-5**
A continuation of CHE 2251. Topics include: kinetic molecular theory of gases, liquids, and solids; solution chemistry; kinetics; equilibrium; and acid-base equilibrium. Analytical lab techniques are taught, including: solution and sample preparation, kinetics experiments, and acid-base titrations.
Prerequisites: CHE 2251.

**2253 Freshman Chemistry 3** **4-3-5**
A continuation of CHE 2252. Topics include: solubility equilibrium, thermochemistry and thermodynamics, electrochemistry, nuclear chemistry, and basic descriptive chemistry. Laboratory experiments include analysis and oxidation-reduction and complexometric titrations, potentiometry and basic organic separation and purification techniques. Other laboratory exercises may be included.
Prerequisites: CHE 2252.

**2281 Organic Chemistry 1** **3-4-5**
The first of a three-course sequence in organic chemistry. Topics include: principles of carbon chemistry, including bonding, structure, mechanisms, properties, reactions, and synthesis; and aliphatic and aromatic hydrocarbons. Laboratory experiences include general organic laboratory techniques, especially those of purification of organic compounds. It is strongly suggested that SLT 6611, SLT 6621, and SLT 6631 or the equivalent be taken prior to this course.
Prerequisites: SLT 6631 or CHE 2253.

**2282 Organic Chemistry 2** **3-4-5**
A continuation of CHE 2281. Topics include: alcohols, alkyl halides, ethers, thiois, aldehydes, and ketones; simple synthesis and analysis; and determination of purity. Laboratory experiences include classical as well as instrumental techniques.
Prerequisites: CHE 2281.

**2283 Organic Chemistry 3** **3-4-5**
A continuation of CHE 2282. Topics include: organic acids and their derivatives and amines; stereochemistry, spectroscopy, and complex mechanisms; multistep synthesis; spectrophotometric analysis; and determination of unknowns.
Prerequisites: CHE 2282.

# CLT Clinical Laboratory Technology

**4301 Introduction to the Clinical Laboratory** **2-3-3**
Topics include: clinical laboratory departments, personnel, professional issues, safety, universal precautions, basic equipment, preparation of reagents and specimens for analysis, waived tests, quality control, reporting test results, and an introduction to laboratory information systems. Prerequisites: Acceptance into tech courses CLT or Clinical Assistant Program.

**4302 Basic Hematology & Hemostasis** **1-6-3**
A course on the theory and practice of basic hematology and coagulation. Topics include: frequently performed diagnostic tests such as cell counts, examination of blood smears, platelet and reticulocyte counts, prothrombin times, and partial thromboplastin times.
Prerequisites: CLT 4301.

**4303 Basic Urinalysis/Body Fluids** **2-3-3**
A course on the physiological concepts of the formation of urine as well as its physical, chemical, and microscopic examination in the clinical laboratory. Topics include: normal renal function, pathological conditions, laboratory principles and procedures, and other body fluids of clinical significance.
Prerequisites: CLT 4301.

**4304 Clinical Chemistry** **3-6-5**
Topics include: theory and procedures of routine manual and automated chemical laboratory procedures, their quality control, and use of related instrumentation.
Prerequisites: CHE 2231, CHE 2236, CLT 4301.
Corequisites: CLT 4317.

**4305 Immunohematology** **3-6-5**
A study of blood banking theory and procedures. Topics include: inheritance of blood group determinants, donor procedures, routine ABO grouping and Rh typing, antibody screening and identification, and compatibility testing.
Prerequisites: CLT 4023, CLT 4301.

Class-Lab-Credit

**4306 Clinical Bacteriology** **3-6-5**
A study of diagnostic microbiology. Topics include: staining, cultivation, isolation, identification, and antimicrobial susceptibility testing of clinically significant aerobic bacteria; and basic principles of anaerobic bacteriology and mycobacteriology.
Prerequisites: BIO 4009, CLT 4301.

**4307 Hematology & Hemostasis 2** **2-3-3**
Topics include: abnormal hematology and hemostasis, including morphological, laboratory, and clinical features of anemias, leukemias and other blood cell disorders, and common coagulopathies.
Prerequisites: CLT 4302.

**4308 Immunochemistry** **2-3-3**
Topics include: immunochemical principles and techniques, including radial immunodiffusion, immunoelectrophoresis, enzyme-linked immunosorbent assay, serological testing, and special chemical analysis of body fluids.
Prerequisites: BIO 4023, CLT 4304.

**4309 Clinical Lab Seminar** **0-3-1**
Topics include: review of theory and practice of laboratory procedures and discussion of current developments in medical laboratory science. Includes a registry-type comprehensive exam.
Prerequisites: Completion of all CLT courses.

**4310 Clinical Mycology/Parasitology** **1-0-1**
A study of basic technology in clinical mycology and parasitology. Topics include: specimen collection and processing, principles of identification, and recognition of common fungi and parasites.
Prerequisites: BIO 4009.

**4311 Clinical Applications 1 - Hematology and Coagulation** **0-6-2**
On-campus laboratory practice in routine hematology and coagulation. Topics include: workload organization, computer skills, record keeping, quality control, routine maintenance and troubleshooting of related instrumentation, and professional behavior.
Prerequisites: CLT 4302.

**4312 Clinical Applications 2 - Clinical Chemistry and Urinalysis** **0-6-2**
On-campus laboratory practice in performance in routine manual and automated procedures in clinical chemistry and urinalysis. Topics include: workload organization, computer skills, record keeping, quality control, routine maintenance and troubleshooting of related instrumentation, and professional behavior.
Prerequisites: CLT 4303, CLT 4304.

**4313 Clinical Applications 3 - Blood Bank Serology** **0-6-2**
On-campus laboratory practice in routine blood banking and serology. Topics include: workload organization, record keeping, and quality control.
Prerequisites: CLT 4305.

**4314 Clinical Applications 4 - Clinical Microbiology 0-6-2**
On-campus laboratory experience in routine clinical microbiology procedures. Topics include: workload organization, record keeping, and quality control applied to the microbiology lab.
Prerequisites: CLT 4306, CLT 4310.

**4317 Instrumentation for the Clinical Laboratory 1-3-2**
An introduction to principles of basic instrumentation in hematology, hemostasis, and clinical chemistry. Topics include: set-up, operation, computer-instrument interfaces, routine maintenance, and quality assurance procedures for spectrophotometers, particle counters, electrodes, chromatographs, and automated discrete analyzers.
Prerequisites: CLT 4301.

**4350 Orientation to the Clinical Lab 0-10-2**
Experience in the clinical laboratory to familiarize students with laboratory organization. Topics include: specimen collection and handling with emphasis on phlebotomy experience.
Prerequisites: CLT 4301.

**4353 Clinical Laboratory Practice 1-40-6**
Students apply theories and procedures in hematology, urinalysis, and clinical chemistry in a local clinical laboratory.
Prerequisites: CLT 4311, CLT 4312, CLT 4350.

**4394 Interpretation of Laboratory Value 3-0-3**
Topics include: sample collection and analysis and reporting and interpreting results for many of the clinical laboratory tests.
Prerequisites: None.

**4398 Special Studies - CLT Var-Var-Var**
A student-initiated academic pursuit, mutually agreed upon by the student and faculty member and carried on outside the classroom. Before registration, the student must have the plan of study approved by a supervising faculty member and the Dean of Health Technologies.
Prerequisites: Instructor consent.

**4399 Special Studies - Clinical Laboratory Var-Var-Var**
A student-initiated academic pursuit, mutually agreed upon by the student and faculty member and carried on outside the classroom. Before registration, the student must have the plan of study approved by a supervising faculty member and the Dean of Health Technologies. Students receive grades of S or U for this course.
Prerequisites: None.

**9374 Parallel Cooperative Education - Clinical Laboratory Technology 1-20-1**
The Clinical Laboratory Technology student participates in a part-time paid field learning experience. This experience provides an opportunity to apply knowledge and skills acquired in class. The student must adhere to the Health Technologies Division Student Handbook and program requirements.
Prerequisites: CLT 4353, 2.0 minimum GPA.



# CM Cemetery Management

**9250 Cooperative Education Cemetery Management 1-40-2**
Students seeking an Associate degree participate in a paid field learning experience related to their degree programs. Students must adhere to cooperative education policies and procedures to earn credit. Course may be repeated.
Prerequisites: Admitted to program, 2.0 minimum GPA.

**9251 Cooperative Education Cemetery Management-Parallel 1-20-1**
Students seeking an Associate degree participate in a paid field learning experience related to their degree program for a minimum of 20 hours per week. Students must register for academic course requirements during the same term. Students must adhere to cooperative education policies and procedures to earn credit. Course may be repeated.
Prerequisites: Admitted to program, 2.0 minimum GPA.

# CMT Chemical Technology

**6611 Chemistry 1 & Quantitative Analysis 4-4-6**
The first of a three-term sequence in general chemistry emphasizing chemical analysis techniques. Topics include: measurement systems, quantitative aspects of compounds and mixtures, chemical reactions and their quantitative relationships, atomic theory, periodic table, chemical bonding, noninstrumental separation techniques, gravimetric analysis, solution preparation, and visible spectrophotometric analysis.
Prerequisites: High school chemistry or equivalent within 3 years.
Corequisites: MAT 1191.

**6619 Computer Analysis of Laboratory Data 3-0-3**
A course on the application of software as a laboratory tool for technicians. Emphasizes Excel as the data analysis package and use of Internet as a scientific literature research tool.
Prerequisites: None.

**6621 Chemistry 2 & Quantitative Analysis 4-4-6**
The second of a three-term sequence in general chemistry emphasizing chemical analysis techniques. Topics include: kinetic molecular theory of gases, liquids and solids; solution chemistry; kinetics; equilibrium; acid-base equilibrium; solution and sample preparation; kinetics; experiments; and acid-base titrations.
Prerequisites: SLT 6611.

**6630 Chemical Process Technology 3-0-3**
An introduction to the chemical process industry. Topics include: safety and environmental awareness, quality control, basic process principles, and industrial equipment.
Prerequisites: SLT 6611, SLT 6621.

**6631 Chemistry 3 & Quantitative Analysis 4-4-6**
The third of a three-term sequence in general chemistry emphasizing chemical analysis techniques. Topics include: solubility equilibruim, thermochemistry and thermodynamics, electrochemistry, nuclear chemistry, basic descriptive chemistry, oxidation-reduction and complexometric titrations, potentiometry, basic organic separation, and purification techniques.
Prerequisites: SLT 6621.

**6641 Instrumental Chemical Analysis 1** **3-3-4**
The first of a two-term sequence in the instrumental aspects of chemical analysis of inorganic and organic compounds. Topics include: specific ion analysis using selective electrodes, potentiometric titrations, gas chromatography, visible and UV spectrophotometry, infrared spectrophotometry, high performance liquid chromatography, and atomic absorption spectroscopy.
Prerequisites: CHE 2232, SLT 6631.

**6649 Chemical Technology** **2-3-3**
In this project-oriented course, students develop an experimental procedure, perform testing, apply statistical techniques, and include the data in a formal report. The project pertains to the student's technical specialty area.
Prerequisites: SLT 6629, SLT 6651.

**6651 Instrumental Chemical Analysis 2** **2-3-3**
The second of a two-term sequence in the instrumental aspects of chemical analysis of inorganic and organic compounds. Topics include: mass spectroscopy and other hyphenated techniques to be covered off campus with hands-on experience.
Prerequisites: SLT 6641.

**6698 Special Problems Seminar - SLT** **Var-Var-Var**
Study of selected topics in scientific laboratory designed to meet current needs. Content and emphasis vary from year to year.
Prerequisites: None.

# CPET Computer Engineering Technology

**CPET 7717 = IT 5281 Visual C++1**

**CPET 7718 = IT 5271 Java Programming 1**

**CPET 7727 = IT 5282 Visual C++2**

**CPET 7762 = TET 7762 Telecommunications 1**

**CPET 7767 = IT 5151 Network Communications 1**

**CPET 7775 = IT 5152 Network Communications 2**

**7705 Survey of Digital Systems** **3-2-4**
A study of digital combinational logic systems. Topics include: number systems, codes, review of Boolean algebra, logic families, logic simplification methods and implementation of logic equations using NAND and NOR gates, flip-flops, programmable logic arrays, and microprocomputer systems.
Prerequisites: None.
Corequisites: EET 7701.

**7728 Digital Combinational Logic** **3-2-4**
Topics include: number systems, codes, a review of Boolean algebra, logic families, logic simplification methods, and implementation of logic equations using NAND and NOR gates and flip-flops.
Prerequisites: None.
Corequisites: MAT 1191 or MAT 1172, EET 7710 or EET 7702 or EMT 7712.



**7738 Digital Sequential Logic** **3-3-4**
Topics include: edge-triggered circuitry, J-K flip-flops, sync and async counters, shift registers, clock circuits, monostable theory, encoders, decoders, multiplexing (time base) displays, and circuit design techniques using MSI ICs.
Prerequisites: CPET 7728.
Corequisites: EET 7720 or EET 7703 or 7722.

**7747 Computer Instrumentation** **4-2-5**
An introduction to basic transducers. Topics include: applying analog-to-digital techniques to sensors to create data acquisition systems, types of sensor-computer integration for creating intelligent stand-alone sensors, and techniques for manipulation of acquired data such as integration and differentiation. Students construct sensor-computer interfaces and write software to acquire sensor data.
Prerequisites: CPET 7748.

**7748 Microprocessor Systems 1** **3-3-4**
Microprocessor hardware and software for the Motorola 68000 family of devices. Topics include: basic microprocessor hardware, number systems, software architecture, introduction to the 68000 instruction set, addressing modes, subroutines, an introduction to serial and parallel ports, and simple serial data transmission. Students write simple programs using assembly language and demonstrate simple parallel input and output.
Prerequisites: CPET 7728.

**7757 Digital Communications** **3-2-4**
A course on basic transmission media and protocols used in data communications. Topics include: a variety of media types such as twisted pairs, coax, fibers, and infrared; protocols such as RS232, S423, Centronics interface, modem concepts, and synchronous codes.
Prerequisites: EET 7720, CPET 7738.
Corequisites: EET 7730.

**7768 Microprocessor Systems 2** **3-3-4**
A continuation of CPET 7748. Topics include: a study of microprocessor systems signals and timing; memory and I/O expansion techniques; interrupts; event processing; and micro application including keyboard input, display output, analog-to-digital input and digital-to-analog output. Students build and test expansion circuitry for the 68000 microprocessor.
Prerequisites: CPET 7738, CPET 7748.

# CRJ Criminal Justice

**1250 Introduction to Criminal Justice** **3-0-3**
An overview of the American criminal justice system, its development and elements. Topics include: police, court, corrections, constitutional issues, citizen participation, and current practice.
Prerequisites: SOC 1521.

**1251 Introduction to Policing and Law Enforcement** **3-0-3**
An overview of structure and practices of policing in the US. Topics include: the relationship of police agencies to other aspects of the justice system, effects of technology, diversity, drug enforcement, cynicism, corruption, reform, and community relations.
Prerequisites: CRJ 1250.

Class-Lab-Credit

**1252 Introduction to Corrections** **3-0-3**
An introduction to the history, principles, and practices of the corrections system. Topics include: an overview of the major components of incarceration, parole, and probation; developing practices; the operations of jails and prisons; and alternatives to incarceration including community-based programs.
Prerequisites: CRJ 1250.

**1253 Criminal Courts & Procedures 1** **3-0-3**
An overview of the American legal system from a criminal justice perspective. Topics include: the basic procedures and applications of criminal law through the US Constitution, Bill of Rights, and recent case law.
Prerequisites: CRJ 1250.

**1254 Criminal Courts & Procedures 2** **3-0-3**
An overview of the American legal system from a criminal justice perspective. Topics include: applying the knowledge and skills from CRJ 1253 with emphasis on case law and court procedures.
Prerequisites: CRJ 1253.

**1255 Criminal Law** **3-0-3**
An overview of the American legal system from a criminal justice perspective. Topics include: the basic elements of criminal law as defined by the Ohio Revised Code.
Prerequisites: CRJ 1254.

**1256 Criminal Investigation Skills** **3-0-3**
An overview of basic investigation skills. Topics include: criminalistics, forensics, evidence types, procedures for handling, and admissibility.
Prerequisites: CRJ 1250.

**1257 Juvenile Delinquency** **3-0-3**
A comprehensive study of juvenile delinquency and the juvenile court system.
Prerequisites: SOC 1521.

**1298 Workshops in Criminal Justice** **Var-Var-Var**
Study of selected topics in criminal justice designed to meet current needs. Content and emphasis vary from year to year.
Prerequisites: None.

**1299 Special Studies-Criminal Justice** **Var-Var-Var**
Individual study and special projects pertaining to the student's area of concentration. This course is open to students wishing advanced standing or independent study. Students arrange this course with the advisor; requires consent of the Dean of Humanities and Sciences.
Prerequisites: None.

# CUL Culinary Arts

**2822 Basic Cooking 1** **2-6-4**
Topics include: kitchen skills development; methods of cookery; and soup, sauce, starch, vegetable, and meat cookery. Students gain these skills through hands-on lab experience.
Prerequisites: None.
Corequisites: CUL 2831.

Class-Lab-Credit

**2823 Basic Cooking 2** **2-4-4**
A course on menu compilation for the food service industry. Students learn the correct working techniques for set-up and service in a realistic restaurant environment.
Prerequisites: CUL 2822.

**2824 Advanced Cooking 1** **2-3-3**
Topics include: cold foods, pates, terrines, galantines, and other buffet preparations as used in the industry; and ice carving and other decoration techniques. Students present a grand buffet at the end of the term.
Prerequisites: CUL 2823.

**2825 Pastry & Confectionery** **4-6-6**
Topics include: classical dessert-making, pastry and confectionery for the hotel and restaurant industry, dessert menu planning, correct orientation and familiarity with the patisserie environment, and basic pastry preparations.
Prerequisites: CUL 2824.

**2826 Advanced Cooking 2** **4-6-6**
An advanced course on professional cooking techniques. Topics include: menu planning and preparation, recipe skills, cooking methods, service planning and coordination. Course work includes presentation of full course menu items within a prescribed time period.
Prerequisites: CUL 2822, CUL 2823, CUL 2824, CUL 2825.

**2827 Butchery and Fish Management** **2-3-3**
A study of the handling of meat, poultry, and seafood in the food service industry. Topics include: product identification, inspection and grading, wholesale purchasing, and proper cutting techniques.
Prerequisites: None.

**2831 Theory of Cooking** **3-0-3**
Topics include: principles and methods of cookery; soup, sauce, starch, vegetable, and meat cookery; and basic bakeshop production.
Prerequisites: None.
Corequisites: CUL 2822.

**2832 Preparation and Cooking** **2-3-3**
A cooking lab emphasizing cold food preparation, breakfast and lunch cookery, plate design, and buffet presentation.
Prerequisites: None.

**2833 Basic Baking** **2-3-3**
Topics include: formulating baking recipes and measuring and selecting ingredients for baking formulas; and preparing various basic pastry, yeast, and cake items and their application to the hotel and restaurant industry.
Prerequisites: None.

**2834 Advanced Baking** **2-3-3**
Topics include: preparing flour confectionery desserts and cold preparations suitable for the hotel and restaurant industry; assembling and decorating various types of cakes and gateau; and making cookies, petit fours, and small confectionery items.
Prerequisites: None.

**2835 Production Cooking** **3-3-4**
The culminating food preparation course for the Culinary Certificate student. Through laboratory experience, students work in the various stations in a commercial kitchen and assist in planning, organizing, and implementing catered service, banquet service, and cafeteria service.
Prerequisites: CUL 2822, CUL 2832, CUL 2833, CUL 2834.

## CULT Culture Studies

**1602 Issues in Human Diversity** **3-0-3**
An expansion of the principles of applied social psychology to the broader scope of human society. Topics include: bias assumptions; stereotypes; the concept of a fair, just and civil workplace; and legal ramifications. Students participate in structured activities and focused discussion groups.
Prerequisites: PSY 1502.

**1645 Technology and Culture** **3-0-3**
Study and discussion of the impact and consequences of various applications of science and technology, both historical and current, on individuals and cultures.
Prerequisites: 6 credits of English composition.

**1646 Mass Media and Culture** **3-0-3**
Study and discussion of the role and function of mass media (newspapers, magazines, film, radio, TV, and computer multimedia) in today's society, including assessment of historical, business, and cultural perspectives and implications.
Prerequisites: 6 credits of English composition.

**1647 Work and Society** **3-0-3**
Topics include: the significance and meaning of work to individuals, organizations, and cultures, through examination of materials drawn from literary, economic, sociological, political, and other cultural perspectives. Emphasizes issues regarding the changing aspects of work today.
Prerequisites: 6 credits of English composition.

**1680 Introduction to Film Studies 1** **3-0-3**
Study of film as an expressive art and a cultural artifact, emphasizing American film from its inception to the 1950s. Topics include: developing critical awareness as an audience member; film history, genres and themes; directing and acting styles; and technical elements of filmmaking. Students view films, both in theaters and on videotape. The course involves regular written assignments.
Prerequisites: 6 credits of English composition.

**1681 Introduction to Film Studies 2** **3-0-3**
A continuation of CULT 1680. Study of film as an expressive art and a cultural artifact, emphasizing American film from the 1950s to the present. Topics include: developing critical awareness as an audience member; film history, genres, and themes; directing and acting styles; and technical elements of filmmaking. Students view films, both in theaters and on videotape. The course involves regular written assignments.
Prerequisites: CULT 1680.



## DE Developmental Education

**0003 Basic Writing 1** **4-0-4**
A course on sentence development and preparation for college level writing.
Prerequisites: None.

**0004 Basic Writing 2** **4-0-4**
A course that further prepares students for college level writing. Topics include: sentence development, paragraph writing, and an introduction to essay writing.
Prerequisites: Successful completion of DE 0003 or appropriate COMPASS score.

**0005 Basic Writing 3** **4-0-4**
A course that continues developing college writing skills and emphasizes essay development.
Prerequisites: Successful completion of DE 0004 or appropriate COMPASS score.

**0010 College Reading 1** **4-0-4**
Topics include: developing flexibility in reading, improving vocabulary, and sharpening comprehension. Includes diagnostic and prescriptive testing.
Prerequisites: None.

**0011 College Reading 2** **4-0-4**
A continuation of DE 0010. Recommended for students needing further improvement in reading skills.
Prerequisites: DE 0010 or equivalent.

**0018 Integrated College Prep Skills** **Var-Var-Var**
Integrated instruction in college preparatory reading, writing, and basic mathematics fundamentals. Students participate in a collaborative learning community that prepares them for the next level of coursework through group activities and problem-based instruction.
Prerequisites: DE 0010 or appropriate placement score and advisor consent.

**0020 Basic Mathematics 1** **4-0-4**
A review of basic mathematics. Topics include: whole numbers and related operations, primes, composites, factoring, common fractions, decimals, and percents. Available in computer or lecture format.
Prerequisites: None.

**0024 Basic Algebra 1** **4-0-4**
A foundation in basic algebra. Topics include: signed numbers; graphing; graphic, symbolic, and tabular representations of algebra situations; and solving equations with tables, graphs, and symbolically. Available in self-paced or lecture format.
Prerequisites: Successful completion of DE 0020 or appropriate COMPASS score.

**0025 Basic Algebra 2** **4-0-4**
A continuation of DE 0024. Topics include: rates, ratios, and proportional reasoning; polynomial expression; solving systems of equations; and solving quadratic equations. Available in self-paced or lecture format.
Prerequisites: DE 0024.

# DT Dietetic Technology

Class-Lab-Credit

**4100 Fundamentals of Nutrition** **3-2-4**
A basic introduction to the science and art of nutrition. Topics include: fundamental study of the digestion, absorption, and metabolism of food nutrients; the relationship of nutrition to health maintenance; and the determination of nutritional needs of adults.
Prerequisites: DT 4111, CHE 2236.

**4102 Nutrition for the Life Cycle** **3-2-4**
The study of the nutritional needs of the life cycle from conception through maturity. Topics include: correlation of nutritional needs with normal growth patterns, and consideration of the physiological, psychological, and sociological changes significant to each age group.
Prerequisites: BIO 4014, DT 4100.

**4104 Clinical Nutrition 1** **3-2-4**
Topics include: basic principles of medical nutrition therapy and assessment techniques for disease, burns, surgery, and rehabilitation; and specific therapies for bone disorders, cancer, and immune disorders.
Prerequisites: BIO 4015, DT 4102.

**4106 Clinical Nutrition 2** **3-2-4**
Topics include: principles of medical nutrition therapy and assessment for endocrine, cardiovascular, and respiratory disorders, and appropriate diet modifications for each disorder.
Prerequisites: BIO 4016, DT 4104.
Corequisites: DT 4114.

**4107 Clinical Nutrition 3** **3-2-4**
Topics include: principles of medical nutrition therapy and assessment for metabolic, upper and lower gastro-intestinal, and renal disorders.
Prerequisites: DT 4106.
Corequisites: DT 4115.

**4109 Dietetics Technician Seminar** **2-0-2**
Preparation for DTR examination and entry into the dietetics profession. Students prepare and present a technical paper in dietetics.
Prerequisites: Completion of all Dietetic Technician courses or in final term.

**4111 Introduction to Dietetics Technology** **2-0-2**
Orientation to the field of nutrition and dietetics. Topics include: roles, mission, and relationship to the health care team.
Prerequisites: Admitted to the Dietetics program.

**4112 Dietetics Clinical Practice 1** **0-9-3**
Supervised practice in a health care facility parallel to didactics covered in DT 4102. Topics include: basic interviewing skills, nutrition screening, and assessment techniques.
Prerequisites: DT 4111, DT 4100.
Corequisites: DT 4102.

Class-Lab-Credit

**4113 Dietetics Clinical Practice 2** **0-9-3**
Supervised practice in a long term care facility parallel to didactics covered in DT 4104. Topics include: long term care documentation and practice of food service principles.
Prerequisites: DT 4112.
Corequisites: DT 4104.

**4114 Dietetics Clinical Practice 3** **0-9-3**
Supervised practice in a health care facility parallel to didactics covered in DT 4113. Includes rotation through a home health care agency.
Prerequisites: DT 4113.
Corequisites: DT 4106.

**4115 Dietetics Clinical Practice 4** **0-9-3**
Supervised practice in a health care facility parallel to didactics covered in DT 4114.
Prerequisites: DT 4114.
Corequisites: DT 4107.

**4116 Dietetics Directed Practice 6** **1-6-2**
Supervised practice in a health care facility individualized to meet final student needs for entry into dietetics profession. Coordinated with Dietetics Seminar.
Prerequisites: DT 4115.
Corequisites: DT 4109.

**4117 Community Outreach Directed Practice** **1-6-3**
A study of federal, state, and local community nutrition programs. Includes a supervised practice component.
Prerequisites: DT 4115.

**4120 Food Management 1** **2-6-4**
Integrates basic food preparation and presentation techniques and food science. Topics include: food composition, nutrient content, economics, work efficiency, use of small equipment. Students prepare and present food demonstrations.
Prerequisites: Admitted to the Dietetics program.

**4121 Food Management 2** **2-3-3**
Integrates basic food preparation and presentation techniques and food science. Topics include: food composition, nutrient content, economics, work efficiency, and menu planning. Students plan, prepare, and present meals for a small group.
Prerequisites: DT 4120.

**4122 Food Systems Management 1** **2-3-3**
A study of food systems management. Topics include: institutional menu planning and food service, purchasing and inventory controls, equipment maintenance, and budgeting and cost controls.
Prerequisites: DT 4125.

**4124 Food Service Sanitation Certificate** **2-0-2**
A study of all aspects of food service sanitation and safety for commercial and health care industries. Upon completion of a qualifying exam, students receive certificates from the Ohio Department of Health and the Education Foundation of the National Restaurant Association.
Prerequisites: None.

Class-Lab-Credit

**4125 Quantity Food Production 2-6-4**
Comprehensive instruction and practice in quantity food production. Topics include: identification, care, and use of institutional food service equipment; standardized recipes; quality assurance; work efficiency; costing; and food evaluation.
Prerequisites: DT 4121, DT 4124.

**4129 Food Systems Management 2 2-6-4**
Students practice advanced principles of food systems management. Each student manages one food service event and rotates through all aspects of a food service system.
Prerequisites: DT 4122.

**4130 Introduction to Nutrition 3-0-3**
An introduction to nutrition for students with a minimal science background. Topics include: basic nutrient composition and functions, food sources, nutritional impact on the various population groups, results of deficiencies or excesses, energy requirement calculations, body weights, menu planning for maximum nutritional status, and legislation that affects food and nutrition.
Prerequisites: None.

**4134 Nutrition for Growth and Development 3-2-4**
A study of nutrients in foods and nutrition needs of population groups, emphasizing birth through adolescence. Includes menu planning for correlating nutritional needs with normal growth patterns.
Prerequisites: BIO 4073.

**4135 Food Preparation for Children 2-3-3**
Menu planning and preparation of nutritious foods for children from birth through adolescence. Includes proper food sanitation and safety techniques.
Prerequisites: DT 4134.

**4136 Personal Nutrition 2-2-3**
A review of basic nutrition concepts and diets for healthy living. Topics include: nutrition and fitness for optimal health, nutrient functions and sources, weight management, and consumer issues in food safety and access.
Prerequisites: None.

**4137 Personal Healthy Cooking 1-3-2**
A course on integrating basic food preparation techniques and healthy food choices for the individual. Topics include: basic food preparation for consumers, healthy food selection, supermarket savings, recipe modification, alternative seasonings, food safety, and holiday food choices.
Prerequisites: None.

**4138 Computing for Clinical Dietetics Applications 0-2-1**
An introduction to software applications in clinical dietetics. Topics include: history of computer use in dietetics, introduction to computer hardware, overview of software applications specific to clinical dietetics, nutrient analysis, computerized patient records, and internet and clinical dietetic resources.
Prerequisites: Keyboarding skill.

Class-Lab-Credit

**4139 Computing for Food Service Applications 0-2-1**
An introduction to software applications in food service management. Topics include: introduction to food service resources on the internet, overview and trends in food service management software, spreadsheets and food service financial reports, and computerized purchasing and presentation software.
Prerequisites: Keyboarding skill, DT 4139, DT 4125.

**4155 Management of Human Resources 3-0-3**
Applied management skills for persons employed in food services. Topics include: organizational structures and types of leadership; policy and procedure writing and other types of communication; and practical knowledge needed for recruiting, hiring, training, and evaluating food service employees.
Prerequisites: DT 9375.

**4156 Dietary Manager Certificate 1 3-3-4**
A study of management of food service in health care organizations. Topics include: sanitation, food safety, HAACP guidelines, and basic food preparation and presentation techniques. Upon completion of a qualifying examination students will receive a certificate from the Ohio Department of Health and Education Foundation.
Prerequisites: Admitted to the Dietetics program.

**4157 Dietary Manager Certificate 2 4-3-5**
An introduction to principles of nutrition and menu writing. Topics include: a study of nutrients, nutrition needs of population groups, menu planning, standardizing recipes, costs, and production evaluation.
Prerequisites: DT 4156.

**4158 Dietary Manager Certificate 3 4-3-5**
A course on diet therapy and institutional food production. Topics include: relationship of diet to disease, menu modification, basic nutritional assessment, equipment use and maintenance, quality assurance, work efficiency.
Prerequisites: DT 4157.

**4159 Dietary Manager Certificate 4 3-3-4**
A course on management of food systems. Topics include: leadership styles; organizational behaviors and structures; policy and procedure development; communication skills; and recruiting, training, and evaluating food service employees.
Prerequisites: DT 4158.

**4194 Workshops in Dietetics 3-0-3**
Consideration and study of selected issues and topics in the dietetics area designed to meet current needs. Content and emphasis vary from year to year.
Prerequisites: None.

**4197 Lifesteps Weight Management 2-0-2**
A comprehensive weight management program that stresses the importance of diet, physical activity and behavior modification techniques for weight loss.
Prerequisites: None.

Class-Lab-Credit

**4198 Special Studies - Dietetics** **Var-Var-Var**
A student-initiated academic pursuit, mutually agreed upon by the student and faculty member and carried on outside the classroom. Before registration, the student must have the plan of study approved by a supervising faculty member and the DT program chair.
Prerequisites: Instructor consent.

**4199 Special Studies - Dietetics** **Var-Var-Var**
A student-initiated academic pursuit, mutually agreed upon by the student and faculty member and carried on outside the classroom. Before registration, the student must have the plan of study approved by a supervising faculty member and the DT program chair. Students receive grades of S or U for this course.
Prerequisites: None.

**9375 Parallel Cooperative Education - Dietetics Technology** **1-20-1**
The Dietetic Technology student participates in a part-time paid field learning experience while completing other program requirements. This experience provides an opportunity to apply knowledge and skills acquired in classes. The student must adhere to the Health Technologies Division Student Handbook and program requirements.
Prerequisites: Admitted to Dietetics program, coordinator consent, 2.0 minimum GPA.

# ECE Early Childcare and Education

**4359 Introduction to Childcare** **2-0-2**
An introduction to the childcare field. Topics include: theories, requirements, and opportunities related to effective daycare and family daycare operations. Students in this course complete Early Childcare and Education program admission requirements including a fee for background police checks.
Prerequisites: None.

**4360 Principles of Early Childhood Education** **3-0-3**
A course on the theories associated with the physical, mental, social, emotional, and cognitive growth and development of children from birth through age five and the developmentally appropriate childcare practice for these age groups.
Prerequisites: None.

**4361 Early Childcare 1 - Infant/Toddler** **3-0-3**
A course on the care and nurturing of infants and toddlers. Topics include: specific strategies for promoting growth and development in developmentally appropriate childcare practice.
Prerequisites: ECE 4360.
Corequisites: ECE 4362.

**4362 Early Childcare Practicum 1- Infant/Toddler** **1-7-2**
Practical application of childcare principles in an infant/toddler setting. Experiences include observations and supervised direct practice. Prerequisites: ECE 4368, CPR certificate, and admitted to the Early Childcare and Education program.
Prerequisites: None.
Corequisites: ECE 4361.

Class-Lab-Credit

**4363 Early Childcare 2 - Preschool** **3-0-3**
A course on developmental principles and educational theories involved in caring for and teaching preschool age through school age. Topics include: classroom management, guidance, and strategies used to promote growth and development of this age group.
Prerequisites: ECE 4361 and CPR certificate.
Corequisites: ECE 4364.

**4364 Early Childcare Practicum 2 - Preschool** **1-7-2**
Practical application of childcare principles in a preschool setting. Experiences include observation and supervised direct practice.
Prerequisites: ECE 4362.
Corequisites: ECE 4363.

**4367 Enrichment Activities for Early Childhood Programs** **3-0-3**
An introduction to art, music, math, science and physical activities for young children. Students use a variety of materials and techniques appropriate for infants through school age.
Prerequisites: ECE 4360.

**4368 Early Childcare Observation Techniques** **2-0-2**
Topics include: techniques for observing, assessing, and recording information about early childcare programs. Students must complete this course prior to practicum.
Prerequisites: None.
Corequisites: ECE 4359.

**4369 Parents and Families in Early Childhood Education** **2-0-2**
An introduction to methods for parent-teacher collaboration. Topics include: effective communication between parents and teachers to enhance child development, and conducting effective parent-teacher conferences.
Prerequisites: ECE 4360.

**4370 Nutrition and Health for Early Childhood Programs** **3-0-3**
A study of concepts related to good child nutrition. Topics include: USDA requirements for children, infant feeding, growth rates, and the social, emotional and mental health needs of early childhood.
Prerequisites: None.

**4371 Communicable Diseases of Early Childhood** **1-0-1**
Topics include: the recognition, prevention, transmission, and management of early childhood communicable diseases.
Prerequisites: EMS 4731.

**4372 Child Abuse Recognition and Prevention** **1-0-1**
A study of various types of abuse faced by children including recognition and prevention of abuse. Topics include: neglect, physical, mental, emotional, verbal, and sexual abuse.
Prerequisites: None.

**4373 Creating Safe Environments for Early Childhood Programs** **3-0-3**
A study of requirements for creating safe environments for young children. Topics include: indoor and outdoor safety, water safety, field trip procedures, fire and emergency procedures, and facility safety issues.
Prerequisites: None.

**4374 Language Development and Literature for Childcare Programs** **3-0-3**
A study of the growth and nurturing of oral language development in children from infants to school age. Topics include: the development of listening, communication, and social interaction skills.
Prerequisites: ENG 1002.

**4375 Diversity Education for Early Childhood Programs** **3-0-3**
Topics include: the nature of multiculturalism, diversity, physical disabilities, developmental disabilities, educational practices and materials, teacher education, and other components in providing appropriate education experiences and socialization of young children into society.
Prerequisites: None.

**4388 Child Development Associate (CDA) Portfolio Development** **1-2-2**
A course in which Early Childcare and Education students complete a resource file to include in the portfolio that documents their skills relevant to the CDA competency areas. The instructor is also the CDA advisor.
Prerequisites: ECE 4364 with a grade of B or better.

**9900 Internship - Early Childcare and Education** **1-20-1**
The Early Childcare and Education student participates in a part time unpaid field experience that provides an opportunity to apply knowledge and skills acquired in class. Students must adhere to program internship policies and procedures to earn credit.
Prerequisites: Admitted to program.

**9901 Cooperative Education - Early Childcare and Education** **1-40-2**
The Early Childcare and Education student participates in a full time paid field learning experience that provides an opportunity to apply knowledge and skills acquired in class. Students must adhere to program cooperative education policies and procedures to earn credit.
Prerequisites: Admitted to program.

**9902 Parallel Cooperative Education - Early Childcare and Education** **1-20-1**
The Early Childcare and Education student participates in a part time unpaid field experience that provides an opportunity to apply knowledge and skills acquired in class. Students must adhere to program internship policies and procedures to earn credit.
Prerequisites: Admitted to program.



# ECO Economics

**1512 Microeconomics** **3-0-3**
Topics include: the fundamental economic problem of scarcity and a brief overview of the micro-system, demand and supply analysis within individual markets, price determination, analysis of cost, forecasting, and economic decision-making in the firm.
Prerequisites: None.

**1513 Macroeconomics** **3-0-3**
An introduction to the basic economic problems of scarcity. Topics include: an overview of the macro-system; analysis of price level; inflation and unemployment; the role of government in monetary and fiscal policy; and analysis of aggregate income, consumption, savings, and investment.
Prerequisites: None.

**1514 International Aspects of Economics** **3-0-3**
The application of micro- and macroeconomics to the global economy. Topics include: the theories of comparative economic systems, resource markets, trade policies, economic development, the international monetary system, and trade policies.
Prerequisites: ECO 1512 or ECO 1513 or instructor consent.

# EET Electronic Engineering Technology

**EET 7743 = TET 7743 Analog Communications 1**
**EET 7772 = TET 7772 Telephony 1**

**EET 7773 Analog Communications 2 = TET 7773 Wireless Communications**

**7001 Computer Concepts** **2-1-2**
An introduction to computers. Topics include: keyboarding, hardware, disk operating systems, basic word processing, elementary programming. Required for all Engineering Technology pre-tech students unless specifically waived by the Dean of Engineering Technologies.
Prerequisites: None.

**7035 Computer Applications for Engineering Technology** **2-3-3**
Introduction to Windows 95, DOS, and applications software. Topics include: Microsoft Word, Excel, PowerPoint, and CAD software such as PSpice, AutoCAD, or similar software. Students integrate these software packages to solve engineering technology problems.
Prerequisites: EET 7001 or equivalent.

**7700 Electrical Concepts** **3-2-4**
An introduction to the concepts of electrical units, circuits, and measurements for the student with limited formal background in electrical fundamentals. Topics include: series, parallel, series-parallel, and basic inductance and capacitance concepts. Required for all students in the pre-BMET, pre-CPET, pre-EET, pre-EMET, and pre-LEOT programs.
Prerequisites: None.
Corequisites: MAT 1161.

Class-Lab-Credit

**7701 Electronic Fundamentals 1** **3-2-4**
An introduction to the basic laws of AC and DC electricity and their applications. Topics include: voltage, current, power distribution as applied to resistive circuits, instrumentation, measurement techniques, component testing, basic circuit construction, and troubleshooting.
Prerequisites: None.
Corequisites: MAT 1161.

**7702 Electronic Fundamentals 2** **3-2-4**
A continuation of EET 7701. Topics include: basic AC circuits, capacitance, inductance, magnetic principles, reactance, and impedance, instrumentation, measurement techniques, component testing, circuit construction, and troubleshooting.
Prerequisites: EET 7701, MAT 1161.
Corequisites: MAT 1162.

**7703 Methods of Network Analysis** **3-2-4**
An introduction to methods of network analysis for single- and multi-source AC and DC circuits. Topics include: source conversions, branch and mesh methods of analysis, superposition, Thevenin's theorems, phase relationships, power factor, resonant and filter networks, measurement techniques, advanced circuit construction, and troubleshooting.
Prerequisites: EET 7702, MAT 1191.
Corequisites: MAT 1192.

**7707 Survey of Analog Devices** **3-2-4**
A survey of analog devices for students in a non-engineering technology degree program. Topics include: definitions, operational characteristics and applications of diodes, bipolar transistors, operational amplifiers, field effect transistors, silicon controlled rectifiers, crystals, circuit construction, and troubleshooting techniques.
Prerequisites: EET 7701, MAT 1161.

**7710 DC Circuit Analysis** **5-0-5**
An introduction to the concept of electricity. Topics include: current, voltage, power, and energy; series, parallel, and series-parallel circuits and application of these circuits; network analysis using source conversions; branch and mesh methods; superposition; and Thevenin's and maximum power transfer theorems.
Prerequisites: None.
Corequisites: MAT 1191 or MAT 1172, EET 7711.

**7711 DC Circuits Lab** **0-3-1**
Topics include: proper use of techniques and instruments commonly used by technicians in theory verification and troubleshooting of DC circuits, power supplies, VOMs and DMMs.
Prerequisites: None.
Corequisites: EET 7710.

**7716 Computer Calculations for Electronics** **3-3-4**
An introduction to DOS/Windows and application software. Topics include: Microsoft Word, Excel, PowerPoint, and CAD software such as PSpice or similar software. Students use these software packages to solve sophisticated electronics engineering technology problems.
Prerequisites: A knowledge of basic computer operations, EET 7710 and EET 7711 or EET 7702.

Class-Lab-Credit

**7720 AC Circuit Analysis** **5-0-5**
An introduction to capacitance and inductance including capacitive and inductive transient circuit analysis. Topics include: AC waveforms; reactance; impedance; transformers, and series, parallel, and series-parallel AC circuits along with applications of these circuits including filters and resonance. Students use PSpice circuit simulation software.
Prerequisites: EET 7710, EET 7711.
Corequisites: MAT 1192, EET 7721.

**7721 AC Circuits Lab** **0-3-1**
A course on the proper techniques and instruments commonly used by technicians in theory verification and troubleshooting of AC circuits. Topics include: DVOMs, oscilloscope, signal generators, and frequency counters. Students use PSpice circuit simulation software.
Prerequisites: EET 7710, EET 7711.
Corequisites: EET 7720.

**7730 Electronics 1** **5-2-6**
A course on semiconductor theory, PN junctions, and diodes. Topics include: an introduction to diode circuits and basic power supply circuits, transistor theory covering biasing and biasing circuits, and small signal amplifiers including common-emitter, common collector, common-base and cascaded amplifiers. Students use PSpice circuit simulation software.
Prerequisites: EET 7720, EET 7721, or EMT 7722, EMT 7723.

**7733 Electrical Applications** **3-2-4**
A course for students in a non-electrical degree program. Topics include: electrical control components, reading schematics and writing diagrams, applied electrical basics, electromagnetism, AC and DC motor characteristics, control and power circuit troubleshooting procedures, logic concepts, and programmable controllers.
Prerequisites: MET 7132.

**7736 Electrical Power Systems** **4-2-4**
A course on the articles of the National Electrical Code that apply to electrical systems. Topics include: transformer principles, three-phase systems, overcurrent devices, conductors, grounding, wiring methods, branch circuits, service entrances, load calculations, and special topics.
Prerequisites: None.

**7740 Electronics 2** **5-2-6**
Topics include: FET theory for JFET and MOSFET devices such as characteristic curves, biasing, and amplifiers; operational amplifier theory including negative feedback; inverting and non-inverting amplifiers; inverting adder, differential, bridge, and instrumentation amplifiers; and single supply operation and comparators. Students use PSpice circuit simulation.
Prerequisites: EET 7730.

**7742 AutoCAD (Electrical)** **2-3-3**
An introduction to reading and modifying building drawings for voice and data communications wiring. Topics include: use of AutoCAD to create and modify drawings for cable routing in office and industrial buildings, and use of layout software to design basic LAN and WAN networks.
Prerequisites: EET 7730, EET 7738.

Class-Lab-Credit

**7750 Electronics 3** **4-3-5**
A course on the analysis and design of Class A Power amplifiers, and Class B and C amplifiers. Topics include: amplifier frequency response such as Miler's Theorem, bode plots, and measurement techniques; Thyristor devices such as SCRs, diacs, triacs and UJTs. Students use PSpice circuit simulation software.
Prerequisites: EET 7740.

**7766 Computer Control Systems** **3-2-4**
An introduction to feedback and computer control techniques that accurately control DC motors and stepper motors using digital information obtained from sensors and transpulers.
Prerequisites: EET 7730, EET 7748.

**7770 Computer Repair: System Design and Interfacing 4-3-5**
An electronics-intensive course on topics related to design of computer systems. Topics include: computer hardware, subsystems interface, and troubleshooting techniques.
Prerequisites: EET 7730, CPET 7748.

**7771 Soldering and Cabling** **1-2-2**
Topics include: soldering of printed circuit boards, standard parallel null modems, and RS232 cables; wire wrapping prototype circuits; crimping end connectors on coaxial cables; making telephone cables using RJ-11 connectors; and splicing fiber optic cable.
Prerequisites: None.

**7780 Computer Repair: General Systems** **2-3-3**
Topics include: demonstrations, lab exercises, diagnostic evaluations, and hands-on troubleshooting of IBM PC, XT, AT, PS2, and compatible computer systems using available diagnostic software to determine the problem and restore systems to normal operation. Experience in at least one PC application program is essential.
Prerequisites: None.

**7781 Computer Repair: Advanced Systems** **2-3-3**
A continuation of EET 7780. Topics include: specialized hardware peripherals and devices, system optimization, driver installation, and printer maintenance.
Prerequisites: EET 7780.

**7799 Special Problems Seminar-Electrical** **Var-Var-Var**
Individual study and special projects pertaining to the particular technology in which the student is enrolled. The study may deal with an idea or concept not normally covered by existing courses at the College, or with a specific problem found in the industry in which the student is employed. Open to fourth and fifth term students by special arrangement with the instructor and program chair.
Prerequisites: Program chair consent.

# EMS Emergency Medical Services

**4730 CPR for Health Care Professionals** **0-2-1**
Comprehensive course in Basic Life Support for health care providers. Includes one and two rescuer CPR, adult, child, and infant CPR, barrier devices and AED. Students who successfully complete this course will be issued an AHA CPR for Health Care Professionals card.
Prerequisites: None.

Class-Lab-Credit

**4731 First Aid** **0-2-1**
Topics include: recognizing and responding to emergencies and proper first aid for injuries, sudden illness, and medical emergencies. Students who successfully complete the course are awarded a National Safety Council First Aid card.
Prerequisites: None.

**4732 CPR - BLS Heartsaver** **0-1-1**
An entry-level CPR One Rescuer, Adult CPR course. Topics include: choking, recognition of a heart attack, stroke warning signs and healthy heart living.
Prerequisites: None.

**4733 CPR - Pedriatric Basic Life Support** **0-1-1**
An entry-level Pediatric Basic Life Support course for infant and child CPR. Topics include: choking and infant and child safety.
Prerequisites: None.

**4734 CPR & First Aid - BLS Heartsaver FACTS** **0-1-1**
A course that combines CPR and National Safety Council First Aid training. Includes Automatic External Defibrillation training.
Prerequisites: None.

**4735 BLS for Healthcare Providers** **0-1-1**
A course for professionals who respond to respiratory and cardiac emergencies. Topics include: adult and pediatric CPR, AED, stroke, and barrier devices.
Prerequisites: None.

**4751 Basic Trauma Life Support** **0-2-1**
For the advanced EMT, paramedic, and trauma nurse who initially evaluates and stabilizes the trauma patient. Topics include: the rapid assessment, resuscitation, packaging, and transport of the trauma patient and conditions which cannot be stabilized in the field and require immediate transport.
Prerequisites: EMS 4797, ACLS.

**4752 Emergency Critical Care** **3-6-5**
For the paramedic or registered nurse with at least two years of experience. Topics include: advanced skills used in the critical care environment for the stabilization and management of critically ill and/or trauma patients.
Prerequisites: Paramedic or Registered Nurse + 2 years ACLS & BTLS.

**4760 Emergency Medical Technician Basic Training 1** **3-3-4**
The first course of a two-course sequence that provides initial training for Emergency Medical Technician (EMT) at the basic level. To sit for the National Registry Exam to become certified by the State of Ohio as an EMT-B, students must successfully complete both EMS 4760 and EMS 4761. College level reading and writing skills are required.
Prerequisites: None.

**4761 Emergency Medical Technician Basic Training 2** **3-6-5**
A continuation of EMS 4760. Includes the clinical component of the curriculum. To sit for the National Registry Exam to become certified by the State of Ohio as an EMT-B, students must successfully complete both EMS 4760 and EMS 4761. College level reading and writing skills are required.
Prerequisites: EMS 4760.

Class-Lab-Credit

**4763 Paramedic Theory and Practice 1 12-14-15**
Part 1 of the National EMT-Paramedic curriculum. Topics include: patient assessment and initial management, airway and ventilation, general pharmacology, and management of respiratory emergencies. Includes 8 hours of clinical per week and 6 hours of practical laboratory experience.
Prerequisites: BIO 4016, EMT-B Certificate.

**4764 Paramedic Theory and Practice 2 12-14-15**
Part 2 of the National EMT-Paramedic Curriculum including: the anatomy, pathophysiology, assessment, and management of cardiovascular emergency. Includes 8 hours of clinical per week and 6 hours of practical laboratory experience.
Prerequisites: EMS 4763.

**4765 Paramedic Theory and Practice 3 12-14-15**
Part 3 of the National EMT-Paramedic curriculum including: the anatomy, pathophysiology, assessment, and management of trauma, burns, pediatrics, and obstetrics. Includes 8 hours of clinical per week and 6 hours of practical laboratory experience.
Prerequisites: EMS 4764.

**4766 Paramedic Theory and Practice 4 12-14-15**
Part 4 of the National EMT-Paramedic curriculum. Topics include: substance abuse, behavioral emergencies, geriatrics, rescue, and ACLS. Includes 8 hours of clinical per week and 6 hours of practical laboratory experience.
Prerequisites: EMS 4765.

**4768 EMT-Paramedic Field Experience-Internship 0-40-2**
The student participates in an unpaid field learning experience 32-40 hours per week. The student must adhere to the Health Technologies Division Student Handbook and EMT-Paramedic program requirements.
Prerequisites: EMS 4766.

**4769 EMT-Paramedic Field Experience-Cooperative Education 0-40-2**
The student participates in a paid field learning experience 32-40 hours per week. The student must adhere to the Health Technologies Division Student Handbook and EMT-Paramedic program requirements.
Prerequisites: EMS 4766.

**4782 Pediatric Education for Pre-hospital 1-2-2**
The assessment of pediatric patients during pre-hospital emergencies. Topics include: techniques on how to approach, assess, and manage pediatric patients involved in trauma, cardiovascular, respiratory and other life threatening circumstances; communications; packaging; and radio reporting.
Prerequisites: EMT Certificate.

**4797 Paramedic Technology Special Studies Var-Var-Var**
Study and special projects concerning Paramedic Technology open to State of Ohio certified paramedics wishing advanced standing for Associate of Technical Studies Degree in Paramedic Technology. This course is arranged with the approval of the Dean of Health Technologies.
Prerequisites: Certified Paramedic (State of Ohio) or approval of Dean of Health Technologies.

Class-Lab-Credit

**9362 Cooperative Education - EMS 0-40-2**
The student participates in a paid field learning experience 32-40 hours per week. The student must adhere to the Health Technologies Division Student Handbook and EMS program requirements.
Prerequisites: EMS 4766.

# EMT Electro-Mechanical Engineering Technologies

**7003 Engineering Science Concepts 3-0-3**
An introduction to the principles of engineering technology. Topics include: an overview of the various areas of engineering technology including units of measurement and basic formulas. Required for all Engineering Technology pre-tech students unless specifically waived by the Dean of Engineering Technologies.
Prerequisites: None.

**7006 Introduction to Electro-Mechanical Engineering Technology 1-0-1**
An introduction to Electro-Mechanical Engineering Technology (EMET) and the EMET program. Topics include: descriptions of the functions and jobs typically performed by electro-mechanical systems technicians, the knowledge and skills requirements of EMET field, industry standards and requirements, the EMET cooperative education and academic programs, and development of goals and of personalized academic/co-op plan to achieve the goals.
Prerequisites: None.

**7036 Technical Computer Programming 3-2-4**
An introduction to computer programming with Basic to solve a variety of technical problems encountered by electro-mechanical technicians. Topics include: interfacing devices to the computer and developing algorithms and problem solving skills.
Prerequisites: MAT 1191 or MAT 1172.

**7142 Industrial Mechanics 3-3-4**
An introduction to industrial mechanical components and machine drives. Topics include: the operation and maintenance of industrial components such as bearings, chain drives, gear drives, fasteners, and lubrication.
Prerequisites: None.

**7146 Electro-Mechanical Controls 1 (Programmable Controllers-PLCs) 3-3-4**
A two-part course on power semiconductor devices used to control large industrial loads such as motors, heaters, and lighting systems in the first part. Topics include: transistors, thyristors, resistive loads, and signal and power line conditioning. Part 2 deals with Programmable Logic Controllers (PLC). Topics include: developing, maintaining, and troubleshooting PLC programs using online computer software, contact-coil ladder logic, counters, timers, latches, shift registers, digital sequencer logic as applied to on/off control systems and analog I/O, and PLC basics applied to process control.
Prerequisites: EMT 7036, EMT 7732, CPET 7738, EMT 7758.
Corequisites: EMT 7142.

**7156 Electro-Mechanical Project** **2-4-4**
A course consisting of laboratory/project work on various projects involving electro-mechanical systems and devices. One project area emphasizes topics related to the process control/instrumentation field consisting of one or more automated control systems that regulate the manufacture of foods, chemicals, and other solid and liquid products. Students may also work on other project areas (as available) such as machine control, robotics, or industrial automation and control.
Prerequisites: EMT 7730, EMT 7738.

**7157 Electro-Mechanical Controls 2 (Servomechanisms)** **3-3-4**
A course on the concepts of negative feedback for closed-loop servo systems. Topics include: transducers for sensing system parameters; proportional (P), proportional-derivative (PD), and proportional-integral-derivative (PID) positional control systems; computer control of servo-control systems; and simple closed-loop control.
Prerequisites: EMT 7146.
Corequisites: ENG 1015.

**7167 Robotics 1** **3-2-4**
An introduction to basic concepts of robotics and factory automation where robots are used as a common tool for better quality and productivity. Topics include: analysis of industrial robotics applications in an automated manufacturing environment, description of mechanical and electrical components, hands-on programming and operation of robots, principles of selection of a robot for an industrial application, and introduction to quality assurance and rigging.
Prerequisites: EMT 7036 or equivalent, EMT 7730 or equivalent.

**7181 Process Instrumentation 1** **3-2-4**
An introduction to all phases of process instrumentation. Topics include: principles and practices of measurement and control of temperature, pressure, flow, level, and analytical quantities. Includes hands-on projects with process instruments and controls. Requires minimum MAT 1171 math level and electrical background.
Prerequisites: None.

**7182 Process Instrumentation 2** **3-2-4**
A continuation of EMT 7181. Topics include: principles and practices of measurement and control of temperature, pressure, flow, level, and analytical quantities with increasingly complex applications. Includes hands-on projects with process instruments and controls. Requires minimum MAT 1171 math level and electrical background.
Prerequisites: EMT 7181.

**7183 Process Instrumentation 3** **3-2-4**
A continuation of EMT 7182. Topics include: measurement and control of temperature, pressure, flow, level, and analytical quantities with increasingly complex applications. Includes hands-on projects with process instruments and controls. Requires minimum MAT 1171 math level and electrical background.
Prerequisites: EMT 7182.

Class-Lab-Credit

**7184 Process Instrumentation 4** **3-2-4**
A continuation of EMT 7183. Topics include: measurement and control of temperature, pressure, flow, level, and analytical quantities to increasingly complex applications. Includes hands-on projects with process instruments and controls. Requires minimum MAT 1171 math level and electrical background.
Prerequisites: MAT 7183.

**7185 Process Instrumentation 5** **3-2-4**
A continuation of EMT 7184. Topics include: measurement and control of temperature, pressure, flow, level, and analytical quantities with increasingly complex applications. Includes hands-on projects with process instruments and controls. Requires minimum MAT 1171 math level and electrical background.
Prerequisites: EMT 7184.

**7501 HVAC - Plant Maintenance** **3-2-4**
An introduction to the maintenance and operation of electrical and mechanical building systems. Topics include: planning for the efficient operation of building systems; compliance with energy codes and standards; electrical and lighting system operation and maintenance; energy management system and control systems operation and maintenance; building envelope, boiler, and fired-system operation and maintenance; water treatment; steam, condensate, and insulation maintenance; and HVAC systems operation and maintenance.
Prerequisites: EMT 7552.

**7525 HVAC Fundamentals** **3-2-4**
A course on the basics of heating, ventilating and air conditioning (HVAC) concepts and theory. Topics include: HVAC system components, refrigeration cycle/systems operation, psychometrics, refrigerator water piping, refrigerants and oils/practical applications, gas heating basics and hydronic heating, gas furnaces and controls, combustion and fuels, properties of air, airflow measuring devices, fan laws and performance, and air flow calculations. Requires minimum MAT 1171 math level.
Prerequisites: None.

**7535 HVAC Equipment and Systems** **3-0-3**
A course on systems used to provide heating and cooling, moving from a general overview of systems to an in-depth understanding of the equipment used for different applications, including the components and operation of the equipment. Topics include: air systems, water systems, air-water systems, direct refrigerant systems, co-generation, central station air handlers/coils, packaged reciprocating liquid chillers, central plant systems, heating systems, air compressors/dryers and process equipment, VAV/VVT, and controls.
Prerequisites: EMT 7525.

**7536 Evaluation of Building Electrical Systems** **3-2-4**
A course on the basics of electrical systems used in buildings. Topics include: electric rates, AC circuits, single and three-phase systems, transformers, power distribution, panel load calculations, riser diagrams, electric safety and protection, grounding, voltage drop calculations, power loss calculations, power factor correction, electric motors, lighting fundamentals and applications lighting retrofits, and payback analysis. Requires minimum MAT 1171 math level.
Prerequisites: None.

**7541 Evaluation of Energy-Efficient Building Systems 3-2-4**
A course on the principles and practices of maintenance, operation, and selection of energy-efficient building systems. Topics include: terms, definitions, units, conversions, blueprint reading, comfort design conditions and load calculations, air conditioning system selection, heating system selection, thermal insulation, ducts and fans, pipes and pumps, and balancing and testing HVAC controls.
Prerequisites: EMT 7552.

**7546 Motors and Controls for Building Systems 3-2-4**
A course on fundamentals, applications, selection, and control of single and three-phase AC motors. Topics include: speed and torque characteristics; horsepower and efficiency calculations; control circuits; acceleration methods; speed control; plugging; braking; jogging; variable frequency drives and their selection and sizing; building equipment control circuits such as air conditioning and sizing; and boilers, fans, pumps, and other systems. Lab exercises include: design, construction, and fault analysis of motor control circuits as used in building systems.
Prerequisites: EMT 7535.

**7552 HVAC Controls and Building Automation Systems3-2-4**
A course on the basics of building automation systems and HVAC controls. Topics include: control applications and terminology; electrical and electronic control fundamentals; pneumatic control fundamentals; introduction to Building Automation Systems (BAS); hardware and software for BAS; boiler, chiller, AHU, and HVAC BAS controls; and lighting and miscellaneous building systems controls.
Prerequisites: EMT 7535.

**7555 Energy Economics, Accounting and Auditing 3-2-4**
A course on the factors related to the costs of energy usage in buildings. Topics include: gas and electric rates, demand charges, the load management rider, power factor corrections, savings calculations, payback equations, life-cycle costs vs. first costs, energy audit procedures, demand scheduling, commercial and industrial energy consumption, common energy-saving recommendations with short or immediate paybacks, reports and graphs for presentation to management, and programs and resources available for assistance.
Prerequisites: EMT 7725, EMT 7535.

**7731 Industrial Control Electronics 1 5-3-6**
A course on digital circuit for EMET students. Topics include: digital circuits as applied to industrial control systems.
Prerequisites: MAT 1191, EET 7710, EET 7711.

**7732 Industrial Control Electronics 2 5-3-6**
A course on electronic devices intended to give the electromechanical technician both theory and practice, emphasizing analyzing schematics and predicting voltages and signal waveforms. Topics include: rectifier diodes, zener diodes, bipolar transistors, field effect transistors, operational amplifiers, silicon controlled rectifiers, unijunction transistors, triacs, optoelectronic devices and various sensors.
Prerequisites: EET 7720, EET 7721.



**7758 Motors & Controls 3-2-4**
A course on fundamentals, applications, selection and control of DC, single phase, and three-phase AC motors. Topics include: operation, selection and troubleshooting of motors and control circuits; calculation of speed, torque, horsepower, and efficiency; motor protection, failure, and troubleshooting; design, construction, and fault analysis/troubleshooting of motor control circuits.
Prerequisites: EMT 7722 and EMT 7723 or EET 7720 and EET 7721.

# ENG English

**1001 English Composition 1 3-0-3**
An introduction to the composition process. Topics include: prewriting, drafting, revising, editing, identifying audiences, and developing a strong thesis that results in a unified and coherent essay with grammatical, mechanical, and stylistic correctness.
Prerequisites: None.

**1002 English Composition 2 3-0-3**
A continuation of ENG 1001. Topics include: further development of writing skills emphasizing critical reading, reasoning, and argumentation; the research process; and the research paper.
Prerequisites: ENG 1001.

**1003 English Composition 3 3-0-3**
A continuation of ENG 1002. Topics include: advanced practice of the principles of good writing, emphasizing reading and responding critically to works of literature.
Prerequisites: ENG 1002.

**1009 Business English 3-0-3**
A course on current practices in business communication. Topics include: composing various types of business-related documents; achieving accuracy in grammar, mechanics, usage, spelling, and syntax.
Prerequisites: ENG 1002.

**1010 Technical Writing 1 3-0-3**
A course on the principles and practices of composing various types of professional and technical communication. Topics include: audience analysis; planning and preparing documents used for reference or instruction; integrating visuals with text. Students who register for this course should also register for an upper level course in their degree program.
Prerequisites: ENG 1001 or ENG 1002 and 12 hours in technical area.

**1011 Business Communications 3-0-3**
A course on the principles and practices of composing various types of business correspondence. Topics include: informal and formal business reports, and development of style.
Prerequisites: ENG 1001 or equivalent.

**1015 Technical Writing 2** **3-0-3**
A continuation of ENG 1010. Topics include: selecting, organizing, and presenting materials in written and oral reports for professional and technical audiences; preparing surveys, proposals, lab reports, and other job-related reports. Students who register for this course should also register for an upper level course in their degree program.
Prerequisites: ENG 1010.

**1017 Research and Composition** **2-2-3**
Continued study and practice of writing skills, emphasizing use of appropriate research methods. Topics include: selection, analysis, interpretation, and documentation of materials from print, electronic, and other sources; interviewing skills; questionnaire design; and other elements of writing non-fiction based on primary and secondary sources.
Prerequisites: ENG 1001 or ENG 1018.

**1018 Professional Writing Styles 1** **2-2-3**
Study and practice, through conference-based learning, of the conventions, styles, and structures of professional non-fiction writing. Topics include: principles of economy, emphasis, clarity and correctness in planning, composing, and revising prose. Students seeking the Technical Communication degree or certificate must earn a grade of B or higher to maintain good standing in the program.
Prerequisites: ENG 1001 or Technical Communication program chair consent.

**1019 Professional Writing Styles 2** **2-2-3**
Continued study and practice, through conference-based learning, of the conventions, styles and structures of professional non-fiction writing. Topics include: principles of concreteness, unity, coherence, and variety in planning, composing, and revising prose; and preparing materials based on well-documented research. Students seeking the Technical Communication degree or certificate must earn a grade of B or higher to maintain good standing in the program.
Prerequisites: ENG 1018 or Technical Communication program chair consent.

**1036 Creative Writing: Poetry** **3-0-3**
An introduction to the art of writing poetry. Topics include: the invention process, revision, poetic form, and critical response to professional and student works. Students must submit a portfolio of finished work.
Prerequisites: 9 hours of English composition.

**1037 Creative Writing: Short Fiction** **3-0-3**
An introduction to the art of writing short fiction. Topics include: the invention process, revision, narration, dialogue, characterization, plot, story development, point of view, and critical response to professional and student works. Students must submit a portfolio of finished work.
Prerequisites: 9 hours of English composition.

**1038 Creative Writing: Non-Fiction** **3-0-3**
An introduction to creative expository prose. Topics include: the invention process, revision, biography, memoir, journal writing, journalistic writing, travel and nature essays, and critical response to professional and student works. Students must submit a portfolio of finished work.
Prerequisites: 9 hours of English composition.

Class-Lab-Credit

**1039 Creative Writing: Writing for Children** **3-0-3**
An introduction to the art of writing for children. Topics include: the invention process, revision, narration, dialogue, characterization, and plot. Genres include: picture books, easy readers, chapter books, and middle grade novels. Students must submit a portfolio of finished work.
Prerequisites: 9 hours of English composition.

**1098 Workshops in Communication Skills** **Var-Var-Var**
Consideration and study of selected areas of written and oral communication designed to meet current needs. Content and emphasis vary from year to year.
Prerequisites: None.

**1099 Special Problems in Communication Skills** **Var-Var-Var**
Individual study and special projects pertaining to the particular technology in which the student is enrolled. Open to students wishing advanced standing, independent study, and/or research. Students arrange this course with the instructor and request approval of the Dean of Humanities and Sciences.
Prerequisites: 6 hours in communication skills.

# ESL English as a Second Language

**0060 English as a Second Language - Reading and Writing Level 1** **4-0-4**
An advanced beginner/intermediate English as a Second Language course. This course integrates speaking, listening, reading, and writing skills from simple sentence structure through developing paragraphs. Topics include: American culture, issues facing new immigrants.
Prerequisites: None.

**0061 English as a Second Language - Reading and Writing Level 2** **4-0-4**
An advanced English as a Second Language course. This course integrates speaking, listening, reading, and writing skills. Topics include a variety of American social issues.
Prerequisites: None.

**0063 English as a Second Language - Conversation** **2-0-2**
This course covers speaking and listening skills using a variety of simulated situations, American culture, and issues facing new immigrants.
Prerequisites: None.

**0098 English as a Second Language Workshops** **Var-Var-Var**
Study of selected topics in ESL designed to meet current needs. Content and emphasis vary from year to year.
Prerequisites: None.

# ET Engineering Technologies

**7004 Enrichment Seminar** **1-0-1**
Orientation to the Engineering Technologies Division and associated support areas. This course assists Engineering Technologies pre-tech students in the successful transition to their chosen technology. Required for all Engineering Technology pre-tech students unless specifically waived by the Dean of the Engineering Technologies.
Prerequisites: None.

**7099 Special Studies - Engineering Technologies Var-Var-Var**
Special individualized studies that provide students the opportunity to work on special technical topics in the Engineering Technologies field. Students may substitute this course for technical elective credits.
Prerequisites: None.

**9400 Cooperative Education - Engineering Technologies (Alternating) 1-40-2**
Students participate in a full-time (minimum of 36 hours per week) paid field learning experience. This experience relates to the student's academic discipline and career goals by providing an opportunity to acquire appropriate knowledge and skills associated with that discipline. Students must adhere to the division's cooperative education policies and procedures.
Prerequisites: Full-time status; admitted to a program; 2.0 minimum GPA.

**9401 Cooperative Education - Engineering Technologies (Parallel) 1-20-1**
Students participate in a paid field learning experience directly related to the program discipline for 15 to 30 hours per week, while registered for a minimum of 8 credit hours of program course requirements during that same term. Students must adhere to the Engineering Technology Division cooperative education policies and procedures.
Prerequisites: Admitted to a program, 2.0 minimum GPA.

# EVET Environmental Engineering Technology

**7015 Introduction to Environmental Topics 1-2-2**
Topics include: basic concepts and terminology associated with environmental science, environmental problems, regulations, and solutions.
Prerequisites: DE 0020.

**7600 Introduction to Environmental Engineering Technologies 3-0-3**
Topics include: the fundamentals of environmental engineering technologies and key environmental concepts.
Prerequisites: None.

**7601 Industrial Waste Treatment 3-2-4**
A course on the importance and responsibilities of the industrial wastewater treatment plant operator. Topics include: the activated sludge process, physical-chemical treatment, instrumentation, industrial waste monitoring, waste treatment processes, and maintenance.
Prerequisites: EVET 7646 or instructor consent.

**7602 Supervisory Management in the Environmental Field 3-2-4**
Concepts and practices of management as they apply to the environmental field. Topics include: problem solving, communication skills, delegation and motivation, planning and organization, and manager-employee relationships.
Prerequisites: None.



**7603 Operation of Wastewater Treatment Plants 3-2-4**
A course on efficient operation of wastewater treatment plants. Topics include: start up, daily operations, interpretation of lab results, and possible approaches to solving operational problems. The course helps students prepare for certification examinations.
Prerequisites: EVET 7646 or instructor consent.

**7604 Water Treatment Plant Operations 3-2-4**
A course on efficient operation of water treatment plants. Topics include: proper installation, inspection, operation, maintenance, repair, and management of water treatment plants, corrosion control, control of trihalomethanes and analysis of water samples. The course helps students prepare for certification examinations.
Prerequisites: EVET 7646 or instructor consent.

**7605 Environmental Statistics 3-2-4**
A hands-on, computer lab intensive course on basic statistical methods used in environmental pollution monitoring. Emphasizes environmental statistics as a physical science, not just as a mathematical science.
Prerequisites: MAT 1132 or MAT 1179.

**7607 Environmental Sampling 2-3-3**
Following lectures on sampling requirements and techniques, students sample groundwater, surfacewater, drums, sediments, soil, and air.
Prerequisites: None.

**7608 OSHA-40 Hour Course 3-3-4**
Students complete the OSHA-specific requirements under 29 CFR 1910.120 for 40-Hour Hazardous Waste Site Training, and receive a certificate of training upon successful completion. Topics include: how to avoid injury on an uncontrolled hazardous waste site and the basis for health and safety programs.
Prerequisites: None.

**7609 Fundamentals of Industrial Hygiene 3-2-4**
An overview of the principles of industrial hygiene. Topics include: techniques for recognizing, evaluating, and controlling health and safety hazards in the workplace; radiation safety; noise; solvents; biological hazards; and video display terminal hazards.
Prerequisites: None.

**7610 Radiation Safety 3-2-4**
An introduction to the principles of radiation safety and protection. Topics include: the interaction of radiation with matter and the biological effects of radiation from a basis of atomic and nuclear structure and types of radioactivity, dosimetry, radiation protection criteria, shielding calculations, and radiation measurement.
Prerequisites: None.

**7611 Risk Assessment in Environmental Management 3-0-3**
A course on how risk assessment is used for solid waste management, hazardous waste/superfund sites, water and wastewater, and biological and ecological issues. Real-world case studies illustrate the risk assessment process.
Prerequisites: None.

Class-Lab-Credit

**7612 Environmental Microbiology 3-3-4**
A course on microbiology of air, solid and hazardous waste, soil, water and wastewater. Topics include: genetically engineered microbes; bioremediation; microbial disinfection; microbes as indicators of pollution; and analysis of water and wastewater, soils, solid waste and aerosols.
Prerequisites: High school biology within 7 years or BIO 4071 and BIO 4072.

**7613 Environmental Surveying & Drafting 3-3-4**
An introductory course in field measurement techniques and surveying drafting. Topics include: contour maps, cross sections, grading plans, volume calculations, and boundary plats.
Prerequisites: None.

**7614 Basic Mechanics of Fluids 3-3-4**
Topics include: engineering properties of fluids including fluid flow, buoyancy and stability; Bernoulli's equation and the energy equation; Reynold's number; energy losses; and series, parallel, and open channel flow. Students use lab time for problem solving, experimentation, and field applications.
Prerequisites: MAT 1192, PHY 2291.
Corequisites: MAT 1154, PHY 2292.

**7616 Environmental Chemistry 2-3-3**
A course on chemical principles of environmental systems. Topics include: the applications of chemical instrumentation such as gas chromatography, liquid chromatography, and atomic absorption to environmental measurements in air, water, wastewater, and solid waste.
Prerequisites: CHE 2231, CHE 2232.

**7617 Environmental Mountain Ecology 1 2-0-2**
The first part of a two-course series. Topics include: principles of ecology and pollutant dispersion as they pertain to mountain ecosystems and environmental impacts of human activities.
Prerequisites: EVET 7606 or EVET 7623, EVET 7607.

**7618 Environmental Mountain Ecology 2 0-6-2**
A continuation of EVET 7617. An intensive field experience that includes a trip to the mountainous regions of the western United States. Students pay for the trip.
Prerequisites: EVET 7617.

**7643 Calculations for Water Treatment Operators 2-3-3**
Calculations for water treatment applications covered in this course include: applied volume, flow and velocity, chemical dosage, loading rates, detention and retention, and pumping. Also included are mathematical applications for water treatment plant processes, including water sources and storage, coagulation and flocculation, sedimentation, filtration, chlorination, fluoridation, softening, and laboratory basics.
Prerequisites: MAT 1191.

**7644 Calculations for Wastewater Operators 2-3-3**
This course covers the calculation of volumes; flow and velocity, conversions, pumping rates; loading rates, F/M ratio, sludge age, MCRT; efficiency and percentage problems.
Prerequisites: MAT 1191.

Class-Lab-Credit

**7646 Water & Wastewater Technology 3-2-4**
A course on scientific and engineering principles and applications in water quality control. Topics include: concepts and practices in the treatment of industrial and domestic wastewater before discharge to either municipal POTW or the environment, and principles and design of physical, chemical, and biological units in the treatment plant.
Prerequisites: CHE 2200 or CHE 2231.

**7647 Collection & Distribution Systems 2-3-3**
An introduction to the operation and control of water delivery and wastewater collection systems. Topics include: gravity and pumped lines; storage and holding tanks; pumps; system monitoring, repair and rehabilitation; water system depressurization, back-flow prevention, and metering; and wastewater system sewer overflows and gaseous buildup.
Prerequisites: EVET 7614.

**7670 Regulations & Permits 2-3-3**
An introduction to federal, state, and local environmental laws with emphasis on related computer applications. Topics include: TSCA, FIFRA, OSHA, CAA, CWA, SDWA, CERCLA, and RCRA. Students write a research paper and give a presentation using appropriate software packages.
Prerequisites: None.

**7671 Air Pollution Control 3-3-4**
A course on the permitting and controlling of air releases. Topics include: air quality management, environmental and health effects of air pollution, the selection and design of appropriate control equipment, and indoor air pollution, the operation of particulate and gaseous sampling equipment, instrument maintenance and calibration, data analysis, pollen and mold counts, and stack testing.
Prerequisites: EVET 7670.

**7675 Solid Waste Management 2-3-3**
An introduction to the solid waste problem. Topics include: various methods and basic design concepts of solid waste disposal techniques, landfills, incineration, composting, recycling, and emerging technologies in this field.
Prerequisites: None.

**7676 Hazardous Waste Management 2-3-3**
Topics include: the origin of hazardous materials and their impact on humans, plants, and animals; principles and practices in the sampling, storage, transport, treatment and disposal of hazardous wastes; and governmental regulations and permits pertaining to hazardous wastes.
Prerequisites: EVET 7675.

**7677 Treatment Technologies 2-3-3**
An overview of the basic principles and applications of mainstream treatment and monitoring technologies used to prevent, monitor, and control pollution by industries and government agencies. Topics include: physical, chemical, and biological treatment methods.
Prerequisites: CHE 2232.

**7699 Special Problems Seminar - Environmental** **Var-Var-Var**

Individual and independent study and special projects pertaining to the environmental engineering technology field. The study may deal with an idea or concept not usually covered by existing courses at the College, or with a specific problem found in the industry/agency in which the student is employed. Students must make special arrangements with the instructor and program chair.
Prerequisites: Program chair consent.

## EVS Environmental Engineering Technology

**7621 Environmental Science 1** **4-2-4**

An introduction to fundamental principles of environmental science and ecology and their relationship to human health and well-being. Topics include: the types of ecosystems and how they function, elementary soil science, biodiversity, and issues of population growth.
Prerequisites: High school biology or equivalent.

**7622 Environmental Science 2** **3-2-4**

An introduction to the fundamentals of environmental science as it pertains to human activity and the resulting environmental impact. Topics include: water treatment, air pollution control, energy, and solid and hazardous waste management issues.
Prerequisites: High school biology or equivalent.

**7623 Environmental Geology** **3-2-4**

An introduction to the relationship of applied geology to the human environment. Topics include: an overview of geologic concepts and terminology, groundwater hydrogeology, human responsibility to protect these resources from contamination, the geologic aspects of environmental health, land use practices, and resource exploitation.
Prerequisites: CHE 2200 or high school equivalent.

## FIN Finance

**1804 Risk & Insurance** **3-0-3**

Topics include: the concept of risk in the business enterprise; the need for insurance protection against risks in areas of property and liability, casualty, fire, life and health; fundamentals of insurance contracts; and selection of insurers.
Prerequisites: None.

**2960 Principles of Finance 1** **3-0-3**

An introduction to financial institutions, markets, and management. Topics include: the U.S. financial system and how business uses this system to finance operations for short, intermediate, and long terms.
Prerequisites: None.

**2961 Financial Planning** **3-0-3**

Topics include: coordinated, realistic planning in the areas of buying insurance, homes, and investment property; accumulating capital; retirement planning; estate planning; and individual and investment tax planning.
Prerequisites: None.

Class-Lab-Credit

**2962 Principles of Investments** **3-0-3**

Topics include: principles and techniques for selecting and managing a portfolio that includes securities, stocks, and bonds; tailoring the portfolio to the financial needs and resources of the client; and the concepts involved with the sources and uses of investment funds.
Prerequisites: FIN 2960.

**2969 Principles of Finance 2** **3-0-3**

A continuation of FIN 2960. Topics include: an overview of government financing; consumer financing; international financing; and monetary, fiscal, and debt management policies.
Prerequisites: FIN 2960.

**2976 Financial Institutions** **3-0-3**

Topics include: the services, pricing techniques, goals and objectives, management styles, internal problems and risks, and markets in which financial institutions operate.
Prerequisites: None.

## FRN French

**1060 Elementary French 1** **4-0-4**

An introduction to the French language providing the foundation for understanding, speaking, reading, and writing French. Topics include: fundamentals of French intonation, grammar, and syntax. Laboratory work may be required.
Prerequisites: None.

**1061 Elementary French 2** **4-0-4**

A continuation of FRN 1060 providing the foundation for understanding, speaking, reading, and writing French. Topics include: fundamentals of French intonation, grammar, and syntax and more advanced readings. Laboratory work may be required.
Prerequisites: FRN 1060 or 1 year of high school French or equivalent.

**1062 Elementary French 3** **4-0-4**

A continuation of FRN 1061 providing the foundation for understanding, speaking, reading, and writing French. Topics include: fundamentals of French intonation, more complex grammar and syntax, advanced readings, and basic composition. Laboratory work may be required.
Prerequisites: FRN 1061 or 2 years high school French or equivalent.

**1063 Intermediate French 1** **4-0-4**

A review and extension of basic principles of grammar and syntax through composition and conversation, stressing fluency. Topics include: more advanced reading, composition, and short literary pieces. Laboratory work may be required.
Prerequisites: FRN 1062 or 3 years high school French or equivalent.

**1064 Intermediate French 2** **4-0-4**

Continued review and extension of principles of grammar and syntax through composition and conversation, stressing fluency. Topics include: more advanced reading, composition, and longer literary pieces. Laboratory work may be required.
Prerequisites: FRN 1063 or equivalent.

**1065 Intermediate French 3** **4-0-4**
Continued review and extension of principles of grammar and syntax through composition and conversation, stressing fluency. Topics include: more advanced reading, composition, and longer literary pieces. Laboratory work may be required.
Prerequisites: FRN 1064 or equivalent.

# FST Fire Service Technology

**4773 Volunteer Firefighter** **2-2-3**
An introduction to the essentials of firefighting following NFPA 1001 standards. Topics include: basic equipment and procedures pertaining to fire control and suppression. State certification is available.
Prerequisites: None.

**4774 Firefighter Transition** **4-6-6**
A course on the concepts of firefighting strategies and tactics following NFPA 1001 standards. Topics include: HAZMAT, fire cause, prevention, suppression, salvage, and overhaul. This course is a transition from FST 4773 Volunteer Firefighter to FST 4784 Firefighter 2. State certification available.
Prerequisites: FST 4773.

**4783 Firefighter 1** **6-6-8**
An accelerated course for students seeking Firefighter 1 State certification.Topics include: fire cause, equipment and procedures pertaining to fire control, prevention, suppression, salvage, overhaul, and HAZMAT.
Prerequisites: None.

**4784 Firefighter 2** **6-6-8**
A continuation of FST 4783. Topics include: department organization, building construction, suppression systems, company fire control, alarm systems, and response to hazardous materials incidents. Course content complies with NPFA 1001 standards. State certification is mandatory.
Prerequisites: FST 4783 or FST 4774.

**4785 Law and Emergency Service Providers** **3-0-3**
This course explores legal issues related specifically to emergency sevices. Topics include: disciplinary hearings collective bargaining agreements and background checks. Recent court decisions involving current issues such as do not resuscitate orders, duty to act, sexual harassment and Americans With Disabilities Act will be discussed.
Prerequisites: None.

**4786 Fire Company Officer Management** **3-0-3**
The National Fire Academy developed this course to meet the needs of the Company Officer. Topics include: company readiness, preincident planning, incident command, and the communications process.
Prerequisites: None.

**4787 Structures and Fire Concerns 1** **2-0-2**
An introduction to basic construction principles. Topics include: improving the firefighter's ability to recognize common building construction types and anticipate problems that may hinder fire ground procedures and operations.
Prerequisites: None.

Class-Lab-Credit

**4788 Structures and Fire Concerns 2** **2-0-2**
Topics include: improving skills needed during operations and identifying safety concerns in noncombustible and fire resistive structures.
Prerequisites: FST 4787.

**4789 Firefighter Internship** **0-12-2**
Students are assigned to a designated fire department mentor and participate in activities such as house duties, equipment checks, classroom training and drills.
Prerequisites: FST 4783.

**4790 Firefighter Self Rescue** **1-3-2**
Classroom instruction, demonstrations, and practice teach firefighters how to help themselves when their lives are at risk on the fire ground.
Prerequisites: FST 4784.

**4791 Fire Safety Inspector** **6-2-7**
This course meets requirements prescribed in House Bill 590 and National Fire Protection Association 1031. Students complete classroom and practical exercises in basic fire safety inspection procedures and responsibilities. The Ohio Fire Academy developed this course.
Prerequisites: FST 4784, member of Fire Dept.

**4792 Fire Service Blueprint Reading** **2-2-3**
An introductory course that explores architectural and civil engineering symbols and abbreviations used on drawings. Topics include: various systems utilized in buildings including water, fire protection, mechanical devices, and electrical systems including power distribution through lighting systems.
Prerequisites: FST 4784.

# GC Graphic Communications

**1403 Computer Graphics for Printing 1** **2-6-4**
An introduction to page layout utilizing various software applications. Topics include: simple layouts, printer's measurement system, typographic concepts, color selection, and generation of artwork using paint applications, scanners, and the internet. Emphasizes production for the high-end press environment.
Prerequisites: OT 3007.

**1415 Graphic Arts Processes** **2-3-3**
A course on evaluating printing processes including: lithography, flexography, screen, gravure, and letterpress. Lab projects involve basic training in prepress and presswork, and demonstrations of flexographic and screen printing procedures.
Prerequisites: None.

**1419 Survey of Printing Inks** **3-0-3**
A course on the physical characteristics of ink and the manufacturing process for different types of ink used in the printing industry. Topics include: how ink components affect color, drying properties, substrates, and cost.
Prerequisites: None.

Class-Lab-Credit

**1421 Computer Graphics for Printing 2** **2-6-4**
A continuation of GC 1403. Topics include: advanced desktop publishing, introduction to drawing and image editing applications, methods of scanning graphics and text, resolution of files and devices, and essential hardware for the prepress environment.
Prerequisites: GC 1403.

**1422 Graphic Design for Desktop Publishing** **2-2-3**
Topics include: the fundamentals of design, and working with graphics and type to produce various kinds of publications. Students use desktop publishing software, printers, and scanners.
Prerequisites: OT 1850 or instructor consent.

**1425 Film and Plates for Packaging** **1-4-3**
Topics include: the fundamentals of using a step and repeat camera along with the proper darkroom procedure necessary to produce film(s) used to make photopolymer printing plates, and basic operation of a flat bed, solvent-based photopolymer plate-making system.
Prerequisites: GC 1421.

**1426 Packaging and Advertising Processes** **3-0-3**
A course on how packages are created for advertising. Topics include: the development and evaluation of the many packaging for advertising processes such as lithography, flexography, and gravure; corrugated and plastic packaging technology; and digital-on-demand presses for the packaging industry.
Prerequisites: None.

**1429 Screen Printing** **2-6-4**
Topics include: the use and operation of manual and semi-automatic screen printing presses; fundamentals of printing frames, mesh, emulsions, stencils, squeegees and inks; and printing on many substrates and odd-shaped objects.
Prerequisites: GC 1421.

**1430 Label and Packaging Presswork 1** **1-9-4**
Topics include: use and operation of handfed and automatic platen letterpresses; using this equipment to print, perforate, score, diecut, number, emboss, and foil stamp; an introduction to flexographic camera; platemaking; and running a four color narrow web flexo press.
Prerequisites: GC 1421.

**1431 Label and Packaging Presswork 2** **3-9-6**
Topics include: basic hands-on training on a step and repeat camera, photopolymer platemaking, mounting, the operation of a four color 7-inch Comco narrow web flexo press with in-line diecutting and laminating, pressure sensitive substrates, water soluble and UV inks, and other flexo presses and processes.
Prerequisites: GC 1421, GC 1430, GC 1425.

**1439 Intoduction to Offset Presswork** **2-2-3**
A course on sheetfed offset printing. Topics include: techniques of operation and control; moistening systems; comparison of wet and dry forms of lithography; plate comparisons including presensitized, bi-metal, tri-metal, and other grained and grainless synthetics; the adjustments necessary for top quality printing; and use of pressroom and quality control equipment.
Prerequisites: None.

Class-Lab-Credit

**1440 Offset Presswork** **3-9-6**
A course on advanced sheetfed and webfed offset printing. Topics include: consistency of color, contolling dot gain and slur, plugging of halftones, maintaining the ink and dampening systems for high quality printing. Advanced Quality Control production devices will be explained and demonstrated to produce critical top notch printing quality.
Prerequisites: GC 1415 and GC 1439 or equivalent knowledge.

**1449 Printing Estimating 1** **2-3-3**
A course on determining job cost with an emphasis on paper used in sheet-fed offset and flexographic printing. Students use formulas to calculate impositions and the most cost effective printing methods, including ink, spoilage, and quality.
Prerequisites: None.

**1450 Printing Estimating 2** **2-3-3**
A continuation of GC 1449. Topics include: an in-depth determination of job cost including labor, materials, burden, profit, and mark-up; characteristics and types of paper; paper sizes; selection process; proper cuts from mill size sheets; and use of manufacturer's catalogs and price books.
Prerequisites: GC 1449.

**1480 Digital Photography & Printing** **2-3-3**
Introduction to digital photography and how to capture quality images with a hand-held or studio digital camera. Topics include: proper lighting, detail, and color balance; and storing images for other processes. Students print images on a digital press.
Prerequisites: None.

**1481 Computer Graphics for Printing 3** **2-3-3**
A continuation of GC 1421. The course focuses on using desktop publishing, illustration, and image editing software for high-end production processes. Topics include: file construction for various end usage, resolution of files and devices, trapping techniques, retouching, preflighting, and color separations.
Prerequisites: GC 1421.

**1483 Computer Graphics for Printing 4** **2-3-3**
A continuation of GC 1481. Topics include: advanced training in the graphics software emphasizing production, color management of files and devices, color correction, separations, proofing, continuation of trapping concepts, and an introduction to GCR and UCR.
Prerequisites: GC 1481.

**9223 Cooperative Education - Graphics** **1-40-2**
Students seeking an Associate degree participate in a paid field learning experience related to their degree programs. Students must adhere to cooperative education policies and procedures to earn credit. Course may be repeated.
Prerequisites: Admitted to program, 2.0 minimum GPA.

**9243 Cooperative Education Graphics - Parallel** **1-20-1**
Students seeking an Associate degree participate in a paid field learning experience related to their degree program for a minimum of 20 hours per week. Students must also register for academic course requirements during the same term. Students must adhere to cooperative education policies and procedures to earn credit. Course may be repeated.
Prerequisites: Admitted to program, 2.0 minimum GPA.

# GEO Geography

**1551 World Regional Geography 1** **3-0-3**
A study of the characteristics and differences of the major world regions. Topics include: the concepts used to study regional geography; and the cultural, economic, political, historical, and physical characteristics of each region. Includes: Anglo-America, Latin America, Western Europe, Eastern Europe including C.I.S. and Baltic States, and Australia/New Zealand.
Prerequisites: None.

**1552 Cultural Geography** **3-0-3**
A study of the spatial distribution of human customs and activities across the earth's surface. Topics include: causes and problems of population growth; distributions of cultural patterns including language, religions, and social customs; the impact of cultural factors on the political landscape; and the reasons for the location of social groups and cities.
Prerequisites: None.

**1553 World Regional Geography 2** **3-0-3**
A study of the characteristics and differences of the major world regions. Topics include: the concepts used to study regional geography; and the cultural, economic, political, historical and physical features of each region. Includes: Sub-Saharan Africa, the Middle East and North Africa, East Asia including Japan, South Asia, and Southeast Asia.
Prerequisites: None.

# GRM German

**1070 Elementary German 1** **4-0-4**
An introduction to the German language providing the foundation for understanding, speaking, reading, and writing German. Topics include: fundamentals of German intonation, grammar, and syntax. Laboratory work may be required.
Prerequisites: None.

**1071 Elementary German 2** **4-0-4**
A continuation of GRM 1070 providing the foundation for understanding, speaking, reading, and writing German. Topics include: fundamentals of German intonation, grammar, and syntax and more advanced readings. Laboratory work may be required.
Prerequisites: GRM 1070 or 1 year high school German or equivalent.

Class-Lab-Credit

**1072 Elementary German 3** **4-0-4**
A continuation of GRM 1071 providing the foundation for understanding, speaking, reading, and writing German. Topics include: fundamentals of German intonation, more complex grammar and syntax, advanced readings, and basic composition. Laboratory work may be required.
Prerequisites: GRM 1071 or 2 years high school German or equivalent.

**1073 Intermediate German 1** **4-0-4**
Review and extension of basic principles of grammar and syntax through composition and conversation, stressing fluency. Introduces more advanced reading, composition, and short literary pieces. Laboratory work may be required.
Prerequisites: GRM 1072 or 3 years high school German or equivalent.

**1074 Intermediate German 2** **4-0-4**
Continued review and extension of principles of grammar and syntax through composition and conversation, stressing fluency. Topics include: more advanced reading, composition, and longer literary pieces. Laboratory work may be required.
Prerequisites: GRM 1073 or equivalent.

**1075 Intermediate German 3** **4-0-4**
Continued review and extension of principles of grammar and syntax through composition and conversation, stressing fluency. Topics include: more advanced reading, composition, and longer literary pieces. Laboratory work may be required.
Prerequisites: GRM 1074 or equivalent.

# HFT Health and Fitness Technology

**4058 Advanced Life Saving** **1-2-2**
Instruction in life saving techniques that meet the American Red Cross life saving certificate requirements.
Prerequisites: Deep water swimming ability and 500 yard continuous swim.

**4060 Water Safety Instructor Certification** **1-2-2**
Instruction in practice of approved techniques. Meets qualifications for American Red Cross certification.
Prerequisites: HFT 4058.

**4160 Fundamentals of Aerobics** **1-3-2**
Combines stretches, aerobics and resistive exercises to promote cardiorespiratory endurance and enhance strength and flexibility. Classroom topics include: exercise and its effects on the body.
Prerequisites: Informed consent; health form, medical clearance (if applicable).

**4162 Fundamentals of Water Aerobics** **1-3-2**
Low impact aquatic aerobics that improve cardiorespiratory endurance, muscle tone and flexibility. Classroom topics include: exercise and its effects on the body. Opportunity for people of all ages with musculoskeletal difficulties to participate in a fitness program.
Prerequisites: Informed consent, health form, medical clearance (if applicable).

Class-Lab-Credit

**4165 Group Fitness Instructor 2-4-4**
Prepares student for the National Group Fitness Instructor Examination. Topics include: communication skills, education principles, effective exercise design, choreography, safety guidelines and modifications for special populations. Lab includes conducting classes in traditional and step aerobics.
Prerequisites: HFT 4160.

**4166 Aquatic Group Fitness Instructor 3-2-4**
Prepares student for the national Aquatic Instructor Examination. Topics include: communication skills, educational principles, effective exercise design, fundamentals of water properties, choreography, safety guidelines and modifications for special populations. Lab includes classes in the aquatic environment.
Prerequisites: HFT 4162.

**4170 Personal Fitness Trainer 1 3-2-4**
An introduction to techniques used in the fitness field. Topics include: screening and consultation guidelines, dietary and exercise principles, communication, and documentation. Lab includes: skin fold testing; blood pressure; flexibility and resistance testing and training.
Prerequisites: Informed consent, health form, medical clearance (if applicable).

**4171 Personal Fitness Trainer 2 3-2-4**
Provides CSC Certificate and prepares student for the National Health/Fitness Instructor Certification Exam. Topics include: application of dietary and exercise principles, therapeutic exercise, special populations, legal issues, and analysis and evaluation of common fitness techniques and norms.
Prerequisites: HFT 4170.

**4172 Specialty Fitness Training: Larger Adults 1-0-1**
A course in which students apply knowledge, skills, and techniques to prepare for group fitness or one-on-one training with consideration for psychological and physiological needs of larger adults. Credit may be applied to CECs for general certification or a specialty national agency certification.
Prerequisites: Group fitness or personal fitness training certification from Cincinnati State or an approved national/international certification.

**4173 Specialty Fitness Training: Older Adults 1-0-1**
A course in which students apply knowledge, skills, and techniques to prepare for teaching group fitness or one-on-one training with consideration for the psychological and physiological needs of senior citizens. Credit may be applied to CECs for general certification or a specialty national agency certification.
Prerequisites: Group fitness or personal fitness certifcate from Cincinnati State or an approved national/international certifying agency.

Class-Lab-Credit

**4174 Specialty Fitness Training: Children 1-0-1**
A course in which students apply knowledge, skills, and techniques to prepare for group fitness or one-on-one training for children ranging from four to eighteen years old on land and in the water. Credit may be applied to CECs for general certification or a specialty national agency certification.
Prerequisites: Group fitness or personal training certification from Cincinnati State or an approved national/international agency.

**4175 Specialty Fitness Training: Musculoskeletal/Neurologic Disorders 1-0-1**
A course in which students apply knowledge, skills, and techniques for working with arthritis, fibromyalgia, multiple sclerosis, Parkinson's Disease, ALS, low back pain, hip/knee replacements, spinal cord injuries, and cancer clients. Credit may be applied to CECs for general certification or a specialty national agency certification.
Prerequisites: Group fitness or personal training certification from Cincinnati State or an approved national/international certifying agency.

**4176 Specialty Fitness Training: Nutrition and Exercise 1-0-1**
A course beyond basic certification on nutrition through the lifespan. Emphasizes nutritional supplements, fad diets, and athletic performance. Credit may be applied to CECs for general certification or a specialty national agency certification.
Prerequisites: Group fitness or personal training certification from Cincinnati State or an approved national/international agency.

**4177 Specialty Fitness Training: Perinatal 1-0-1**
A course in which students apply knowledge, skills, and techniques for working with perinatal and postpartum clients using the American College of Obstetricians and Gynecologists (ACOG) guidelines. Credit may be applied to CECs for general certification or a specialty national agency certification.
Prerequisites: Group fitness or personal training certification from Cincinnati State or an approved national/international certifying agency.

**4178 Specialty Fitness Training: Common Chronic Diseases 1-0-1**
A course in which students apply knowledge, skills, and techniques for teaching fitness and wellness to clients with chronic illnesses such as cardiovascular, pulmonary, and metabolic diseases. Credit may be applied to CECs for general certification or a specialty national agency certification.
Prerequisites: Group Fitness or Personal Fitness Training Certification from Cincinnati State or an approved national/international certifying agency.

**4180 Leading and Developing Exercise Programs 2-2-3**
Topics include: exploration of leadership concepts and styles as they relate to the development and implementation of exercise programs for individuals and groups.
Prerequisites: None.

**4181 Fitness Assessment and Exercise Prescription 2-2-3**
Methods of assessing health status, cardiorespiratory and muscular fitness, and flexibility and body composition in healthy individuals; and development and evaluation of exercise prescriptions.
Prerequisites: None.

**4182 Community Health Assessment 2-2-3**
Techniques for screening, appraising, and the developing health history and activity patterns for the community. Students complete a community health and fitness needs assessment project.
Prerequisites: HFT 4181.

**4183 Health and Fitness Internship 1-16-3**
Students apply health and fitness knowledge and skills in a community setting. Students develop a portfolio of individual competencies.
Prerequisites: Instructor consent.

**4185 Fundamentals of Resistance Training 2-2-3**
Safe, effective, and efficient resistance training programming techniques. Topics include: evaluation of biomechanical, physiologic, and genetic factors affecting strength and muscle tissue gain.
Prerequisites: Informed consent, health questionnaire, medical clearance (if applicable).

**4186 Resistance Training Development and Implementation 2-2-3**
Topics include: advanced application of proper resistance training form, technique, spotting, program design, and implementation for healthy adults and special populations.
Prerequisites: HFT 4185.

**4188 Special Studies in Health and Fitness Var-Var-Var**
A student-initated academic pursuit, mutually agreed upon by the student and faculty member and carried on outside the classroom. Before registration, the student must have the plan of study approved by the supervising faculty member and the HFT program chair.
Prerequisites: Instructor consent.

**4189 Special Studies in Health and Fitness Var-Var-Var**
A student-initiated academic pursuit, mutually agreed upon by the student and the faculty member, carried on outside the classroom. Before registration, the plan of study must be approved by the faculty member and the HFT program chair.
Prerequisites: Instructor consent.

**9368 Cooperative Education - Health and Fitness Technology 1-40-2**
Health and Fitness Technology students apply knowledge and skills acquired in classes in a full-time paid learning experience. Students must adhere to the Health Technologies Division Student Handbook and program requirements.
Prerequisites: Admitted to Health and Fitness Technology program, coordinator consent, 2.0 minimum GPA.



**9378 Parallel Cooperative Education - Health and Fitness Technology 1-20-1**
Health and Fitness Technology students apply knowledge and skills acquired in classes in a part-time paid learning experience. Students must adhere to the Health Technologies Division Student Handbook and program requirements.
Prerequisites: Admitted to Health and Fitness Technology program, coordinator consent, 2.0 miminum GPA.

# HIM Health Information Management

**4405 Orientation to Health Information 2-2-3**
Orientation to the health information field. Topics include: history, philosophy and development of the profession; acquisition and maintenance of health care data; storage and retrieval systems; and record retention, and filing and numbering.
Prerequisites: Admitted to Health Information Management program.

**4407 Health Record Content and Format 2-2-3**
Topics include: the content of the health record and documentation requirements.
Prerequisites: MCH 4000.

**4410 CPT Coding 2-2-3**
Introduction to ambulatory coding systems, with emphasis on Physicians Current Procedural Terminology, Fourth Edition (CPT-4).
Prerequisites: MCH 4000.

**4411 Clinical Abstracting 2-4-4**
Topics include: analysis and interpretation of clinical documentation, UHDDS guidelines and UB-92 requirements. Students abstract supportive data to validate diagnoses and procedures and use the information to create clinical databases.
Prerequisites: MCH 4000, HIM 4407.

**4415 Legal Aspects of Health Information 3-0-3**
A study of the medical record as a legal document. Topics include: confidentiality, access to information, legal terminology, and retention.
Prerequisites: None.

**4417 Statistical Applications in Health Care 3-2-4**
Topics include: application of statistical formulas including average daily census, percentage of occupancy, and death rates; spreadsheet applications and data presentation. Students must have a calculator.
Prerequisites: HIM 4420, OT 1863.

**4420 ICD-9-CM Coding 1 2-2-3**
Introduction to basic principles for coding ICD-9-CM classification system.
Prerequisites: MCH 4000.

**4421 ICD-9-CM Coding 2 2-2-3**
A continuation of HIM 4420. Topics include: cardiovascular system, neoplasms, pregnancy, injuries, and poisonings.
Prerequisites: HIM 4420.

**4422 ICD-9-CM Coding 3** **2-2-3**
A continuation of HIM 4421. Topics include: advanced ICD-9-CM coding principles such as prospective payment system, decision making leading to optimal DRG assignment, and coding quality assurance.
Prerequisites: HIM 4421, BIO 4020.

**4428 Health Information Management-Record Management Directed Practice** **0-8-1**
Students practice in a medical record department. Activities include: admission/discharge procedures, correspondence and release of medical information, assembly/analysis, record control, and projects in health information.
Prerequisites: HIM 4405, HIM 4407, HIM 4415.

**4429 Health Information Management Directed Practice 2** **0-16-3**
Special interest assignments and exposure to alternative specialties in the medical record field.
Prerequisites: HIM 4422, HIM 4428, HIM 4451.

**4431 Health Information Department Management** **4-0-4**
Topics include: management functions, organizational structure, line and staff relationships, position descriptions, job procedures, personnel evaluations, budgeting, and specific issues in medical record department management.
Prerequisites: HIM 4405, HIM 4407.

**4432 Alternative Health Record Systems** **3-0-3**
Topics include: health record content and format, regulatory and accreditation requirements, storage and retention needs, classification systems, data collection/reporting and quality issues in specialized patient care settings.
Prerequisites: HIM 4405, HIM 4407, HIM 4415, HIM 4421.

**4450 Reimbursement Methodologies** **2-2-3**
Topics include: various methods of reimbursement for health care services, and an overview of auditing procedures necessary for compliance and accurate reimbursement.
Prerequisites: HIM 4421, HIM 4410.

**4451 Advanced CPT Coding** **2-2-3**
Guidelines for accurate CPT coding assignment of surgical cases. Students abstract information from actual operative reports and case studies.
Prerequisites: HIM 4410.

**4452 Coding Skills Clinical Lab** **0-3-1**
A clinical lab course in which students practice and demonstrate competency in ICD-9-CM and CPT coding skills.
Prerequisites: HIM 4410, HIM 4421.

**4453 Quality Assessment in Health Information Management** **2-0-2**
Topics include: implementing quality tools as they relate to HIM activities and the concepts and theories of utilization management and risk management.
Prerequisites: HIM 4417, HIM 4420.

**4490 HIM Capstone** **1-0-1**
Topics include: review of theory and practice in health information management in preparation for national examination.
Prerequisites: Completion of all courses in the HIM curriculum.



**4494 Workshops in Medical Records** **3-0-3**
Consideration and study of selected issues and topics in the medical records area designed to meet current needs. Content and emphasis vary from year to year.
Prerequisites: None.

**4498 Special Studies Health Information Management** **Var-Var-Var**
A student-initiated academic pursuit, mutually agreed upon by the student and faculty member and carried on outside the classroom. Before registration, the student must have the plan of study approved by a supervising faculty member and the Dean of Health Technologies.
Prerequisites: Instructor consent.

**4499 Special Studies - Health Information Management** **Var-Var-Var**
A student-initiated academic pursuit, mutually agreed upon by the student and faculty member and carried on outside the classroom. Before registration, the student must have the plan of study approved by a supervising faculty member and the Dean of Health Technologies. Students receive grades of S or U for this course.
Prerequisites: None.

**9373 Cooperative Parallel Education - HIM** **1-20-1**
Health Information Management students participate in part-time paid learning experience while completing other program requirements. This experience provides an opportunity to apply knowledge and skills acquired in classes. The student must adhere to the Health Technologies Division Student Handbook and program requirements.
Prerequisites: Admitted to program, coordinator consent, 2.0 mimimum GPA.

# HLT Health Technologies

**4061 Contemporary Health Care Issues** **3-0-3**
A course on health care economics and new trends and issues in health care.
Prerequisites: None.

**4094 Workshops in Health Technologies** **3-0-3**
A study of selected issues and topics in the health technologies area that meets current needs. Content and emphasis vary from year to year.
Prerequisites: None.

**4098 Special Studies in Health** **Var-Var-Var**
A student-initiated academic pursuit, mutually agreed upon by the student and faculty member and carried on outside the classroom. Before registration, the student must have a plan of study approved by a supervising faculty member and the Dean of Health Technologies.
Prerequisites: Varies.

**4099 Special Studies in Health** **Var-Var-Var**
A student-initiated academic pursuit, mutually agreed upon by the student and faculty member and carried on outside the classroom. Before registration, the student must have the plan of study approved by a supervising faculty member and the Dean of Health Technologies. Students receive grades of S or U for this course.
Prerequisites: Varies.

**9320 Internship - Health Technologies** **1-20-1**
Students participate in an unpaid field learning experience 16 to 20 hours per week. Students must adhere to Health Division co-op policies and procedures to earn credit.
Prerequisites: Admitted to program, coordinator consent, 2.0 minimum GPA.

## HNR Honors Experience

**1695 Orientation to Honors** **1-0-1**
A course required for students admitted to the Cincinnati State Honors Experience. Topics include: the expectations, responsibilities, and opportunities of the Honors Experience; and planning and implementing personal and academic skills and strategies needed for Honors courses. This course is the pre/co-requisite for all other Honors classes.
Prerequisites: Admitted to the Honors Experience.

**1696 Honors Colloquium** **Var-Var-Var**
Study and discussion of selected interdisciplinary topics in a seminar format, emphasizing student inquiry, critical thinking, and critical analysis of material. Students complete papers, projects, and/or presentations. Topics vary from term to term.
Prerequisites: HNR 1695 and ENG 1001.

## HOSP Hotel-Restaurant Management

**9224 Cooperative Education-Hospitality Technologies** **1-40-2**
Students seeking an Associate degree participate in a paid field learning experience related to their degree program. Students must adhere to cooperative education policies and procedures to earn credit. Course may be repeated.
Prerequisites: Admitted to program, 2.0 minimum GPA.

**9244 Cooperative Education Hospitality - Parallel** **1-20-1**
Students seeking an Associate degree participate in a paid field learning experience related to their degree program for a minimum of 20 hours per week. Students must also register for academic course requirements during the same term. Students must adhere to cooperative education policies and procedures to earn credit. Course may be repeated.
Prerequisites: Admitted to program, 2.0 minimum GPA.

## HRM Hotel-Restaurant Management

**2801 Food & Beverage Sanitation & Safety** **3-0-3**
A study of sanitation and safety and their importance in the food service industry. Topics include: information and methods to help food service managers apply sanitation procedures to good handling functions. This course is the National Restaurant Association's Educational Institute certification course.
Prerequisites: None.

**2802 Food & Beverage Cost Control 1** **3-0-3**
A course on food service cost control systems emphasizing purchasing and production. Topics include: buying, receiving, inventories, portioning, and determining costs. Completion of DE 0024 or equivalent recommended.
Prerequisites: None.

**2803 Menu Production & Facilities Planning** **3-0-3**
Topics include: principles of menu development such as menu planning, construction constraints, analysis, and pricing.
Prerequisites: None.

Class-Lab-Credit

**2804 Catering & Banquets** **3-0-3**
A comprehensive study of a hotel banquet operation and catering office.
Prerequisites: None.

**2805 Food & Beverage Supervision** **3-0-3**
Topics include: the problems of human resources and the elements of leadership and supervision.
Prerequisites: None.

**2806 Hospitality Beverage Management** **3-0-3**
Topics include: studies of actual situations, pricing and profit, beverage personnel job descriptions, terms, merchandising, and liquor laws in relation to hospitality refreshments.
Prerequisites: None.

**2808 Food and Beverage Service Lab** **1-3-2**
A course on the practical application of the basic skills of professional dining room service.
Prerequisites: None.

**2811 Introduction to Hospitality Management** **3-0-3**
Topics include: a study of the various departments within the framework of private clubs, hotels, and motels; available vocational opportunities; and a look at the future.
Prerequisites: None.

**2812 Hotel Front Office Procedure** **4-0-4**
Study of front office management and operation with emphasis on the use of various types of front office equipment, supplies, and procedures. Practical operating procedures in performing the hotel night audit including registration, rates, posting charges, and credits.
Prerequisites: None.

**2813 Hospitality Housekeeping** **3-0-3**
Topics include: housekeeping and its administration, control of supplies, sanitation, cleaning techniques, decoration, equipment and related subjects.
Prerequisites: None.

**2818 Food & Beverage Cost Control 2** **4-0-4**
A continuation of HRM 2802. Topics include: food service cost control systems emphasizing sales control, profit and loss, and labor control.
Prerequisites: HRM 2802.

**2821 Hospitality Sales & Marketing** **3-0-3**
Topics include: marketing and sales techniques in the hospitality industry, purposes and goals of internal and external marketing strategies, marketing plans, personal sales, advertising, and market segmentation.
Prerequisites: None.

**2828 Nutrition for Food Service** **2-2-3**
Topics include: the characteristics of the major nutrient groups, their relationship to diet and health, the foods in which they are found, and application of these principles to menu planning, marketing, food purchasing, preparation, and service activities.
Prerequisites: None.

**2830 Fundamentals of Cooking** **2-4-4**
Topics include: an overview of the principles of cooking, use of commercial equipment, and guidelines for proper service and merchandising of food.
Prerequisites: None.

**2840 Restaurant Operations** **4-0-4**
Topics include: applying marketing, financial, and human resource concepts used in restaurant operations. This is the capstone course for restaurant management students and should be taken near the completion of the curriculum coursework.
Prerequisites: HRM 2805, HRM 2818, HRM 2821.

## HST History

**1561 History of World Civilization 1** **3-0-3**
An introduction to the major trends in the development of Western and Asiatic civilizations from ancient Eurasian times to the fall of Byzantium.
Prerequisites: None.

**1562 History of World Civilization 2** **3-0-3**
An introduction to the major trends in Western and Asiatic civilizations from the fall of Byzantium to the Congress of Vienna. Includes the native civilizations of the Americas.
Prerequisites: None.

**1563 History of World Civilization 3** **3-0-3**
An introduction to the major trends in Western and Asiatic civilizations from the Congress of Vienna to contemporary times.
Prerequisites: None.

**1568 American History 1** **3-0-3**
General historical survey of the formative years of the Republic from Colonial America through the outbreak of the American Civil War.
Prerequisites: None.

**1569 American History 2** **3-0-3**
General historical survey of the United States from the Civil War through the end of World War I.
Prerequisites: None.

**1570 American History 3** **3-0-3**
General historical survey of the United States from the Roaring Twenties to contemporary times.
Prerequisites: None.

**1575 History of Africa** **3-0-3**
General survey of African history with emphasis on the Diaspora, and the political, social, and cultural factors creating modern Africa.
Prerequisites: None.

**1576 African-American History 1** **3-0-3**
African-American history from 1619 to the Civil War of 1860. Topics include: the different experiences of Blacks in the New World and the various factors that have shaped African-American communities in America.
Prerequisites: None.

Class-Lab-Credit

**1577 African-American History 2** **3-0-3**
A history of African-Americans from 1860 to the Depression era. Topics include: the role of African-Americans in the Civil War, their post-war experiences, the intensification of segregation, and their involvement in WWI and the post-war era.
Prerequisites: None.

**1578 African-American History 3** **3-0-3**
A history of African-Americans from the great depression to the present. Topics include: African-Americans in WWII, involvement in African resistance movements, rise of civil rights movements, and important African-American personalities.
Prerequisites: None.

## HUM Arts & Humanities

**HUM 1602 = CULT 1602 Issues in Human Diversity**

**HUM 1645 = CULT 1645 Technology and Culture**

**HUM 1646 = CULT 1646 Mass Media and Culture**

**HUM 1647 = CULT 1647 Work and Society**

**HUM 1680 = CULT 1680 Introduction to Film Studies**

**HUM 1660 = ART 1660 Introduction to Art**

**HUM 1662 = ART 1662 Art of the Ancient World**

**HUM 1663 = ART 1663 Art of the Medieval and Renaissance World**

**HUM 1664 = ART 1664 Art of the Modern World**

**HUM 1665 = MUS 1665 Introduction to Music 1**

**HUM 1666 = MUS 1666 Introduction to Music 2**

**HUM 1667 = MUS 1667 Introduction to Music 3**

**HUM 1670 = THE 1670 Introduction to Theater**

**1698 Topics in Humanities** **Var-Var-Var**
Study and discussion of selected topics in the humanities, which may be drawn from one field within the humanities (e.g., urban history, criminology, social welfare in society, film studies) or may be interdisciplinary (e.g., popular culture studies, women's studies). Content and emphasis may vary from term to term.
Prerequisites: ENG 1001.

**1699 Special Problems in Humanities** **Var-Var-Var**
Individual study and special projects pertaining to one or more areas of the humanities. Open to students wishing to conduct independent study and/or research. Enrollment requires prior consent of the supervising instructor and the Dean of Humanities and Sciences.
Prerequisites: 6 credits of English composition.

**9801 Career Exploration Seminar 3-0-3**
Students seeking an Associate of Arts or Associate of Science degree assess their life experience, skills, and interests, and carry out a variety of structured activities (including directed reading and writing assignments) in order to set realistic career goals. Students should complete this course during their second or third academic term.
Prerequisites: None.

**9802 Internship - Humanities & Sciences 1-40-2**
Students seeking an Associate of Arts or Associate of Science degree participate in a part-time (15 to 32 hours per week for one academic term) unpaid field learning experience related to the student's career goals. Students must adhere to degree program internship policies and procedures to earn credit. The course may be repeated for additional credit.
Prerequisites: HUM 9801.

**9803 Cooperative Education Humanities & Sciences 1-40-2**
The student seeking an Associate of Arts or Associate of Science degree participates in a full-time (32 to 40 hours per week for one academic term) paid field learning experience related to the student's career goals. Students must adhere to the degree program cooperative education policies and procedures to earn credit. The course may be repeated for additional credit.
Prerequisites: HUM 9801.

**9804 Parallel Cooperative Education Humanities & Sciences 1-20-1**
The student seeking an Associate of Arts or Associate of Science degree participates in a part-time (15 to 32 hours per week for one academic term) paid field learning experience related to the student's career goals. Students must adhere to the degree program cooperative education policies and procedures to earn credit. This course may be repeated for additional credit.
Prerequisites: HUM 9801.

**9805 Career Education Project Humanities & Sciences 1-40-2**
The student seeking an Associate of Arts or Associate of Science degree completes individual study or a special project related to the student's major field and pertaining to the student's career goals. The student, working with an assigned faculty mentor, defines the project goals, carries out project tasks, and evaluates the results. This course may be repeated for additional credit.
Prerequisites: HUM 9801 and co-op coordinator consent.

**9806 Career Education Project 2 Arts & Sciences 2-40-4**
The student seeking an Associate of Arts or Associate of Science degree completes individual study or a special project related to the student's major field and pertaining to the student's career goals. The student, working with an assigned faculty mentor, defines the project goals, carries out project tasks, and evaluates the results. This course may not be repeated for additional credit.
Prerequisites: HUM 9801 and co-op coordinator consent.



# IMT Integrative Medical Massage Therapy

**4085 Clinical Anatomy and Physiology for the Massage Therapist 1 3-6-5**
An introduction to the human body, skeletal and muscular systems, and biochemistry in the context of integrative medical massage.
Prerequisites: BIO 4016.
Corequisites: IMT 4857.

**4086 Clinical Anatomy and Physiology for the Massage Therapist 2 3-6-5**
Topics include: cell, tissue, integument, and articulation in the context of integrative medical massage.
Prerequisites: IMT 4085, IMT 4857.
Corequisites: IMT 4858.

**4087 Clinical Anatomy and Physiology for the Massage Therapist 3 3-6-5**
Topics include: myology, neurology, and special senses (olfactory, gustatory, visual, and auditory) in the context of integrative medical massage.
Prerequisites: IMT 4086, IMT 4858.
Corequisites: IMT 4859.

**4088 Clinical Anatomy and Physiology for the Massage Therapist 4 3-6-5**
Topics include: the cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive systems in the context of integrative medical massage.
Prerequisites: IMT 4087, IMT 4859.
Corequisites: IMT 4852.

**4851 Integrative Medical Massage in Health Care Settings 1-3-2**
Theory and practice of appropriate intervention and referral protocols required of the Medical Massage Therapist working with clients in a variety of health care settings.
Prerequisites: IMT 4087, IMT 4859.
Corequisites: IMT 4852, IMT 4088.

**4852 Integrative Medical Massage Student Clinic 3-6-5**
A simulated clinical setting in which the student provides direct patient care, applying structural and functional assessment of neuromuscular and skeletal disorders, under the direct supervision of a Medically Licensed Massage Therapist.
Prerequisites: IMT 4892.
Corequisites: IMT 4851.

**4855 Introduction to Integrative Medical Massage 1-3-2**
Topics include: history of medical massage, therapeutic environment, Swedish massage techniques, integrative professional ethics, applied anatomy, and integument pathology.
Prerequisites: Personal Education Number issued by the Ohio Medical Board.

**4856 Integrative Medical Massage 2 3-6-5**
A continuation of IMT 4855. An introduction to medical history taking, Swedish massage techniques, professional ethics in integrative medical massage, palpatory practice, applied anatomy, and clinical pathology.
Prerequisites: IMT 4855.

**4857 Integrative Medical Massage 3** **3-6-5**
A continuation of IMT 4856. Topics include: Swedish massage techniques, assessment of musculoskeletal health, pathology of soft tissue, Muscle Energy Techniques, integrative professional ethics, and applied anatomy.
Prerequisites: BIO 4016, IMT 4856.
Corequisites: IMT 4085.

**4858 Integrative Medical Massage 4** **3-6-5**
A continuation of IMT 4856. Topics include: Swedish Massage techniques, assessment of musculoskeletal and joint health, pathology of joints, professional ethics of integrative medicine, and the taking and recording of medical history.
Prerequisites: IMT 4085, IMT 4857.
Corequisites: IMT 4086.

**4859 Integrative Medical Massage 5** **3-6-5**
A continuation of IMT 4858. Topics include: Swedish massage techniques theory review, introduction to craniosacral therapy as a soft tissue modality, assessment and treatment of soft tissue disorders, and documenting soft tissue function for the medical record.
Prerequisites: IMT 4086, IMT 4858.
Corequisites: IMT 4087.

**4892 Business Practices for the Medical Massage Therapist** **3-0-3**
Topics include: practices related to establishing a professional practice such as marketing, record keeping, taxes, insurance, and Ohio law as it applies to the licensed massage therapist. Students develop a business plan and design a professional office.
Prerequisites: MGT 2971.

**4893 Integrative Medical Massage Therapy Community Service** **1-8-2**
Community service experience in which the student applies knowledge and skills of integrative medical massage.
Prerequisites: IMT 4852.
Corequisites: IMT 4894.

**4894 IMT Comprehensive Review** **3-3-4**
A comprehensive review of anatomy and physiology and massage therapy theory and practice in preparation for the Ohio Medical Board Exam.
Prerequisites: IMT 4088, IMT 4852.
Corequisites: IMT 4893.

# IT Information Technologies

**5102 Introduction to Macintosh** **2-2-3**
An introduction to operating the Apple Macintosh computer. Topics include: Microsoft Word word processing software and Claris Draw graphics software. Competency in typing or keyboarding is recommended.
Prerequisites: None.

**5103 Macintosh Applications-Excel/FileMaker** **2-2-3**
An introduction to operation of Microsoft Excel spreadsheet software and Claris FileMaker Pro database management software on the Apple Macintosh computer. Competency in typing or keyboarding is recommended.
Prerequisites: IT 5102 or IT 5410 or equivalent experience.

Class-Lab-Credit

**5105 Macintosh Applications - Microsoft Word** **2-2-3**
An introduction to operation of Microsoft Word word processing software on the Apple Macintosh computer. Competency in typing or keyboarding is recommended.
Prerequisites: None.

**5106 Macintosh Applications - FileMaker Pro** **2-2-3**
An introduction to operating Claris FileMaker Pro database management software on the Apple Macintosh computer. Competency in keyboarding is recommended.
Prerequisites: IT 5102 or IT 5410 or equivalent experience.

**5116 Macintosh Applications - Adobe PageMaker** **2-3-3**
An introduction to desktop publishing techniques for creating, revising, and producing print and multimedia materials using Adobe PageMaker. Topics include: selecting appropriate page layouts, formatting text, positioning graphics, and applying appropriate typographic and design enhancements. Students should complete IT 5420 prior to enrolling in this course or should enroll in both courses during the same term.
Prerequisites: IT 5102 or IT 5410 or equivalent.
Corequisites: IT 5420.

**5120 LAN Administration: Novell** **3-2-4**
A course in user administration issues for Novell local area network technology. Topics include: adding users, controlling users, and making network resources available to users; troubleshooting and diagnosing common problems for the network users; making Windows available; and setting up user scripts and menus.
Prerequisites: IT 5231, IT 5211.

**5121 LAN Administration: Windows NT** **3-2-4**
A course in user administration issues for Microsoft Windows NT local area network technology. Topics include: adding and deleting users, changing user privileges, and installing client software.
Prerequisites: IT 5231, IT 5211.

**5130 Telecommunications Management** **3-2-4**
A course on business telephone systems, equipment, services, and management. Topics include: PBX, Digital IBX, ISDN, SDN, DDS, ACD T-1, WATS, Megacomm, tariffs, wire distribution systems, documentation, and integration between computers and phone systems.
Prerequisites: None.

**5131 Network Management/Help Desk** **3-2-4**
A course in evaluating the operation of a help desk from all levels. Topics include: actual operation, network management systems/software, troubleshooting with a network management system, server management, and configuring for fault tolerance.
Prerequisites: IT 5201, IT 5206.

**5151 Network Communications 1** **2-3-3**
A course on network and basic operation systems. Topics include: network orientation, connecting components, architecture, operations, and problem solving. This course helps prepare students to pass the Microsoft Exam, Networking Essentials, a first exam in the process of becoming a Microsoft Certified Systems Engineer (MCSE).
Prerequisites: IT 5201 or BMT 7739.

**5152 Network Communications 2** **2-3-3**
A course on network hardware and software requirements for medium to large sized data networks. Topics include: network hubs, bridges, Ethernet switches, routers, gateways, and network software. Students set up hardware and software to demonstrate the operation of an expandable network.
Prerequisites: IT 5151.

**5153 Network Communciations 3** **2-3-3**
A course on advanced networking. Topics include: Gateway/WAN connections, use of DNS, Proxy Servers, firewalls and other network services, ATM devices, Gigabit Networks, Voice over IP, virtual private networks and wireless networks. Students design a variety of network topologies in lab.
Prerequisites: IT 5152.

**5201 Information Technology Concepts** **2-3-3**
An overview of information technologies. Topics include: terminology, hardware and software concepts, and career development issues. Lab exercises expand understanding of key concepts.
Prerequisites: OT 1850 or equivalent experience.

**5202 Programming Logic and Methods** **2-3-3**
An introductory course in programming logic, methods, and documentation, emphasizing the structured approach to programming. Lab exercises focus on typical business applications.
Prerequisites: IT 5201.

**5204 Program Design 1** **2-3-3**
An introduction to the basic elements of program design. Topics include: the sequence and iteration process, decision trees, decision tables, algorithms, flow charts, and basic program functions of business applications.
Prerequisites: None.

**5205 Program Design 2** **2-3-3**
A continuation of IT 5204. Topics include: reading flowcharts, creating pseudocode for fundamental programming concepts for business applications, data flow diagrams, and database concepts.
Prerequisites: IT 5205.

**5206 Programming Logic and BASIC** **4-6-6**
An introductory course in programming logic, methods, and documentation emphasizing the structured approach to programming. Students use typical business applications as problems, incorporating BASIC programming using structured programming techniques. Keyboarding ability necessary.
Prerequisites: None.
Corequisites: IT 5201, MAT 1124.

**5207 Systems Analysis and Design** **2-3-3**
A complete methodology of analyzing and designing computer-oriented information processing systems. Topics include: data collecting, data structure, file structure and design, input editing and volume consideration, processing requirements, output formats, real time, and time sharing systems. The IT major should complete at least 15 credits in IT coursework before enrolling in IT 5207.
Prerequisites: IT 5206.

Class-Lab-Credit

**5208 PC Software Support** **3-2-4**
An introductory course in PC software support processes. Topics include: using utility programs to back up and recover from hardware and software disasters, installing new software and updating existing programs, optimizing computer performance using software tools, and modifying/optimizing the Windows environment.
Prerequisites: IT 5232.

**5211 Data Communications 1** **2-3-3**
An introductory course in business data communications. Topics include: basic terminology and concepts, operation and design of data communications systems, and a logical approach to recognizing communication problems.
Prerequisites: IT 5201.

**5212 Data Communications 2** **3-2-4**
A continuation of IT 5211. Topics include: wide-area communications systems used to link business communications equipment, communications test equipment, software testing programs, the model for Open Systems Interconnection of the International Standards Organization (ISO), analysis of protocols, transmission cables and connectors, and software diagnosis of communications problems.
Prerequisites: IT 5211.
Corequisites: EET 7702.

**5221 Introduction to Video Production** **2-3-3**
An introduction to the video production process from concept to completion. Topics include: industry terminology, use and care of equipment, shot techniques, digital editing techniques, and planning methods related to budgeting and to the preparation of storyboards.
Prerequisites: IT 5420.
Corequisites: IT 5441.

**5222 Audio Production/Editing 1** **3-4-5**
An introduction to audio recording and editing, emphasizing essential elements needed to record, mix, apply effects, and produce a digital audio file for use in multimedia products. Topics include: basic audio terminology, properties of audio signals and audio recording equipment, microphone fundamentals, signal equalization, uses of mixer equipment, signal processing with effects equipment, and uses of computer software to produce an audio file.
Prerequisites: IT 5221.
Corequisites: IT 5224.

**5223 Audio Production/Editing 2** **3-4-5**
A continuation of IT 5222, emphasizing live audio recording and production techniques needed to create professional audio/video presentations. Topics include: concepts of MIDI data and files, incorporating MIDI files into other audio editing environments, and MIDI synchronization techniques.
Prerequisites: IT 5222, IT 5224.
Corequisites: IT 5225.

Class-Lab-Credit

**5224 Video Production/Editing 1** **3-4-5**
A course on professional techniques for video and film production and editing, emphasizing use of Adobe Premiere and Adobe After Effects as editing tools. Topics include: effective and efficient production of high quality work, using computer tools for compositing shots, and creation of digital effects.
Prerequisites: IT 5221.
Corequisites: IT 5222.

**5225 Video Production/Editing 2** **3-4-5**
A continuation of IT 5224, emphasizing use of Avid Xpress DV as an editing tool.
Prerequisites: IT 5222, IT 5224.
Corequisites: IT 5223.

**5226 Gripping Techniques** **3-4-5**
An introduction to the use of gripping skills and equipment as related to video/film production. Topics include: strategies necessary to anticipate shooting needs and problem solving.
Prerequisites: IT 5221.

**5227 Lighting Techniques** **3-4-5**
An introduction to lighting requirements for video/film production. Topics include: basic electrical theory, lighting fixtures, power distribution, and color theory. Lab work includes: analyzing the lighting requirements for a production and designing a standard lighting plot.
Prerequisites: IT 5221.

**5228 Audio/Video Project** **2-8-5**
A project-based course in which students work in teams to complete a video production from design phase to presentation.
Prerequisites: IT 5223, IT 5225, IT 5226, IT 5227.

**5229 Audio/Video/Film Seminar** **2-0-2**
A course in which students meet with local and/or national professionals in the fields of audio, video, and/or film production for discussion of professional issues and concerns.
Prerequisites: Program chair consent.

**5230 Introduction to Computer Operations** **2-3-3**
Instruction in the operational function of the key-operated equipment and introduction to computer operations. Laboratory work reinforces these principles.
Prerequisites: High school typing or OT 3001.

**5231 Operating Systems: DOS/Windows 1** **2-3-3**
An introduction to the Microsoft DOS and Windows operating systems used on PCs. Topics include: basic commands and options of DOS; creating, naming, and manipulating files; subdirectories; batch files; start-up files; and Windows utilization and management. Lab work reinforces concepts.
Prerequisites: None.

**5232 Operating Systems: DOS/Windows 2** **2-3-3**
A continuation of IT 5231. Topics include: additional utilities, drivers, memory management, and functions of DOS; constructing DOSKEY macros and batch files with conditions and iterations; backing up and recovering from directory and file errors; third party utilities such as Norton; and managing and installing applications under Windows.
Prerequisites: IT 5231.

Class-Lab-Credit

**5233 Operating Systems: AS/400 1** **2-3-3**
Students use the IBM OS/400 operating system to become acquainted with fourth generation operating systems. Topics include: using Control Language to expedite operations and to create accounts, libraries, and files; and writing Control Language procedures programs. Students should have some programming experience.
Prerequisites: None.

**5234 Operating Systems: AS/400 2** **2-3-3**
A continuation of IT 5233. Topics include: writing user-assisting procedures in Control Language and using system commands that enable efficient system management.
Prerequisites: IT 5233.

**5240 Advanced Facilities: AS/400** **4-6-6**
Topics include: the AS/400 tools and facilities, AS/400 architecture and operating systems, and CL syntax and spool file concepts. Students work with applications such as SEU, PDM, SDA, Query 400, DFU, DDS, OPNQRYF, and CPYF.
Prerequisites: IT 5230.

**5241 Applications: AS/400** **2-3-3**
A continuation of IT 5240. Students use the AS/400 as a problem-solving tool and work with business applications such as general ledger, accounts payable, accounts receivable, order entry, and inventory management systems.
Prerequisites: IT 5206, IT 5240.

**5247 Systems Analysis & Design Project** **2-3-3**
Students analyze, design, and implement a solution to a business problem using computerized project management tools and methodologies. Students must complete a presentation of the finished project.
Prerequisites: None.
Corequisites: IT 5207.

**5251 Structured COBOL 1** **4-6-6**
Students use the COBOL-85 standard language in the structured programming environment, emphasizing debugging techniques Assignments use disk, printer and terminal data.
Prerequisites: Grade of C or higher in IT 5206.

**5252 Structured COBOL 2** **4-6-6**
A continuation of IT 5251. Topics include: advanced COBOL techniques using randomly processed disc files and accessing indexed-sequential and direct-access files using keys and algorithms.
Prerequisites: Grade of C or higher in IT 5251.

**5261 RPG 400 1** **4-6-6**
An introductory course for Business Computer Programming majors. Topics include: processing of sequential files and generating typical business reports.
Prerequisites: Grade of C or higher in IT 5206.

**5262 RPG 400 2** **3-6-5**
A continuation of IT 5261. Topics include: indexed files, advanced table handling, printer files, interprogram communication, Integrated Language Environment (ILE), and Application Programming Interfaces (API).
Prerequisites: IT 5261.

**5271 Java Programming 1** **2-3-3**
An introduction to Java language programming concepts, including language instructions and applications.
Prerequisites: IT 5331 or IT 5455.

**5272 Java Programming 2** **2-3-3**
A continuation of IT 5271. Topics include external classes, arrays, decisions, iteration, sorting, and file handling, and hands-on experience with Java's Abstract Window Toolkit.
Prerequisites: IT 5271

**5281 Visual C++ 1** **3-3-4**
An introduction to computer programming using the Visual C++ programming language. Topics include: use of mathematical operations and variables, sorting algorithms, and implementation of numerical methods for solving mathematical problems.
Prerequisites: OT 1850 or EET 7035 and IT 5206 or equivalent.

**5282 Visual C++ 2** **3-3-4**
A continuation of IT 5281. Topics include: graphic functions, structured variables, pointers, bitwise operations, preprocessor commands, disk I/O operations and command line operations, using advanced programming techniques to produce database managers and graphical analysis and display programs.
Prerequisites: IT 5281.

**5291 Visual BASIC 1** **2-3-3**
An introduction to object oriented programming using Visual BASIC in the Microsoft Windows environment. Topics include: developing the graphical interface, setting properties, and writing code to create applications. Keyboarding ability necessary.
Prerequisites: IT 5206.

**5292 Visual BASIC 2** **2-3-3**
A continuation of IT 5291. Topics include: establishing and following coding standards, creating multiple document interfaces, dynamic data exchange, object linking and embedding, advanced optimization techniques, Windows Application Programming Interface and Dynamic Link Libraries, advanced database manipulation using dynasts and snapshots, error handling and debugging techniques, and building a Windows help file.
Prerequisites: IT 5291.

**5293 Visual BASIC 3** **2-3-3**
A continuation of IT 5292. Topics include: establishing and following coding standards, dynamic data exchange, object linking and embedding, data access using the data control, data access using object variables, creating graphical effects, using colors, controlling screen resolution, and other methods and properties. Students build Windows help files and integrate these files with applications.
Prerequisites: IT 5292.

**5294 Visual BASIC 4** **2-3-3**
A continuation of IT 5293. Topics include: writing programs that accept content from the Internet, or provide content to Internet applications from files, including spreadsheets and databases, located on an Internet server.
Prerequisites: IT 5293.



**5310 Programming Database Applications** **2-3-3**
An introduction to database programming using COBOL. Topics include: the concepts of database management systems, both hierarchical and relational.
Prerequisites: IT 5252.

**5311 Database Management Systems** **2-3-3**
A course on using external database managers to manipulate data and extract information. Topics include: designing, creating, and accessing the database. Methods of access include: interactive manipulation, user-written procedures, and access through other languages.
Prerequisites: IT 5206.

**5312 Data Warehousing: AS/400** **2-3-3**
An introduction to various data warehousing/data mining concepts and algorithms using a database perspective. Topics include: cover data collection, structure, and design.
Prerequisites: IT 5311.

**5321 Database Programming & Administration1: SQL Server** **2-3-3**
A course on fundamentals of relational database design and implementation using Microsoft SQL Server. Students use the SQL Enterprise Manager and examine objects and their properties. Topics include: SQL groups, databases, table structure, data field types, and query statements.
Prerequisites: None.

**5322 Database Programming & Administration 2: SQL Server** **2-3-3**
A continuation of IT 5321. Students use the SQL Enterprise Manager to program and administer database objects and their properties. Topics include: stored procedures, advanced database normalization, and advanced query statements to join across tables.
Prerequisites: IT 5321.

**5323 Database Programming & Administration 3: Oracle** **2-3-3**
A course on fundamentals of relational database design and implementation using Oracle. Students use the Oracle SQL query language to program and administer database objects and their properties. Topics include: SQL groups, databases, table structure, data field types, and query statements.
Prerequisites: IT 5322.

**5324 Database Programming & Administration 4: Oracle** **2-3-3**
A continuation of IT 5323. Students use the Oracle SQL query language to program and administer database objects and their properties. Topics include: stored procedures, advanced database normalization, and advanced query statements to join across tables.
Prerequisites: IT 5323.

Class-Lab-Credit

**5331 Internet Programming : VBScript 2-3-3**
A course on programming user interactive Active Server Pages as components of a complete web application. Students integrate Visual Basic Script and HTML to produce complex web projects. VBScript topics include: key words, constants, errors, events, functions, methods, objects, operators, properties, and statements.
Prerequisites: IT 5206, IT 5453.

**5332 Internet Programming: JavaScript 2-3-3**
A course on fundamentals of the JavaScript scripting language. Student work with introductory topics in JavaScript and progress through more advanced topics such as frames and forms. Students must have a thorough knowledge of HTML before entering this course.
Prerequisites: IT 5453.

**5333 Internet Programming: XML 2-3-3**
A course on programming user interactive Active Server Pages as components of a complete web application. Students use XML and HTML to produce complex web projects. XML topics include: creating and displaying an XML document, defining and using entities, and displaying XML documents using cascading style sheets, data binding, and XSL style sheets.
Prerequisites: IT 5206, IT 5453.

**5340 PCSA Design Project 2-3-3**
A capstone design project in which students work in teams to resolve a variety of complex assignments.
Prerequisites: EET 7781, IT 5208, IT 5212.

**5351 CIS Design Project 1 2-3-3**
A capstone design project in which students design a working system using the team concept of project design. The five phases of project development are discussed and the planning, analysis, and design phases are used to complete various team assignments.
Prerequisites: IT 5233, IT 5240.

**5352 CIS Design Project 2 2-3-3**
A continuation of IT 5351. Students work in teams to resolve a variety of complex assignments.
Prerequisites: IT 5351.

**5353 CIS Design Project 3 2-3-3**
A continuation of IT 5352. Students work in teams to resolve a variety of complex assignments.
Prerequisites: IT 5352.

**5361 DBMS Design Project 1 2-3-3**
Students write a complete eBusiness software suite of programs. The integrated package includes a desktop VB application and an interactive ASP Internet application utilizing a common SQL Server database.
Prerequisites: IT 5293, IT 5322, IT 5331.

**5362 DBMS Design Project 2 2-3-3**
A continuation of IT 5361. Students introduce SQL Stored Procedures into the desktop and Web applications to increase application speed and efficiency.
Prerequisites: IT 5361.

Class-Lab-Credit

**5363 DBMS Design Project 3 2-3-3**
A continuation of IT 5362, emphasizing reliability, speed, accuracy, and ease of use. Students develop a complete set of Help Files for the desktop and Web applications.
Prerequisites: IT 5362.

**5371 DBA Design Project 1 2-3-3**
Students administer a complete eBusiness suite of programs. The integrated package includes a desktop VB application and an interactive ASP Internet application utilizing a common SQL Server database. Students focus their efforts on database administration and work in conjunction with the DBMS programmers.
Prerequisites: IT 5291, IT 5322, IT 5331.

**5372 DBA Design Project 2 2-3-3**
A continuation of IT 5371. Students introduce SQL Stored Procedures into the desktop and Web applications to increase application speed and efficiency. Students focus their efforts on database administration and work in conjunction with DBMS programmers.
Prerequisites: IT 5371.

**5373 DBA Design Project 3 2-3-3**
A continuation of IT 5372. Students focus their efforts on database administration and work in conjunction with the DBMS programmers.
Prerequisites: IT 5372.

**5410 Cross-Platform Computer Systems and Applications 2-2-3**
An introduction to operating systems software and end-user applications software in both Windows and Macintosh computing environments. Topics include: file management, file compressing, printer installation, and other basic processes and procedures for each computing environment.
Prerequisites: OT 1850 or IT 5102 or equivalent experience.
Corequisites: IT 5201.

**5420 Digital Media Concepts 2-3-3**
An introduction to software, hardware, and peripheral equipment used to create, revise, and produce digital images and audio and video input for multimedia products. Equipment used includes: scanners, printers, digital cameras, and audio and video recording equipment. Students should complete IT 5410 prior to enrolling in this course, or should enroll in both courses during the same term.
Prerequisites: IT 5201 or equivalent.
Corequisites: IT 5410.

**5431 Authoring Tools: Dreamweaver 2-3-3**
An introduction to techniques for creating, revising, and producing Web-based multimedia products using Macromedia Dreamweaver.
Prerequisites: IT 5454 or instructor consent.

**5432 Authoring Tools: Director 2-3-3**
An introduction to techniques for creating, revising, and producing multimedia presentations using Macromedia Director. Topics include: principles for effective design, development, and use of Director-generated multimedia materials.
Prerequisites: IT 5453, IT 5441.

Class-Lab-Credit

**5433 Authoring Tools: Authorware** **2-3-3**
An introduction to techniques for creating, revising, and producing multimedia presentations using Macromedia Authorware. Topics include: principles for effective use of Authorware-generated materials in multimedia products.
Prerequisites: IT 5453.

**5441 Graphics Tools: Photoshop 1** **2-3-3**
Introduction to techniques for creating, revising, and producing images using Adobe Photoshop. Topics include: principles for effective use of Photoshop-generated images in print and multimedia products. Students should complete IT 5420 prior to enrolling in this course, or should enroll in both courses during the same term.
Prerequisites: IT 5410.
Corequisites: IT 5420.

**5442 Graphics Tools: Flash** **2-3-3**
An introduction to techniques for creating, revising, and producing dynamic multimedia content using Macromedia Flash. Topics include: principles for project planning, creating and importing vector graphics, creating navigational elements, and other techniques for effective creation and use of Flash-generated elements in multimedia products.
Prerequisites: IT 5453, IT 5441.

**5443 Graphics Tools: Illustrator** **2-3-3**
Introduction to techniques for creating, revising, and producing images using Adobe Illustrator. Topics include: principles for effective use of Illustrator-generated images in print and multimedia products. Students should complete IT 5420 prior to enrolling in this course or should enroll in both courses during the same term.
Prerequisites: IT 5410.
Corequisites: IT 5420.

**5444 Graphics Tools: Photoshop 2** **2-3-3**
A continuation of IT 5441. Topics include: advanced techniques for creating, revising, and producing images using Adobe Photoshop.
Prerequisites: IT 5441

**5445 Graphics Tools: Freehand** **2-3-3**
Introduction to techniques for creating, revising, and producing images using Macromedia Freehand. Topics include: principles for effective use of Freehand-generated images in print and multimedia products. Students should complete IT 5420 prior to enrolling in this course or should enroll in both courses during the same term.
Prerequisites: IT 5410.
Corequisites: IT 5420.

**5451 Animation Tools: Maya 1** **3-4-5**
An introduction to techniques for creating, manipulating, and animating in AliasIWavefront Maya. Topics include: basic skills for modeling, texturing, lighting, and animating.
Prerequisites: IT 5224, IT 5420, IT 5441, and IT 5443 or IT 5445.

**5452 Animation Tools: Maya 2** **3-3-4**
A continuation of IT 5451. Topics include: dynamics and particles, character animation, and creation of believable characters.
Prerequisites: IT 5451.

Class-Lab-Credit

**5453 Web Development 1: HTML** **2-3-3**
An introduction to fundamental concepts and techniques required to design and develop effective websites. Topics include: basic priciples of site design and navigation; and markup language code for text, images, links, tables, frames, and other commonly used basic tags. Students enrolled in this course must be familiar with the Internet and commonly-used computer applications software. Students in Multimedia Information Design programs should complete IT 5410 prior to enrolling in this course, or should enroll in both courses during the same term. A grade of C or higher in this course is required to be eligible for continuation courses.
Prerequisites: IT 5201 or equivalent.
Corequisites: IT 5410 or instructor consent.

**5454 Web Development 2: JavaScript** **2-3-3**
A continuation of IT 5453. Topics include: additional principles of site design, navigation, and functionality; and use of a scripting language to increase site functionality. Students must earn a grade of C or higher in this course to be eligible for continuation courses.
Prerequisites: IT 5453, IT 5206, TC 5010, TC 5020.

**5455 Web Development 3: Advanced Topics** **2-3-3**
A continuation of IT 5454. Topics include: advanced principles of site design, navigation, and functionality; intermediate use of a scripting language; and dynamic elements of web design incorporating Dynamic HTML and Cascading Style Sheets. Students must earn a grade of C or higher in this course to be eligible for continuation courses.
Prerequisites: IT 5454.

**5456 Desktop Publishing: QuarkXPress** **2-3-3**
Introduction to desktop publishing techniques for creating, revising, and producing print and multimedia materials using QuarkXPress. Topics include: selecting appropriate page layouts, formatting text, positioning graphics, and applying appropriate typographic and design enhancements. Students should complete IT 5420 prior to enrolling in this course or should enroll in both courses during the same term.
Prerequisites: IT 5410 or equivalent.
Corequisites: IT 5420.

**5457 Web Design Project** **3-2-4**
Students complete a project to develop a Web-based multimedia product for information, education, business, or entertainment. Activities include: audience, client, and market analysis; design of product architecture and navigation schema; planning, selection and organization of materials; development and production of content; and usability testing. Students present project results.
Prerequisites: IT 5455.

**5458 Web Development 4: Scripting Languages** **2-3-3**
A continuation of IT 5455, emphasizing scripting languages such as CGI and Perl. Topics include: creating scripts to communicate between client-side and server-side web pages for database interaction.
Prerequisites: IT 5455.

**5571 Computer Graphics Design Project** **3-3-4**
Students complete a project to develop a computer graphics product for information, education, business, or entertainment. Activities include: audience, client, and market analysis; product design and planning, selection and organization of materials; development and production of content; and usability testing. Students present project results.
Prerequisites: Successful completion of Computer Graphics Technology core courses.

**5598 Workshop in Multimedia Information Design** **Var-Var-Var**
Group discussion and practice of selected topics related to multimedia information design. Course content and emphasis may vary from year to year.
Prerequisites: Instructor consent.

**5599 Special Problems in Multimedia Information Design** **Var-Var-Var**
A course in which students who are seeking advanced standing or implementing independent research or specialized multimedia information design projects complete individual studies and special projects related to multimedia information design. Enrollment requires prior approval of MID Program Chair and Dean of Information Technologies. May be repeated for credit.
Prerequisites: Program chair consent.

**9500 Cooperative Education - Information Technologies (Alternating)** **1-40-2**
The student participates in a full-time (minimum of 36 hours per week) paid field learning experience related to the student's academic discipline and career goals. Students must adhere to the Information Technology Division's cooperative education policies and procedures.
Prerequisites: Full-time status; admitted to an IT degree program; 2.0 minimum GPA.

**9501 Cooperative Education - Infomation Technologies (Parallel)** **1-20-1**
The student participates in a paid field learning experience directly related to the student's academic discipline for 15 to 30 hours per week, while registered for a minimum of 8 credit hours of program course requirements during that same term. The student must adhere to the division's cooperative education policies and procedures.
Prerequisites: Admitted to an IT degree program; 2.0 minimum GPA.

# ITE Industrial Training

**8500 Problems- Mechanical Apprentice** **Var-Var-Var**
Individual study and special projects pertaining to mechanical areas of specialization. Open to students with valid documented course academics, work experience, professional certification and/or licensing, or completed formal training programs.
Prerequisites: Completed formalized training program/apprenticeship.



**8700 Problems-Electrical Apprentice** **Var-Var-Var**
Individual study and special projects pertaining to electrical/electronic areas of specialty. Open to students with documented valid academics or work experience, professional certification and/or licensing, or completed formal training programs.
Prerequisites: Completed formalized training program apprenticeship/licensing.

**8900 Problems - Plumber/Pipefitter** **Var-Var-Var**
Individual study and special projects pertaining to plumber/pipefitting areas of specialization. Open to students with valid documented course academics, work experience, professional certification and/or licensing or completed formal training programs.
Prerequisites: Completed formalized training program/apprenticeship.

# ITHT Industry Training Health Technologies

**3811 General X-ray Machine Operation** **2-0-2**
Prepares students for Ohio licensure as a General X-ray Machine Operators. The curriculum includes: instruction on radiation physics, radiographic techniques, darkroom processing and film handling, radiation health safety and protection, and radiation biology.
Prerequisites: None.

**3813 Nurse Aide Train the Trainer Program** **3-0-3**
This state approved course meets the requirements for nurses teaching either the classroom or clinical supervised parts of an approved Training and Competency Evaluation program for long term care aides.
Prerequisites: RN or LPN with an active Ohio License and 2 years experience caring for the elderly.

# ITM International Trade Management

**2980 Introduction to International Business** **3-0-3**
Topics include: an overview of international business and the institutions that affect business today, the scope and challenges of international trade, concepts and theories, market entry strategies, cultural dynamics, business customs and practices, political environments, legal systems, and international market techniques.
Prerequisites: None.

**2981 International Marketing** **3-0-3**
Topics include: components of international marketing, determination of export potential, international market research, internationalization of products, pricing methods, market entry strategies, promotional techniques, and long-term marketing planning.
Prerequisites: None.

**2982 International Banking & Finance** **3-0-3**
Topics include: financial procedures and responsibilities of international bankers, buyers, and sellers; examining financing and collection alternatives; providing an understanding of the rules and regulations governing international collections; and methods of checking the credit of potential customers.
Prerequisites: None.

Class-Lab-Credit

**2983 International Orders Processing & Shipping 3-0-3**
Topics include: skills required by international order processing and shipping departments such as using inquiries, quotations, foreign purchase orders, bills of lading, and country required documents; selecting forwarders, carriers, and insurance; the communication procedures necessary to accomplish intercompany coordination; responsibilities of all parties to the contract of carriage for shipments; and reading and understanding trade, tariff, and exchange regulations and restrictions.
Prerequisites: None.

**9252 Cooperative Education International Trade Management 1-40-2**
Students seeking an Associate degree participate in a paid field learning experience related to their degree program. Students must adhere to cooperative education policies and procedures to earn credit. Course may be repeated.
Prerequisites: Admitted to program, 2.0 minimum GPA.

**9253 Cooperative Education International Trade Management-Parallel 1-20-1**
Students seeking an Associate degree participate in a paid field learning experience related to their degree program for a minimum of 20 hours per week. Students must also register for academic course requirements during the same term. Students must adhere to cooperative education policies and procedures to earn credit. Course may be repeated.
Prerequisites: Admitted to program, 2.0 minimum GPA.

# ITP Interpreter Training

**1086 Beginning ASL 1 3-2-4**
An introduction to American Sign Language. Topics include: ASL vocabulary; Deaf culture; grammar; and beginning conversational, comprehensive and expressive skills.
Prerequisites: None.

**1087 Beginning ASL 2 3-2-4**
A continuation of ITP 1086. Topics include: ASL vocabulary; Deaf culture; grammar; and beginning conversational, comprehensive, and expressive skills.
Prerequisites: ITP 1086 or equivalent.

**1088 Beginning ASL 3 3-2-4**
A continuation of ITP 1087. Topics include: ASL vocabulary; Deaf culture; grammar; and beginning conversational, comprehensive, and expressive skills.
Prerequisites: ITP 1087 or equivalent.

**1089 Advanced Fingerspelling 3-0-3**
Topics include: developing and practicing strategies that improve understanding of fingerspelling embedded in signed utterances and improving receptive and expressive skills.
Prerequisites: ITP 1091 or equivalent.

**1091 Intermediate American Sign Language 1 3-2-4**
Topics include: receptive and expressive readiness skills for acquiring ASL targeted vocabulary and grammar, and fingerspelling.
Prerequisites: ITP 1088 or advisor consent.

Class-Lab-Credit

**1092 Intermediate American Sign Language 2 3-2-4**
Topics include: written information on targeted grammatical features, receptive and expressive mastery of these features and targeted vocabulary items, and production of student-generated ASL sentences.
Prerequisites: ITP 1091 or equivalent.

**1093 Intermediate American Sign Language 3 3-2-4**
Topics include: additional information on targeted grammatical features, receptive and expressive mastery of prepared dialogues, interpreting of English sentences into ASL, and production of short student-generated ASL narratives.
Prerequisites: ITP 1092 or equivalent.

**1094 Advanced American Sign Language 1 3-2-4**
Topics include: demonstration of target vocabulary and grammatical features through prepared dialogues and short narratives, interpreting English paragraphs into ASL, and production of student-generated ASL dialogues.
Prerequisites: ITP 1093 and program chair consent.

**1095 Advanced American Sign Language 2 3-2-4**
Topics include: additional practice of ASL communicative skills, vocabulary and grammatical features; and continued development of expressive and receptive interpreting skills.
Prerequisites: ITP 1094 or equivalent.

**1096 Advanced American Sign Language 3 3-2-4**
Topics include: additional ASL vocabulary and grammatical features; and mastery of simultaneous interpreting through use of short stories and student-generated dialogues.
Prerequisites: ITP 1095 or equivalent.

**5459 Beginning Fingerspelling 3-0-3**
A course on enhancing expressive and receptive skills related to fingerspelling. Topics include: Lexical Borrowing and numbers.
Prerequisites: None.

**5460 Interpreting for the Deaf 3-0-3**
Topics include: a framework for understanding the field of interpreting, the code of ethics, and physical factors.
Prerequisites: None.

**5461 Preparation for ITP Practicum 3-0-3**
Topics include: the role of the interpreter in various settings, the interpreting process, physical factors, and modeling and practice of language variations.
Prerequisites: ITP 1093 with a grade of C or higher.

**5462 Community Resources for Deaf 3-0-3**
Topics include: human service agencies that serve the deaf population and an overview of the laws and legal implications of interpreting situations.
Prerequisites: None.

**5463 Role of Interpreter 3-0-3**
Topics include: history, trends, and issues in the field of interpreting. Includes information students need for the written portion of RID National Certification Test.
Prerequisites: ITP 5460 or equivalent and ITP 5461.

**5464 Sign-to-Voice Interpreting 1** **3-2-4**
Topics include: improving receptive skills in preparation for sign to voice interpreting and transliterating situations.
Prerequisites: ITP 1093 with a grade of C or higher.

**5465 Sign-to-Voice Interpreting 2** **3-2-4**
Topics include: receptive skills and skill development in transforming sign expressions into vocal expressions.
Prerequisites: ITP 5464 with a grade of C or higher.

**5466 Sign-to-Voice Interpreting 3** **3-2-4**
Topics include: techniques to help the interpreter develop the skills and poise needed to handle frustrations and problems that arise in sign to voice interpreting and transliterating situations.
Prerequisites: ITP 5465 or equivalent.

**5467 Sign-to-Voice Interpreting 4** **3-2-4**
Topics include: advanced techniques to assist interpreter in developing appropriate skills in sign to voice interpreting and transliterating situations.
Prerequisites: ITP 5466 or equivalent.

**5468 Deaf-Blind Communications** **3-0-3**
Topics include: various communication needs for deaf-blind individuals, communication modes/languages, and application and feedback.
Prerequisites: ITP 1091 with a grade of C or higher.

**5470 Transliterating 1** **4-0-4**
Topics include: the process of transmitting spoken English into one of several English-related or English-oriented varieties of manual communication for communication between deaf and hearing people.
Prerequisites: ITP 1093 with a grade of C or higher.

**5471 Medical/Technical/Legal Interpreting** **4-0-4**
Topics include: technical sign vocabulary used in business, engineering, mathematics, and biology; protocol and sign vocabulary for medical, mental health, social work, and legal interpreting settings.
Prerequisites: ITP 1093.

**5472 Specialized Interpreting** **4-0-4**
An introduction to ASL vocabulary related to sexual behavior/sexual abuse and drug use/abuse. Topics include: increasing student comfort and skill level for interpreting in the areas of OB/GYN, Alcoholics Anonymous, Narcotics Anonymous, counseling and court settings.
Prerequisites: ITP 1093.

**5474 Vocabulary Building for Interpreters** **3-0-3**
Topics include: developing receptive and expressive skills in sign language vocabulary. Emphasizes American Sign Language.
Prerequisites: ITP 1091 with a grade of C or higher.

**5475 Educational Interpreting 1** **3-0-3**
An overview of educational interpreting. Topics include: the educational setting, code of ethics, inservicing, the IEP process, and the Ohio Department of Education's Educational Interpreter Guidelines.
Prerequisites: ITP 1091 with a grade of C or higher.

Class-Lab-Credit

**5476 Educational Interpreting 2** **3-0-3**
Hands-on practice and feedback pertaining to expressive and receptive skills in educational settings. Classroom vocabulary focuses on several educational subjects. Topics include: the specific needs of learners at each age and how interpreters can best meet those communication needs.
Prerequisites: ITP 5475 with a grade of C or higher.

**5477 Transliterating 2** **4-0-4**
A continuation of ITP 5470. Topics include: extensive hands-on practice and feedback related to expressive and receptive skills in transliterating and several different modes of English-related or English-oriented sign systems.
Prerequisites: ITP 5470 with a grade of C or higher.

**5478 Religious Interpreting** **3-0-3**
A course emphasizing skills needed for interpreting/transliterating in religious settings. Topics include: vocabulary building and conceptual accuracy.
Prerequisites: ITP 1091 with a grade of C or higher.

**5479 Theatrical Interpreting** **3-0-3**
A course on the art of interpreting for theater and related settings. Topics include: developing skills in the processes of script translation, preparation, and performance.
Prerequisites: ITP 1091 with a grade of C or higher.

**5480 ITP Practicum 1** **2-10-3**
Students are assigned to various educational institutions and community agencies. Students spend a total of 10 hours per week observing, and subsequently assuming, the role of the interpreter under supervision. Students participate in weekly seminars.
Prerequisites: ITP 5461 or equivalent.

**5481 ITP Practicum 2** **2-10-3**
Students are assigned to a community or human service agency for the deaf for 10 hours per week to gain practice interpreting. Students participate in weekly seminars.
Prerequisites: ITP 5480 or equivalent.

**5482 ITP Practicum 3** **2-10-3**
Students assume interpreting responsibilities under the mentorship of an interpreter(s)in an assigned agency or institution. Students prepare a portfolio for an exiting interview.
Prerequisites: ITP 5481 or equivalent.

**5498 Topics in Interpreter Training** **Var-Var-Var**
Study of selected topics in interpreter training. Content and emphasis may vary from term to term.
Prerequisites: ITP 1091.

**5499 Special Studies in Interpreter Training** **Var-Var-Var**
Individual study and special projects pertaining to interpreter training. Open to students wishing to conduct independent study and/or research under the supervision of a faculty member. Before registration, the student must have the plan of study approved by the Program Chair and the Dean of Humanities and Sciences.
Prerequisites: ITP 1091.

# JOU Journalism

**1031 News Writing 1** **2-2-3**
An introduction to basic principles of journalism, emphasizing techniques for reporting and writing news stories. Laboratory activities involve preparation of materials for the College newspaper or other publications.
Prerequisites: 6 hours of English composition.

**1032 News Writing 2** **2-2-3**
A continuation of JOU 1031. Topics include: techniques for reporting and writing complex news stories and feature stories; and design, editing, and production of materials for varied forms of print journalism. Laboratory activities involve preparation of materials for the College newspaper or other publications.
Prerequisites: JOU 1031.

**1033 Journalism Practicum** **0-7-1**
Practical journalism laboratory experience. Topics include: writing, editing, and production of the College newspaper or other publications. May be repeated for credit.
Prerequisites: JOU 1032 or instructor consent.

# LAW Law

**1823 Business Law 1** **3-0-3**
Topics include: fundamental principles of business law such as contracts, negotiable instruments, and agencies.
Prerequisites: None.

**1824 Business Law 2** **3-0-3**
A continuation of LAW 1823. Topics include: government regulations, trust, and insurance.
Prerequisites: LAW 1823.

**1825 Hotel Law** **3-0-3**
Topics include: the fundamental principles of hotel law concerned with the various public callings and the essential laws for making responsible decisions in the complex and diverse operations of modern hotels, motels, and restaurants.
Prerequisites: None.

**1827 International Law** **3-0-3**
A course that compares and contrasts three basic systems of international law. Topics include: the influence of a nation's culture on its legal system, laws involving the rights and duties of states, intergovernmental organizations that affect legal relations between nations, and legal issues that affect foreign travel and international business transactions.
Prerequisites: None.

**1875 E-Commerce Law and Regulation** **3-0-3**
Topics include: the legal and social environment of e-commerce; uniform commercial code; enforceability of electronic agreements; evidentiary problems; privacy; consumer rights; and intellectual property as it relates to e-commerce, criminal statutes, and trans-border issues.
Prerequisites: None.



# LBR Labor Relations

**1535 Introduction to Labor/Management Relations** **3-0-3**
A general overview of the historical, legal, and current status of labor/management relations, in union and non-union environments, in both the public and private sectors. Topics include: labor economics, labor law, labor movements, and the concept of relative bargaining power.
Prerequisites: None.

**1538 Case Studies in Labor Relations** **3-0-3**
A case study approach to the American labor relations system and the application of labor law.
Prerequisites: LBR 1535 or equivalent.

**1539 Introduction to Employment and Workplace Law 1** **3-0-3**
Topics include: major legislation regarding employment rights and responsibilities from the viewpoints of management and labor; public policy regarding hiring; EEO; ADA; FMLA; FLSA; and developing legal trends.
Prerequisites: None.

**1540 Introduction to Employment and Workplace Law 2** **3-0-3**
Topics include: major legislation regarding employment rights and responsibilities from the viewpoints of labor and management, safety, worker's compensation, age discrimination, unemployment compensation, termination, and developing topics in law.
Prerequisites: LBR 1539 or instructor consent.

# LH Landscape Horticulture

**3500 Orientation to Horticulture Occupations** **1-0-1**
An introduction to the various horticulture occupations. Topics include: benefits, working conditions, abilities needed, and job levels within the horticulture industries.
Prerequisites: None.

**3501 Soils and Plant Nutrition** **2-2-3**
Topics include: the formation and physical, chemical, and biological properties of soils that affect plant growth.
Prerequisites: CHE 2200.

**3502 Horticulture Science** **2-2-3**
Topics include: plant classification, structures, physiology, development, and the environmental conditions that affect plant growth.
Prerequisites: None.

**3504 Woody Plant Materials 1** **2-3-3**
The study of woody plants primarily grown by nurseries and found in the landscape or secondarily found in naturalized settings of Ohio. Topics include: deciduous and evergreen trees, shrubs, and vines with emphasis on identifying features, culture, and landscape use. Weekly plant walk field trips are required.
Prerequisites: None.

Class-Lab-Credit

**3505 Introduction to Herbaceous Plant Materials 2-2-3**
Topics include: an introduction to the classification, identification, and general cultural requirements of annuals, perennials, bulbs, and roses commonly used in garden plantings, and researching theme gardens and basic bed design. Field trip required.
Prerequisites: None.

**3506 Nursery Management 1 2-2-3**
Topics include: an introduction to the techniques and practices used in the commercial production of field or containerized landscape plants, nursery business management, organization, culture, irrigation, and pruning. Field trips required.
Prerequisites: None.

**3507 Arboriculture 2-3-3**
A course on the commercial arboriculture business. Topics include: the diagnosis and treatment of tree ills; principles and techniques used to protect trees from disease and damage; pruning; removal; and climbing safety. Field activities required.
Prerequisites: None.

**3508 Turfgrass Management 2-2-3**
Topics include: principles and practices of identification; and growth, uses, establishment, and pest control of turfgrass areas. Field trips required.
Prerequisites: None.

**3509 Landscape Design 1 2-3-3**
A course in landscape development for residential sites. Topics include: the design process, graphics, and lettering. Students must provide drawing tools. Field trips required.
Prerequisites: None.

**3510 Small Engine Maintenance & Repair 2-2-3**
A study of the operation and maintenance of small gasoline engines with emphasis on safety and troubleshooting.
Prerequisites: None.

**3511 Introduction to Landscape Construction 2-3-3**
Topics include: the techniques of selecting and working with materials such as wood, stone, concrete, brick, and interlocking pavers used in the construction of landscape features; measuring, site layout, grading, drainage, and erosion control; and hand and power tool use. Field trips required.
Prerequisites: LH 3509.

**3513 Advanced Landscape Construction 2-3-3**
Topics include: advanced techniques of landscape construction including construction of decks, patios, walkways, retaining walls, steps, and water features. Field trips required.
Prerequisites: LH 3511.

**3515 Woody Plant Materials 2 2-3-3**
Topics include: woody plants primarily grown by nurseries and used in the landscape; novel plants found in arboreta; plants in naturalized settings in Ohio; and deciduous and evergreen trees, shrubs, and vines with emphasis on identifying features, culture, and landscape use. Weekly plant walk field trips required.
Prerequisites: None.

Class-Lab-Credit

**3516 Herbaceous Plants 2 2-2-3**
Topics include: the design, long-term establishment, selection, maintenance, and propagation of herbaceous plants. Prior gardening experience or the successful completion of LH 3505 is recommended before taking this course. Field trips required.
Prerequisites: LH 3509.

**3517 Computer Aided Landscaping Drafting 2-3-3**
An introductory course on the use of computers in landscape design. Topics include: the techniques of generating plot plans, planting plans, and presentation drawings used in landscape contracting.
Prerequisites: LH 3509.

**3518 Landscape Design 2 2-3-3**
A continuation of the principles of landscape design, with progressively more difficult problems. Topics include: basic details of landscape architectural construction grading, construction, drainage, and irrigation factors.
Prerequisites: LH 3509.

**3519 Landscape Contracts and Specifications 3-0-3**
A study of planting design and plan presentation. Topics include: cost estimates, procedures, specifications, and types of contracts. Students examine typical plantings in the field.
Prerequisites: LH 3511.

**3520 Horticulture Lab 0-3-1**
Supervised practical experience carried out in a structured environment. Topics include: installation and maintenance of landscape plantings and operation of equipment and vehicles common to the industry. Field trips required.
Prerequisites: None.

**3523 Horticulture Entomology 2-2-3**
Topics include: principles and practices in diagnosing and controlling insect pests on various horticultural crops and integrated pest management principles. Field trips required.
Prerequisites: None.

**3524 Plant Pathology 2-2-3**
Topics include: principles and practices in diagnosing, preventing, and controlling plant diseases on various horticulture crops. Field trips required.
Prerequisites: None.

**3526 Introduction to Golf and Turf Management 1-1-1**
Topics include: facility requirements; rules of major sports; organization, staffing, resource management, and the special needs and concerns of golf courses, athletic facilities, and lawn care operators. Field trips required.
Prerequisites: None.

**3528 Greenhouse and Garden Center Management 2-3-3**
Topics include: principles and practices in controlling the greenhouse environment for plant growth and sales, growing, marketing, retailing, purchasing, inventory, and customer service.
Prerequisites: None.

**3529 Landscape Grading, Drainage and Surveying 2-3-3**
An introductory course in site preparation. Topics include: site assessment, establishing grades, soil conservation and improvement, surface and sub-surface drain systems, cut and fill calculations, legal issues, and equipment operation and safety. Field trips required.
Prerequisites: MAT 1161.

**3530 Horticulture Seminar 1-0-1**
Guest speakers and field trips dealing with current industry topics. Goal setting and career planning are also emphasized.
Prerequisites: None.

**3532 Landscape Management 2-3-3**
Topics include: principles and practices involved in the maintenance of ornamental plants including planting, fertilizing, pruning, pest control, and other related maintenance practices. Field projects required.
Prerequisites: None.

**3533 Landscape Irrigation 2-2-3**
Topics include: the design, construction, installation, and use of landscape irrigation systems.
Prerequisites: None.

**3534 Interior Plantscaping 2-2-3**
Topics include: identification, culture, and maintenance of tropical plants used in residential and commercial interior plantings. Field trips required.
Prerequisites: None.

**3535 Woody Plant Materials 3 2-3-3**
Topics include: plants commercially available and widely used in the landscape and nursery industry, cultivar distinctions, and landscape use. Field trips required.
Prerequisites: LH 3504, LH 3515.

**3536 Turfgrass Culture 2-2-3**
An in-depth look at the turf environment from establishment through renovation. Topics include: soil modification, selection of turf species and cultures, thatch management, and fertilization practices. Field trips required.
Prerequisites: LH 3508.

**3537 Turfgrass Pests 2-2-3**
Topics include: insects, diseases, weeds, and other pests that affect turf grasses and diagnosis and management of these problems. Field trips required.
Prerequisites: LH 3508.

**3538 Turfgrass Practices 2-2-3**
Topics include: the special concerns of athletic turf, golf courses, and the commercial lawn care industry. A research project and field trips are required.
Prerequisites: LH 3508.

**3539 Landscape Design 3 2-3-3**
Topics include: the application of design theory; landform design; the use of water in garden design; advanced graphic skills including section, elevation, isometric, and perspective techniques; and computers applications in design. Course projects concentrate on client contact and sales presentation skills.
Prerequisites: LH 3518.



**3540 Introduction to Floral Design 2-2-3**
A basic course dealing with principles of making simple flower arrangements and corsages. Topics include: types of design, style, principal tools, equipment, materials, foliage, and flower types.
Prerequisites: None.

**3544 Advanced Floral Design 2-2-3**
An advanced course in floral design. Topics include: complex designs such as wedding, hospital, church, and funeral work.
Prerequisites: LH 3540.

**3546 Computer Aided Landscape Drafting 2 2-3-3**
An advanced course on computer use in landscape design. Topics include: advanced skills in plot plans, planting plans, and presentation drawings.
Prerequisites: LH 3517.

**3547 Photo Imaging for Landscape Design 2-3-3**
An introductory course on computer use in developing photo/realistic images of proposed landscape designs. Topics include: techniques such as scanning, scaling, color selection, and image editing.
Prerequisites: LH 3517.

**3548 Cemetery Operations & Facilities Management 2-2-3**
An overview of the issues concerning the management of cemetery operations. Topics include: sales and marketing, customer relations, investments for perpetuity, planning and development, record keeping, internment processing, building and facilities management. Self-study research, projects and field trips are required.
Prerequisites: Able to converse and write in the English language.

**3599 Studies in Cemetery Management Var-Var-Var**
Courses taken at The College of Mortuary Science pertaining to the Cemetery Management program. Advisor approval required.
Prerequisites: None.

**9225 Cooperative Education**
**Landscape Hort./Turf Mgt. 1-40-2**
Students seeking an Associate degree participate in a paid field learning experience related to their degree program. Students must adhere to cooperative education policies and procedures to earn credit. Course may be repeated.
Prerequisites: Admitted to program, 2.0 minimum GPA.

**9245 Cooperative Education**
**Landscape Horticulture - Parallel 1-20-1**
Students seeking an Associate degree participate in a paid field learning experience related to their degree program for a minimum of 20 hours per week. Students must also register for academic course requirements during the same term. Students must adhere to cooperative education policies and procedures to earn credit. Course may be repeated.
Prerequisites: Admitted to program, 2.0 minimum GPA.

Class-Lab-Credit

# LIT Literature

**1040 Survey of American Literature 1** 3-0-3
Chronological survey of American authors from the colonial period to the beginning of the Civil War. Topics include: the major historical and cultural issues of their times.
Prerequisites: 9 credits of English composition.

**1041 Survey of American Literature 2** 3-0-3
A course on American authors from the Civil War era to the period before World War I; emphasizes the developments and changes in American culture.
Prerequisites: 9 credits of English composition.

**1042 Survey of American Literature 3** 3-0-3
A course on notable American authors since World War I; includes discussion of the major cultural and social developments.
Prerequisites: 9 credits of English composition.

**1045 Survey of British Literature 1** 3-0-3
A chronological survey of major works of English literature from the Anglo-Saxon period to 1550.
Prerequisites: 9 credits of English composition.

**1046 Survey of British Literature 2** 3-0-3
A survey of major British authors from the Renaissance through the 18th century.
Prerequisites: 9 credits of English composition.

**1047 Survey of British Literature 3** 3-0-3
A survey of major British authors and literary movements in the 19th and 20th centuries.
Prerequisites: 9 credits of English composition.

**1048 Introduction to Shakespeare** 3-0-3
Students will read 3-5 of the best known plays by Shakespeare and view one or more video versions of those plays. Course emphasizes the issues facing modern interpreters of these classic plays. Regular written assignments and out of class screenings required.
Prerequisites: 9 credits of Composition or other writing classes.

**1050 The Short Story** 3-0-3
An introduction to short fiction, with examples drawn from a variety of periods, styles, and cultures. Emphasizes critical reading and involves regular written assignments.
Prerequisites: 9 credits of English composition.

**1051 Drama** 3-0-3
An introduction to drama as a literary form. Topics include: studying plays that represent a variety of periods and styles. Discussion is supplemented by out-of-class screenings of selected plays on video. The course involves regular written assignments.
Prerequisites: 9 credits of English composition.

**1052 Poetry** 3-0-3
An introduction to poetry as a literary form. The poems represent a variety of periods, styles, and cultures. The course involves regular written assignments.
Prerequisites: 9 credits of English composition.

Class-Lab-Credit

**1053 The Novel** 3-0-3
A course on major themes and issues in the novel with examples from a variety of periods and cultures. Content and emphasis vary from term to term. The course involves regular written assignments.
Prerequisites: 9 credits of English composition.

**1054 Children's Literature** 3-0-3
A course on themes and issues in multicultural children's literature, including poetry and prose forms. Emphasizes critical assessment of materials in relation to the interests and needs of varied age groups. The course involves regular written assignments.
Prerequisites: 9 credits of English composition or instructor consent.

**1055 Science Fiction** 3-0-3
A course on themes and issues in science fiction, emphasizing the stories' analysis of social and technological trends. The course involves regular written assignments.
Prerequisites: 9 credits of English composition.

**1056 Women Writers** 3-0-3
A course on major themes and forms in women's writing from a variety of periods and cultures, including American ethnic women. Content and emphasis vary from term to term. The course involves regular written assignments.
Prerequisites: 9 credits of English composition.

**1057 African-American Writers** 3-0-3
A course on major themes and forms in African-American writing from a variety of periods, including contemporary writers. May also include African or Afro-Caribbean writers. Content and emphasis vary from term to term. The course involves regular written assignments.
Prerequisites: 9 credits of English composition.

**1059 Topics in Literature** 3-0-3
Study and discussion of selected topics or genres in literature (detective fiction, images of women, etc). Content and emphasis vary from term to term.
Prerequisites: 9 credits of English Composition.

# LOT Laser Electro-Optics

**6700 Introductory Laser Principles** 3-0-3
Study of introductory laser concepts and principles. Required for Laser Electro-Optics Engineering Technology pre-tech students unless specifically waived by the Dean of Engineering Technologies.
Prerequisites: MAT 1161.

**6710 Introduction to Lasers** 3-3-4
Topics include: emission and absorption of photons, elements of the laser, properties of laser light, optical cavities, helium-neon lasers, laser classifications and characteristics, and an introduction to laser safety.
Prerequisites: None.
Corequisites: MAT 1172 or MAT 1191.

Class-Lab-Credit

**6715 Laser Safety** **2-2-3**
Topics include: parts of the eye most susceptible to damage from laser light; point sources and extended sources; specular, diffuse and Fresnel reflections; hazards of laser beam; laser classification; bioeffects; associated hazards; calculations of MPE, OD, and nominal hazard zone.
Prerequisites: LOT 6710.

**6720 Geometrical and Wave Optics** **3-3-4**
Topics include: reflection and refraction of light, mirrors, lenses and prisms; reflection, interference; diffraction; and polarization.
Prerequisites: MAT 1191, LOT 6710.

**6730 Optical Components and Devices** **3-3-4**
Topics include: optical components such as optical windows, flats, filters and beamsplitters; and laser-optic devices such as photodetectors, laser power and energy detectors, collimators, autocollimators, beam expanders, spatial filters, electro-optic Q-switches and laser modulators.
Prerequisites: LOT 6720.

**6735 Industrial Laser Systems** **3-3-4**
Topics include: various types of lasers such as Nd: YAG, CO2, Excimer, Argon, and Semiconductor; motion control systems; and beam delivery systems.
Prerequisites: LOT 6730.

**6736 Medical Laser Systems** **3-3-4**
Topics include: various types of medical lasers such as Nd: YAG, CO2, Excimer, dye, and argon used in medical applications; beam delivery systems; and filters, tips and other accessories.
Prerequisites: LOT 6730.

**6740 Applications of Lasers** **3-3-4**
Topics include: cutting, drilling, welding, engraving, surface modification, and holography.
Prerequisites: LOT 6730.

**6741 Introduction to Fiber Optics** **3-3-4**
Topics include: optics review-lenses, imaging, numerical aperture, diffraction, light wave fundamentals dispersion, pulse distortion, reflection at a plane boundary, critical-angle reflections, wave guides, modes in symmetric slab wave guide, step index fiber, graded index fiber, modes in step-index fiber, distortion in step-index fiber, couplers and connectors, lateral misalignment, angular misalignment, end separations, and splices.
Prerequisites: LOT 6710.

**6742 Medical Lasers Applications** **3-3-4**
Topics include: laser tissue interaction; various techniques and power levels used; and medical laser applications such as ophthalmology, gynecology, dermatology, and general surgery.
Prerequisites: LOT 6740.

**6745 Optical System Design** **3-3-4**
Topics include: co-axial system of two thin lenses, thick lenses, cardinal points, refraction matrix, translation matrix, lens matrix, system matrix of two thin lenses, system matrix of combination of lenses, Gaussian constants and their physical significance, and lens aberrations.
Prerequisites: LOT 6720.

Class-Lab-Credit

**6749 Laser Electro-Optic Project** **0-4-2**
Individual study and special projects pertaining to laser technology. The study may deal with an idea or concept not usually covered by existing courses at the College, or with a specific problem found in the industry in which the student is employed. Open to fourth and fifth-term students by special arrangement with the instructor and program chair. Students receive grades of S or U for this course.
Prerequisites: Fourth or fifth term status.

**6750 Laser Electro-Optic Measurements** **3-3-4**
Topics include: laser power and energy measurements, wavelength, dispersion and refractive index measurements, use of monochromators and spectrophotometers, use of Fabry-Perot Michaelson, and laser cavity.
Prerequisites: LOT 6740.

**6758 Laser Electronics** **2-3-3**
An introduction to theory, operation, and construction of various types of power supplies used to energize lasers. Topics include: safety considerations, different types of supplies needed for different types of lasers, and physical configuration of actual supplies.
Prerequisites: EET 7710 or EMT 7712, EET 7720 or EMT 7722.

**6768 Laser Maintenance** **2-3-3**
Topics include: the use of support and test equipment; schematic reading, cleaning, and alignment of optical systems; and the maintenance of optical, electronics, and cooling systems of the laser.
Prerequisites: LOT 6758.

**6799 Special Problems Seminar - Lasers** **Var-Var-Var**
Individual study and special projects pertaining to laser technology. The study may deal with an idea or concept not usually covered by existing courses at the College, or with a specific problem found in the industry in which the student is employed. Open to fourth and fifth-term students by special arrangement with the instructor and program chair. Students receive grades of S or U for this course.
Prerequisites: Fourth or fifth term status.

# MA Medical Assisting

**4200 Medical Office Practice 1** **2-3-3**
Topics include: medical law and ethics, communication skills, team working relationships, career and professional characteristics and behavior. Students work through laboratory practice modules simulating office practices and use an office automation system.
Prerequisites: MA 4214.

**4201 Medical Office Practice 2** **2-3-3**
Topics include: fundamentals of patient reception, appointment making, mail handling, telephone techniques, inventory procedures, care of equipment and supplies, medical-legal relationships of the medical office, and the assistant's role.
Prerequisites: MA 4200.

Class-Lab-Credit

**4202 Clinical Procedures 1** **3-3-4**
Topics include: fundamentals of patient preparation, history taking, positioning, draping, taking and recording vital signs, assisting the physician with examinations, caring for physician's bag, and caring for examination room before and after patients.
Prerequisites: Admitted to program.

**4203 Clinical Procedures 2** **3-3-4**
Topics include: medications, sterile procedures, assisting in minor office surgeries, assisting in OB/GYN and special examinations - pap smears, pelvic, proctology, etc.
Prerequisites: MA 4202.

**4204 Medical Laboratory Procedures 1** **3-3-4**
Topics include: the use of basic laboratory equipment, quality assurance and quality control, specimen collection, hematology procedures, chemistry procedures including blood glucose and cholesterol, and urinalysis.
Prerequisites: High school biology, chemistry and math or instructor consent.

**4205 Medical Laboratory Procedures 2** **3-3-4**
A continuation of MA 4204. Topics include: microbiology, serology, and other diagnostic techniques such as electrocardiography, X-ray procedures, ultrasound, CAT scan, radionuclides, and pulmonary function testing.
Prerequisites: MA 4204.

**4206 Office Diagnostic & Treatment Procedures for Medical Assistants 1** **2-3-3**
A study of the relationship between diagnostic and therapeutic procedures and patient conditions. Students follow patients with disease conditions from the time they present in the office through the diagnosis and treatment their condition. Topics include: infectious diseases, circulatory diseases, diseases and conditions that require x-rays for diagnosis and therapy, and respiratory conditions and diseases.
Prerequisites: MA 4205.
Corequisites: BIO 4015.

**4207 Office Diagnostic & Treatment Procedures for Medical Assistants 2** **2-3-3**
Special diagnostic procedures and techniques related to the patient in the physician's office. Topics include: the diagnosis and treatment of patients with urinary tract problems, reproductive system problems, nervous system disorders, endocrine, and other disorders.
Prerequisites: MA 4205.
Corequisites: BIO 4016.

**4208 Medical Office Insurance & Coding** **3-6-5**
Topics include: principles of insurance, filing insurance claims, using superbills, coding of claims using CPT, ICD 9 CM, HCPCS, and electronic claims filing. Students use simulations and practical exercises with emphasis on the managed care environment and ambulatory care settings.
Prerequisites: MA 4200.

Class-Lab-Credit

**4209 Medical Assistant Seminar** **2-3-3**
Topics include: review of the theory and practice of skills needed by the entry level medical assistant and job readiness skills; resume preparation and job search and interviewing; preparation for National Certification Exam.
Prerequisites: MA 4201, MA 4208, MA 4203.

**4211 Medical Assisting Clinical Experience 1** **1-16-3**
Clinical practice performing functions related to medical assisting in physician offices, health centers and clinics, and hospital outpatient departments. Students spend an equal number of hours in clinical and administrative assisting. Students receive no remuneration for these experiences.
Prerequisites: Successful completion of first and second terms. Student must schedule pre-clinical conference with instructor.

**4212 Medical Assisting Clinical Experience 2** **1-16-3**
Clinical practice performing functions related to medical assisting in physician offices, health centers and clinics, and hospital outpatient departments. Students spend an equal number of hours in clinical and administrative assisting. Students receive no remuneration for these experiences.
Prerequisites: Successful completion of third and fourth terms; MA 4211.

**4213 Medical Assisting Clinical Experience 3** **1-16-3**
Clinical practice performing functions related to medical assisting in physician offices, health centers and clinics, and hospital outpatient departments. Students spend an equal number of hours in clinical and administrative assisting. Students receive no remuneration for these experiences.
Prerequisites: Successful completion of first year of program.

**4214 Medical Office Computer Literacy** **1-3-2**
Topics include: computer software, hardware, terminology, and medical office applications. Students gain hands-on experience using computers for word processing and in medical office applications.
Prerequisites: Typing 25 wpm.

**4215 Medical Assisting Clinical Applications** **2-3-3**
Topics include: trends in managed care, ambulatory care and health care in general. Students present on topics in MA professional practice and operate an on-site health clinic providing testing and patient education services.
Prerequisites: MA 4207, MA 4224.

**4224 Advanced Clinical Procedure** **2-3-3**
Topics include: specialties and special patient concerns and geriatrics, pediatrics, ophthalmology, orthopedics, and ENT.
Prerequisites: MA 4203.

**4245 Medical Office Billing and Reimbursement** **3-3-4**
Topics include: principles of bookkeeping and billing for medical office and managed care settings, collection theories and techniques; systems used for reimbursement practices; collection ratios and percentages; double entry, and pegboard procedures.
Prerequisites: MA 4200, MA 4201, MA 4208, MA 4214.

**4294 Workshops in Medical Assisting** **Var-Var-Var**
Consideration and study of selected issues and topics in the medical assisting area designed to meet current needs. Content and emphasis vary from year to year.
Prerequisites: None.

**4298 Special Studies - Medical Assisting** **Var-Var-Var**
A student-initiated academic pursuit, mutually agreed upon by the student and faculty member and carried on outside the classroom. Before registration, the student must have the plan of study approved by a supervising faculty member and the Dean of Health Technologies.
Prerequisites: Instructor consent.

**4299 Special Studies - Medical Assisting** **Var-Var-Var**
A student-initiated academic pursuit, mutually agreed upon by the student and faculty member and carried on outside the classroom. Before registration, the student must have the plan of study approved by a supervising faculty member and the Dean of Health Technologies.
Prerequisites: None.

**9387 Introduction to Medical Assisting Service Learning** **1-1-1**
An overview of community service organizations and agencies. Provides students with a sampling of possible service activities and assists with portfolio development and activity selection.
Prerequisites: Completion of the MA certificate program.

**9388 Medical Assisting Service Learning Project** **0-3-1**
A follow-up to MA 9387. Students complete a selected service project through a community agency. A minimum of 30 service hours is required and may be completed over three terms.
Prerequisites: MA 9387.

# MAC Computer Applications - Macintosh

**MAC 5102 = IT 5102 Introduction to Macintosh**

**MAC 5103 = IT 5103 Macintosh Applications-Excel/FileMaker**

**MAC 5105 = IT 5105 Macintosh Applications-Microsoft Word**

**MAC 5106 = IT 5106 Macintosh Applications-FileMaker Pro**

**MAC 5111 = IT 5443 Graphics Tools: Illustrator**

**MAC 5112 = IT 5441 Graphics Tools: Photoshop 1**

**MAC 5113 = IT 5444 Graphics Tools: Photoshop 2**

**MAC 5116 = IT 5116 Macintosh Applications-Adobe PageMaker**

**MAC 5117 = IT 5456 Desktop Publishing 1: QuarkXPress**



# MAT Mathematics

**1105 Science Mathematics** **4-0-4**
An applied mathematics course incorporating laboratory experiences. Topics include: problem solving; algebraic manipulation of formulas; metric system; significant figures; graphing; ratio, proportion and unit conversions; percents; estimation; measurement; and data collection.
Prerequisites: DE 0024 or appropriate placement test score.

**1111 Statistics 1** **3-0-3**
An introduction to the quantitative techniques of statistics, with an emphasis on applications. Topics include: the scientific method, quality characteristics, organizing and picturing data, descriptive statistics, correlation and regression, normal distribution and probability. Students must have a scientific calculator with STAT capabilities.
Prerequisites: MAT 1124 or MAT 1151 or equivalent.

**1112 Statistics 2** **3-0-3**
A continuation of MAT 1111. Topics include: probability distributions; binomial distribution; hypothesis testing of proportions, standard deviations, and means (one sample); sampling, and estimation. Students must have a scientific calculator with STAT capabilities.
Prerequisites: MAT 1111.

**1113 Statistics 3** **3-0-3**
A continuation of MAT 1112. Topics include: experimental design, two-sample hypothesis testing for means, chi-square tests, analysis of variance, and nonparametric methods. Course includes a group project. Students use statistical software.
Prerequisites: MAT 1112 or MAT 1179 or MAT 1132.

**1121 Business Mathematics 1** **3-0-3**
A course on the applications of mathematics in the business world. Topics include: arithmetic review, equations, and ratios, and a review of percents, payroll, taxes, and insurance. Students must have a scientific calculator.
Prerequisites: Appropriate placement test score or DE 0024.

**1122 Business Mathematics 2** **3-0-3**
A continuation of MAT 1121. Topics include: trade and cash discounts, markups and markdowns, inventory, depreciation, financial reports, graphs, statistics, distribution of profit, and overhead. Students must have a scientific calculator.
Prerequisites: MAT 1121.

**1123 Business Mathematics 3** **3-0-3**
A continuation of MAT 1122, emphasizing financial math. Topics include: simple interest, bank discounts, compound interest, multiple payment plans, annuities, amortizations, stocks, and bonds. Students must have a scientific calculator.
Prerequisites: MAT 1121.

**1124 Business Algebra** **4-0-4**
A review of the basic laws of algebra. Topics include: linear, quadratic and exponential equations with business applications in compound interest; annuities; graphing as a problem solving method; and simultaneous equations. Students must have two years of high school algebra, or the equivalent. Students must have a scientific calculator.
Prerequisites: Appropriate placement test scores or DE 0025.

Class-Lab-Credit

**1128 Business Calculus** **5-0-5**
Topics include: library of functions, the derivative, the definite integral, short-cuts to differentiation, using the derivative, and reconstructing a function from its derivative. Students use business applications. Students must have a graphing calculator.
Prerequisites: MAT 1152.

**1151 College Algebra** **4-0-4**
Topics include: summarizing and graphing one variable data; introduction to functions and functional notation; average rates of change of functions; graphing, writing and solving equations for linear functions; solving simultaneous equations. Students must have a graphing calculator; TI-83 preferred.
Prerequisites: DE 0025 or appropriate placement score.

**1152 Pre-Calculus** **5-0-5**
Topics include: introduction of functions; comparing linear and non-linear functions including polynomial, exponential, logarithmic and periodic; and transforming functions. Students must have a graphing calculator; TI-83 preferred.
Prerequisites: MAT 1151 or MAT 1191 or MAT 1124 or instructor consent.

**1154 Calculus 1** **5-0-5**
Topics include: library of functions, derivatives, definite integrals, shortcuts to differentiation, using derivatives, and reconstruction of a function from its derivative. Students must have a graphing calculator.
Prerequisites: MAT 1152 or MAT 1192 or instructor consent.

**1155 Calculus 2** **5-0-5**
Topics include: methods of integration (substitution, parts, tables, numerical and CAS), solutions of differential equations, using Euler's method, separation of variables, and Taylor Series. Students must have a graphing calculator.
Prerequisites: MAT 1154.

**1156 Calculus 3** **5-0-5**
Topics include: Maclaurin Series, Taylor Series, Fourier Series, first order differential equations, linear differential equations, second order differential equations, equations with repeated roots, nonhomogeneous equations, Laplace Transform, and numerical methods of solving differential equations. Students must have a graphing calculator.
Prerequisites: MAT 1155.

**1161 Applied Algebra** **3-2-4**
A course on the practical uses of algebra in engineering technology and basic science applications. Topics include: manipulating measured values and variables in formulas, the relationship between formulas and real devices, constructing and reading graphs, and reading numbers from technical drawings and from measuring devices. Students must have a scientific calculator.
Prerequisites: Appropriate placement test score.

Class-Lab-Credit

**1162 Applied Geometry & Trigonometry** **3-2-4**
A course on the practical uses of geometry and trigonometry in engineering technology and basic science applications. Topics include: manipulating the formulas of geometry and trigonometry, using geometric facts, the relationship between geometry and trigonometry, and reading numbers from technical drawings and from measuring devices. Students must have a scientific calculator.
Prerequisites: MAT 1161.

**1171 Technical Mathematics 1** **4-0-4**
Topics include: order of calculation, scientific notation, accuracy, rounding, unit conversion, formula and equation manipulation, ratio and proportion, area and volume calculation, right triangle trigonometry, functions, graphs and simultaneous equations. Students use applications from the sciences and the engineering technologies extensively. Students must have a scientific calculator.
Prerequisites: Appropriate placement test score or MAT 1162.

**1172 Technical Mathematics 2** **4-0-4**
Topics include: quadratic equations, equations involving fractions, oblique triangle trigonometry, solving exponential equations and equations using angles in radians. Students use applications from the sciences and the engineering technologies extensively. Students must have a graphing calculator; TI-83 preferred.
Prerequisites: MAT 1171.

**1173 Algebra & Trigonometry 2 with Statistics** **4-0-4**
Topics include: solving exponential and logarithmic equations; graphs of basic trigonometric functions; solving trigonometric equations, variation, second degree simultaneous equations and radical equations, and introduction to statistics. Students use applications from civil and environmental engineering. Students must have a graphing calculator; TI-83 preferred.
Prerequisites: MAT 1191 or MAT 1172.

**1179 Applied Statistics** **4-0-4**
An accelerated introduction to the quantitative techniques of probability and statistics as applied to manufacturing/industrial problems. Topics include: the scientific method, organization of data, graphical displays, descriptive measures, probability, binomial and normal distributions, sampling, hypothesis testing, and linear regression and correlation. Students use statistical software. Covers the same material as MAT 1111 and MAT 1112.
Prerequisites: MAT 1191 or MAT 1151 or MAT 1124.

**1191 Algebra and Trigonometry 1** **3-2-4**
Topics include: scientific calculations, unit conversions, geometry review, solving algebraic formulas, graphing, right triangle and oblique triangle trigonometry, quadratic equations, and simultaneous equations. Students use applications from the sciences and the engineering technologies extensively. Students must have a graphing calculator; TI-83 preferred.
Prerequisites: Appropriate placement test score or MAT 1162.

Class-Lab-Credit

**1192 Algebra and Trigonometry 2** **4-0-4**
Topics include: solving exponential and logarithmic equations, complex numbers, solving trigonometric equations, variation, second degree simultaneous equations, and graphs of trigonometric functions. Students use applications from the sciences and the engineering technologies extensively. Students must have a graphing calculator; TI-83 preferred.
Prerequisites: MAT 1191 or MAT 1172.

**1193 Analytic Geometry & Calculus 1** **4-0-4**
Topics include: analytic geometry involving lines and the conic sections, graphs, analysis of polynomial functions, derivative concept, and indefinite and definite integrals. Derivative applications include related rates and finding maximum and minimum points. Integral applications include areas and volumes and related topics. Students use applications from the sciences and the engineering technologies extensively. Students must have a graphing calculator; TI-83 preferred.
Prerequisites: MAT 1192.

**1194 Analytic Geometry & Calculus 2** **5-0-5**
Topics include: derivatives and integrals of transcendental functions, integration using tables, integration using the computer, double integrals, and partial derivatives with application to Least Squares curve fitting. Students use applications from the sciences and the engineering technologies extensively. Students must have a graphing calculator.
Prerequisites: MAT 1193.

**1198 Workshops in Mathematics** **Var-Var-Var**
Study of selected topics in mathematics designed to meet current needs. Content and emphasis vary from year to year.
Prerequisites: None.

**1199 Special Studies-Mathematics** **Var-Var-Var**
A personal academic pursuit related to the student's technical field of study mutually agreed upon by the student and supervising faculty member. The Dean of Humanities and Sciences must approve the plan of study prior to registration. Students receive grades of S or U for this course.
Prerequisites: None.

# MCH Multi-Competent Health Technology

**4000 Introduction to Medical Terminology** **1-2-2**
A computer-based introduction to a basic medical vocabulary through word analysis; use of prefixes, suffixes, word roots, and their combining forms; definition; spelling; and pronunciation of medical and surgical terms.
Prerequisites: None.

**4001 Introduction to the Health Care System** **2-0-2**
An overall view of the health care system. Topics include: history, organization, areas of specialization, roles and relationships, education, medical ethics, and patient rights.
Prerequisites: None.

Class-Lab-Credit

**4004 Medical Terminology 2** **1-2-2**
A continuation of MCH 4000. Topics include: basic word roots, prefixes and suffixes included in the integumentary, gastrointestinal, respiratory, cardiovascular, blood, lymph, immune, and musculoskeletal systems.
Prerequisites: MCH 4000.

**4008 Medical Terminology 3** **1-2-2**
A continuation of MCH 4004. Topics include: basic root words, prefixes, and suffixes included in the genitourinary, female reproductive, endocrine, and nervous systems, and special senses.
Prerequisites: MCH 4004.

**4805 Patient Care Skills** **1-3-2**
A course on basic health care concepts and skills for students planning a career in health care. Topics include: basic body mechanics, caregiver/client relationships, infection control, basic assessment skills, team building skills, and problem solving techniques.
Prerequisites: None.

**4810 Nurse Aide Training** **4-6-6**
A course on care of the elderly in long-term care facilities. Topics include: communication and interpersonal skills, mental health and social service needs, resident's rights, safety and emergency procedures, and basic restorative services. Successful completion of the course qualifies students to take the Ohio Board of Health Competency Evaluation Test.
Prerequisites: Current health records.

**4811 Home Health Aide Training** **2-0-2**
Understanding and working with various client populations in the home. Topics include: home management, preventing spread of infectious disease, and identifying community resources.
Prerequisites: Current NATP Certificate or state tested.

**4812 Introduction to the Patient Care Assistant Role** **4-0-4**
Prepares individuals for employment in acute care facilities as nursing assistive personnel. Topics include: role definition/clarification, communication, basic anatomy/physiology concepts with associated observations, overview of nutrition/diet therapy, introduction to common pathologies, and commonly delegated skills.
Prerequisites: State Tested Nurse Aide (MCH 4810).

**4813 Restorative Aide Training** **1-2-2**
An overview of the restorative aide role and responsibilities for employment in acute care or long-term care environments. Topics include: rehabilitation services to return individuals to optimal mobility and functioning following various conditions.
Prerequisites: State Tested Nurse Aide or current NATP Certification.

**4814 Direct Patient Care Experience** **0-3-1**
A clinical course providing direct patient care experience in either acute or long term care facilities. Depending on educational preparation, students function as nurse aides or patient care assistants under the direct supervision of an RN instructor.
Prerequisites: State Tested Nurse Aide.

Class-Lab-Credit

**4816 Health and Wellness Promotion 1-2-2**
A course on consumer health and wellness issues. Topics include: self empowerment, stress reduction, physical fitness, healthy eating, addiction avoidance, reduction of risk factors in disease and alternative therapies, aerobic exercise, meditation, and blood pressure and blood glucose screenings.
Prerequisites: None.

**4817 Integrative Therapies for Holistic Health 3-2-4**
A course on current holistic health care practices. Topics include: comparison of the philosophies and practices of Eastern to Western medicine with emphasis on the practice of Chinese, Ayurvedic, and naturopathic medicine, practice of basic skills such as therapeutic massage, acupressure, and other therapies common to integrative medical practices.
Prerequisites: MCH 4816.

**4818 Survey of Alternative and Complementary Medicine 3-0-3**
An introductory course in alternative and complementary medicine. Topics include: alternative medical practices such as mind-body interventions, bioelectromagnetic applications in medicine, community-based health care practices, manual healing methods, pharmacologic and biologic treatments, diet and nutrition in the prevention and treatment of disease, and unclassified diagnostic and treatment methods.
Prerequisites: None.

**4820 Medical Transcription 1 3-2-4**
An introductory course to medical transcription. Topics include: information on word processing and dictation equipment, medical ethics, legal matters, advanced medical terminology related to diseases, and operations in medical reports.
Prerequisites: MCH 4000, OT 3061.

**4821 Medical Transcription 2 3-2-4**
A continuation of MCH 4820. Topics include: advanced terminology and transcription of medical reports, including operative reports, consultations, and discharge summaries.
Prerequisites: MCH 4820.

**4822 Medical Transcription 3 3-2-4**
A continuation of MCH 4821. Topics include: more difficult medical reports and marketing and managing a transcription service. Information on computer and voice recognition dictation equipment.
Prerequisites: MCH 4821.

**4825 Medical Transcription-Distance 9-6-12**
An accelerated certificate in Medical Transcription for students who have a health care degree or certificate. Primarily offered via electronic delivery, i.e. internet, e-mail and fax. Students must have access to a computer and the internet. Successful completion of this course is equivalent to completion of MCH 4820, MCH 4821, and MCH 4822.
Prerequisites: ENG 1001, OT 3058, MCH 4000, MCH 4004, BIO 4073, BIO 4074, or instructor consent.

Class-Lab-Credit

**4840 Orientation to the Health Record 2-2-3**
Orients new students to the content and format of the health record. Topics include: standard health record forms, legal issues that relate to the health record, basic rules of health record maintenance, and filing and retrieval of diagnostic reports.
Prerequisites: None.

**4841 Unit Coordinator Procedures 1 2-2-3**
Topics include: the processing of patient charts for admission, transfer, and discharge; transcription of nursing treatment orders, medication orders, respiratory and physical therapy orders; and the use of relevant computer software.
Prerequisites: MCH 4840.

**4842 Unit Coordinator Procedures 2 2-4-4**
A continuation of MCH 4841. Topics include: X-ray procedures, MRI scan, nuclear medicine, ultrasound, and endoscopy. Course is parallel to a field experience in an area health care facility.
Prerequisites: MCH 4841.

**4846 Introduction to Therapeutic Massage 1-2-2**
Introduction to the use of therapeutic massage in the health care system. Lab includes scientific application of soft tissue manipulation.
Prerequisites: MCH 4855.

**4849 Unit Coordinator Practicum and Seminar 3-18-6**
Clinical practice in an area health care facility performing functions related to health unit coordinating. Includes an on-campus seminar.
Prerequisites: Successful completion of first and second term.

**4870 Basic Electrocardiography & Arrhythmia Recognition 3-2-4**
An introduction to the principles of electrocardiography. Topics include: the electrical conductive system of the heart, patient preparation, setting up the ECG machine, recognizing and correcting distortion problems, basic arrhythmias, and special procedures.
Prerequisites: BIO 4073, college level reading and writing skills.

**4871 Advanced Arrhythmia Recognition 3-0-3**
An advanced course in electrocardiography. Topics include: recognizing arrhythmias; review of basic ECG principles; interpretation of various types of atrial, function and ventricular dysrhythmias; and various measurements and calculations to aid in interpretation.
Prerequisites: MCH 4870 or instructor consent.

**4880 MCH Health Care Settings 3-0-3**
A course on the interdisciplinary relationship between various health care professionals. Students visit selected health care settings.
Prerequisites: MCH 4840 or instructor consent.

**4881 Current Issues in Health Economics 3-0-3**
A study of current trends and issues in health care systems economics. Topics include: the differences between medical care and other commodities in the study of economics.
Prerequisites: MCH 4001.

**4882 Law and Ethics for Health Care 3-0-3**
Topics include: legal and ethical issues that face the interdisciplinary health care team. Students evaluate case studies relevant to their academic discipline.
Prerequisites: MCH 4000 or instructor consent.

**4883 General X-ray Machine Operation 3-0-3**
A course that prepares students for Ohio Licensure as a General X-ray Machine Operator. Topics include: instruction on radiation physics, radiographic techniques, darkroom processing and film handling, radiation health safety and protection, and radiation biology.
Prerequisites: None.

**4885 Health Care Team-Based Management 3-0-3**
Prepares health care supervisors and managers for their changing role in high-performance environments. Topics include: developing skills in enhancing trust levels, coaching team-based problem-solving and decision-making, and developing partnerships.
Prerequisites: PSY 1502.

**4886 Quality Issues in Health Care 3-0-3**
Topics include: governmental and quasi-governmental organizations responsible for health care accreditation and regulation, health care provider departments charged with addressing regulation, and major issues and trends affecting the delivery of quality health care services.
Prerequisites: None.

**4890 Introduction to Medical Insurance and Billing 3-0-3**
A course that provides exposure to the many types of health care insurance carriers. Topics include: an overview of billing practices and completion of claims forms.
Prerequisites: MCH 4000, MCH 4840 or instructor consent.

**4897 Massage Therapy Special Studies Var-Var-Var**
Study and special projects concerning integrative massage therapy open to licensed massage therapists for Associate of Technical Studies degree in integrative massage therapy.
Prerequisites: Licensed Massage Therapist (State of Ohio).

**4898 Special Studies - MCH Var-Var-Var**
A student-initiated academic pursuit, mutually agreed upon by the student and faculty member and carried on outside the classroom. Before registration, the student must have the plan of study approved by a supervising faculty member and the Dean of Health Technologies.
Prerequisites: Instructor consent.

**4899 Special Studies - MCH Var-Var-Var**
A student-initiated academic pursuit, mutually agreed upon by the student and faculty member and carried on outside the classroom. Before registration, the student must have the plan of study approved by a supervising faculty member and the Dean of Health Technologies. Students receive grades of S or U for this course.
Prerequisites: Instructor consent.



**9367 Cooperative Education - Multi-Competency Health Technician 1-40-2**
The Multi-Competency Health Technician student participates in full-time work experience. This experience provides an opportunity to apply knowledge and skills acquired in classes. Students must adhere to the Health Technologies Division Student Handbook and program requirements.
Prerequisites: Admitted to program, coordinator approval, 2.0 minimum GPA.

**9377 Parallel Cooperative Education - Multi-Competency Health Technician 1-20-1**
Multi-Competency Health Technician students participate in part-time paid field learning experience while completing other program requirements. This experience provides an opportunity to apply knowledge and skills acquired in classes. Students must adhere to the Health Technologies Division Student Handbook and program requirements.
Prerequisites: Admitted to program, coordinator approval, 2.0 minimum GPA.

# MET Mechanical Engineering Technologies

**7002 Engineering Graphic Concepts 1-2-2**
An introduction to basic drafting techniques such as line quality, lettering and geometric construction; prepares students for success in ET 7008 and CET 7024. Required for all Engineering Technology pre-tech students unless specifically waived by the Dean of the Engineering Technologies.
Prerequisites: None.

**7005 Introduction to Blueprint Reading 2-2-3**
Topics include: machine-trades, blueprint reading, shop sketching, and technical terminology.
Prerequisites: None.

**7008 Engineering Drawing 1 2-3-3**
An introduction to the techniques and functions of drafting. Topics include: equipment, lettering, line quality, line types, orthographic projection, sectioning, dimensioning, and machined hole types.
Prerequisites: None.
Corequisites: MAT 1171.

**7027 Beginning AutoCAD 2-3-3**
An introduction to Computer Aided Design/Drafting. Topics include: AutoCAD drawing, editing, and display commands; creating various drawings on the computer; defining blocks; layering; and plotting techniques.
Prerequisites: EET 7035 or equivalent.

**7028 Intermediate AutoCAD 2-3-3**
A continuation of MET 7027. Topics include: CAD/D drawing techniques including external referencing and advanced features of CAD/D, creating drawings on the computer, block attributes, and prototype drawings.
Prerequisites: MET 7027.

Class-Lab-Credit

**7029 Advanced AutoCAD** **2-3-3**
A continuation of MET 7028. Topics include: CAD/D drawing techniques including isometric drawing, 3 dimensional drawing and surfacing on the computer, customizing the various types of AutoCAD menus, and working with slides to create a slide show for presentations.
Prerequisites: MET 7028.

**7110 AutoCAD 1 (Mechanical)** **2-3-3**
A course on efficient CAD operation. Topics include: updated drafting and dimensioning techniques per the ANSI Y14.5M-1994 standard, and two-dimensional machine and component drawings.
Prerequisites: None.
Corequisites: MET 7008.

**7111 Engineering Materials** **3-2-4**
Topics include: steel and steel alloys, cast iron, aluminum, polymers, ceramics, and composites; the manufacturing process; strengthening methods; testing procedures of materials. Students use the materials testing laboratory to study the physical and mechanical properties of various materials.
Prerequisites: MAT 1191.

**7120 AutoCAD 2 (Mechanical)** **2-3-3**
A course on building three-dimensional CAD models. Topics include: wireframe, surfaced, and solid models.
Prerequisites: MET 7110.

**7121 Engineering Drawing 2 with AutoCAD** **2-3-3**
Topics include: secondary auxiliary views, sectioning, dimensioning, class of fits, surface finish designations, tolerancing, threads, fasteners, welding representations, stack-up analysis, and geometric feature controls dimensioning.
Prerequisites: MET 7008, MET 7110.

**7122 MET CAD 3** **2-3-3**
Students produce complex three-dimensional models using advanced Computer Aided Design and Drafting software packages.
Prerequisites: MET 7120, MET 7121.

**7125 Visual BASIC (MET)** **3-2-4**
A course on using Visual BASIC to write and code MET related software. Topics include: form layout and definition, labels and text boxes, command buttons, option buttons, variable types, arrays, for-next loops, and if statements. Students need experience in Microsoft Windows prior to taking this course.
Prerequisites: MET 7110.

**7130 Engineering Mechanics-Statics** **3-2-4**
Topics include: using vector algebra to determine component forces and moments and their effects on machine parts, frames, and structures in static equilibrium; vector analysis; free body diagrams; evenly distributed loads; equilibrium; trusses and frames; friction; center of gravity; and moment of inertia.
Prerequisites: MAT 1191, PHY 2291.

Class-Lab-Credit

**7132 Hydraulics & Pneumatics** **3-3-4**
Topics include: fluid transport and power studies of liquid and gas systems, hydraulic and pneumatic pumps, compressors, control logic, actuators, motors, reservoirs, safety concerns, and piping components. Using CAD, students create machine control schematics with ANSI symbols and use pressure, directional, and flow control valves in those circuits.
Prerequisites: MAT 1192, PHY 2292.

**7135 Fluid Power Systems** **3-3-4**
A course on basic principles of hydraulics and pneumatics. Topics include: the generation, distribution, and control of fluid power and fluid transport systems; graphical symbols; circuits; and the fundamental concepts of servo-hydraulics, air logic, fluidics, and machine and process control systems.
Prerequisites: MAT 1191, PHY 2291.

**7140 Strength of Materials** **3-3-4**
A course on the analysis of stresses and strains that occur within machine and structural elements subjected to various types of loads. Topics include: axial and bending stresses; direct, horizontal and torsional shear; deflection; and combined stresses.
Prerequisites: MET 7110, MET 7130.

**7141 Kinematics & Dynamics of Machines** **3-2-4**
A course in the analysis of mechanisms where mathematical, computer aided design and graphical solutions of machine kinematics and dynamics are studied. Topics include: linear and angular displacement, velocity, acceleration, work, force, horsepower, harmonic motion, mass moment of inertia, and dynamic balance.
Prerequisites: MAT 1192, PHY 2292.

**7148 Applied Thermodynamics** **3-2-4**
Topics include: the application of the first and second laws of thermodynamics, the energy equation of gases, Mollier diagrams, energy utilization, heat transfer, specific heat, the carnot cycle, entropy, enthalpy, adiabatic processes, steam generation and turbines, internal combustion engines, and mechanical refrigeration.
Prerequisites: PHY 2292.

**7150 Machine Design 1** **3-3-4**
The application of the principles of engineering mechanics and strength of materials to the analysis and selection of mechanical elements and components. Topics include: combined stresses, Treska's and Von Mise's theories of failure, tolerances and fits, shaft components, shaft design, fasteners, and bolted connections. Students write various calculation-intensive computer programs to aid in solving design problems.
Prerequisites: MET 7125, MET 7140.

**7155 Machine Design 2** **3-3-4**
A continuation of MET 7150. Topics include: springs; spur, helical, bevel, and worm gearing; belts and chains; plain surface and rolling contact bearings; power and ball screws; clutches and brakes. Students write calculation-intensive computer programs to aid in solving design problems and/or selecting mechanical components.
Prerequisites: MET 7150.

Class-Lab-Credit

**7158 MET Design Project 2** **2-3-3**
A continuation MET 7198. Topics include: the manufacturing of the completed design and prototype of the assigned project from MET 7150.
Prerequisites: MET 7198.

**7198 MET Design Project 1** **2-3-3**
Topics include: various types of design and manufacturing processes such as rapid prototype, metal casting, and RTV molding. Students participate in a team project that requires mechanical design, manufacturing processes, and actual manufacturing of the specific components.
Prerequisites: EET 7733 and (MET 7150 or MET 7340).

**7199 Special Problems Seminar - Mechanical** **Var-Var-Var**
Independent study and/or special projects pertaining to the Mechanical Engineering Technology program. The study may deal with an idea or concept not usually covered by existing courses at the College. Only available to students by special arrangements with the instructor and the program chair.
Prerequisites: Varies.

**7220 Plastic Materials and Processes 1** **2-3-3**
An introduction to the material properties, typical product applications, and manufacturing techniques for polymers. This course is an overview for all three of the advanced courses in plastics.
Prerequisites: None.

**7230 Plastic Materials and Processes 2** **2-3-3**
A course on advanced polymer materials. Topics include: organic chemistry, macro molecular principles, material selection for design of plastic products, and thermoset, thermoplastic, and elastomeric materials.
Prerequisites: MET 7220.

**7240 Plastic Materials and Processes 3** **3-2-4**
An advanced course on polymer manufacturing. Topics include: process selection, control of variables, troubleshooting, injection molding, extrusion, blow molding, and vacuum and pressure thermoforming.
Prerequisites: MET 7230.

**7250 Plastic Materials and Processes 4** **3-2-4**
An advanced course on injection mold design. Topics include: complete mold design projects with a comprehensive treatment of fluid dynamics, stress analysis, heat transfer, and other mold design considerations.
Prerequisites: MET 7240.

**7310 Manufacturing Processes with CNC Programming 1** **2-3-3**
A course on the fundamental principles of fabricating material. Topics include: metal-removing processes of turning, facing, milling, drilling; material removal processes; measuring techniques; materials considerations; feeds and speeds; tooling requirements; and manufacturing with plastics and composites. Students generate CNC programs and produce actual parts on CNC lab equipment.
Prerequisites: None.
Corequisites: MAT 1171, MET 7110.

Class-Lab-Credit

**7320 Manufacturing Processes with CNC Programming 2** **2-3-3**
A continuation of MET 7310. Topics include: material additions; thermal, powder, mechanical, and other methods of change of form; methods of material joining such as adhesives, welding, and mechanical fasteners; and mechanical surface finishing, surface treatment, and coating. Students produce CNC programming of increasingly complex parts on 2 axis mills and lathes.
Prerequisites: MET 7310.

**7330 CAD-CAM 1** **2-3-3**
An introduction to CAD/CAM. Topics include: CAM simulation, hands-on machining of lab parts, and an introduction to prototyping techniques. Students take part dimensional data directly from the CAD file and use CAM software to create a CNC program for producing the part on a CNC machine.
Prerequisites: MET 7110, MET 7320.

**7340 CAD-CAM 2** **2-3-3**
A continuation of MET 7330. Topics include: CAM simulation, hands-on machining, prototyping, and an introduction to metal casting. Students generate multi-piece parts using CAD and use CAM software to create a CNC program for producing the parts on a CNC machine.
Prerequisites: MET 7330.

**7345 Manufacturing Process Planning and Estimating** **3-3-4**
Topics include: the applications of manufacturing processes, sequencing of operations, durable and perishable tooling, material usage, quality considerations, direct and indirect rates and times, burden, overhead, basic time, and motion concepts. Students process and estimate the cost necessary to produce a finished product per drawing specifications.
Prerequisites: MET 7320.

**7351 CAD-CAM 3** **3-3-4**
A continuation of MET 7340. Topics include: generating 3D contour parts using CAD, using CAM software to create a CNC program for producing the parts on a CNC machine, CAM simulation, hands-on machining, and prototyping.
Prerequisites: MET 7340, MET 7120.

**7355 Quality Control with SPC** **2-3-3**
A course on the various control concepts necessary for a company to compete in the worldwide market. Topics include: quality history and evolution, product requirements, continuous improvements, zero defects, sampling plans, total quality control, statistical process control, and total quality management and ISO 9000 concepts.
Prerequisites: MAT 1192, MET 7320.

# MGT Management

**1832 Human Resource Management** **3-0-3**
A broad overview of the traditional functions of a personnel office. Topics include: job evaluation, recruitment, interviewing, training, employee and union relations, employee services, and concepts concerning human relations and organizational behavior.
Prerequisites: None.

Class-Lab-Credit

**2965 Principles of Management 1** **3-0-3**
The first of a two-part, in-depth course for management majors. Topics include: the history of management, the varied domestic and global environments for management, and the management functions of planning and organizing. Students apply these theories to case studies.
Prerequisites: None.

**2966 Principles of Management 2** **3-0-3**
The second of a two-part, in-depth course for management majors. Topics include: the controlling function, techniques of motivation, leadership, and managing teams for today's managers. Students apply these theories to case studies.
Prerequisites: MGT 2965.

**2967 Introduction to Management** **3-0-3**
A course for non-management majors who assume supervision duties. Topics include: planning, organizing, influencing, and controlling for domestic and international businesses. Students apply these theories to case studies.
Prerequisites: None.

**2970 Contemporary Management** **3-0-3**
Topics include: leadership, developing quality employees, innovation in the workplace, change in the workplace, and customer service management. Students learn how to apply these concepts in today's current management situations.
Prerequisites: None.

**2971 Small Business Start-Up 1** **3-0-3**
An introduction to the ownership and operation of a small business. Topics include: formation and start-up, basic sources of funding and financial management, location and layout. Students develop a business plan.
Prerequisites: None.

**2972 Small Business Start-Up 2** **3-0-3**
The second course in the ownership and operation of a small business. Topics include: the elements of management and control, marketing, and legal implications and government regulations that affect a small business owner.
Prerequisites: MGT 2971.

**2975 Business Management Seminar** **2-3-3**
An in-depth management course using case study and simulation methods. Topics include: the entire scope of management including all functional and decision-making areas.
Prerequisites: MKT 2902, ACC 2912, MGT 2966.

**2977 Students in Free Enterprise 1** **1-0-1**
Students develop two projects completed during the term and one project continued in subsequent terms. Projects must follow SIFE mission to develop leadership, teamwork, and communication skills through learning/teaching free enterprise principles.
Prerequisites: None.

**2978 Students in Free Enterprise 2** **1-0-1**
Students develop and complete two projects and continue project from MGT 2977 with emphasis on implementation. Projects must follow SIFE mission to develop leadership, teamwork, and communication skills through learning/teaching free enterprise principles.
Prerequisites: MGT 2977.

Class-Lab-Credit

**2979 Students in Free Enterprise 3** **1-0-1**
Students develop and complete two projects and continue project from MGT 2977 and MGT 2978 with emphasis on completion, evaluation, and preparation for competition presentation. Projects must follow SIFE mission to develop leadership, teamwork, and communication skills through learning/teaching free enterprise principles.
Prerequisites: MGT 2978.

**2986 Individual Performance Development** **3-0-3**
Students learn skills to ensure adequate performance of employees. Topics include: establishing clear expectations and utilizing motivational and coaching techniques to enhance employee performance. Students participate in structured experiences.
Prerequisites: MGT 2970.

**2987 Change Management for Quality** **3-0-3**
Students learn how situational leadership styles foster work process and performance improvements. Topics include: change management strategies that lead to innovation and higher quality products and services. Students participate in structured experiences.
Prerequisites: MGT 2970.

**2988 Total Quality for Managers** **3-0-3**
Topics include: the concepts involved in focusing the resources in a manufacturing or service organization on continual improvement of both quality and productivity and the establishment of a total quality culture.
Prerequisites: None.

**2989 Customer Service Systems** **3-0-3**
Topics include: the fundamentals of creating and keeping customers, creating a customer-focused organizational framework, using customer feedback systems, and developing customer-driven reward systems. Students participate in structured experiences.
Prerequisites: None.

**2996 Project Management** **2-2-3**
An introductory course in project management for various industries. Topics include: setting project goals, managing schedules and workloads, allocating resources, dealing with departmental issues, and delegating within a project team structure. Students use computer software.
Prerequisites: OT 1850 or equivalent.

# MIS Management Information Systems

**MIS 1701 = IT 5201 Information Technology Concepts**

**MIS 1704 = IT 5204 Program Design 1**

**MIS 1705 = IT 5205 Program Design 2**

**MIS 1706 = IT 5206 Programming Logic and BASIC**

**MIS 1711 = IT 5230 Introduction to Computer Operations**

**MIS 1713 = IT 5240 Advanced Facility: AS400**

Class-Lab-Credit

**MIS 1714 = IT 5241 Applications: AS/400**

**MIS 1721 = IT 5202 Programming Logic and Methods**

**MIS 1722 = IT 5291 Visual BASIC 1**

**MIS 1723 = IT 5292 Visual BASIC 2**

**MIS 1724 = IT 5293 Visual BASIC 3**

**MIS 1731 = IT 5231 Operating Systems: DOS/Windows 1**

**MIS 1733 = IT 5232 Operating Systems: DOS/Windows 2**

**MIS 1734 = IT 5208 PC Software Support**

**MIS 1739 = IT 5233 Operating Systems: AS 400 1**

**MIS 1741 = IT 5234 Operating Systems: AS 400 2**

**MIS 1742 = IT 5251 Structured COBOL 1**

**MIS 1754 = IT 5211 Data Communications 1**

**MIS 1761 = IT 5261 RPG 400 1**

**MIS 1762 = IT 5252 Structured COBOL 2**

**MIS 1763 = IT 5207 Systems Analysis and Design**

**MIS 1764 = IT 5212 Data Communications 2**

**MIS 1769 = IT 5310 Programming Database Applications**

**MIS 1771 = IT 5311 Database Management Systems**

**MIS 1774 = IT 5130 Telecommunications Management**

**MIS 1779 = IT 5131 Network Management/Help Desk**

**MIS 1781 = IT 5262 RPG 400 2**

**MIS 1784 = IT 5120 LAN Administration: Novell**

**MIS 1787 = IT 5121 LAN Administration: Windows NT**

# MKT Marketing

**1810 Principles of Sales** **3-0-3**
Topics include: analysis of the general principles and techniques of effective salesmanship, requisite background information for successful sales, and analysis of the selling process. Sales presentation required.
Prerequisites: None.

**1844 Principles of Advertising** **3-0-3**
An introduction to the advertising field and to the sales message planning and production process. Topics include: research, media buying and planning, copywriting, art direction, print and broadcast production, media sales, sales promotion and product publicity, budgeting, and scheduling.
Prerequisites: None.

Class-Lab-Credit

**1845 Principles of Retail Management** **3-0-3**
An introduction to the retailing field. Topics include: the technical and theoretical knowledge necessary for retail mid-management employment. Students use case studies to gain practical operating experience.
Prerequisites: None.

**1873 E-Commerce Business Strategy** **3-0-3**
An overview of electronic commerce. Topics include: differences and similarities between E-commerce and traditional commerce; and goals and experiences in communicating, gathering information, shopping, maintaining relationships.
Prerequisites: None.

**1874 Web Site Selling** **2-2-3**
Topics include: choosing and positioning the right product or service for a commercial website, building traffic to the site, and successful strategies for selling on the Internet.
Prerequisites: OT 1850, MKT 2901, MKT 2902.

**1878 Internet Advertising** **2-2-3**
A course on the principles of advertising as they relate to the unique challenges of advertising on the Web.
Prerequisites: None.

**1879 E-Commerce Project** **2-4-4**
Students design a Web business for a real product including developing a business and marketing plan. Projects must include all areas of e-business.
Prerequisites: Instructor consent.

**1883 Search Engine Strategies** **2-2-3**
A course on strategies for improving search engine rankings of websites on the major search engines. Topics include: the study of how people search online and how the major search engines find and rank pages.
Prerequisites: IT 5453, MKT 1873.

**2901 Principles of Marketing 1** **3-0-3**
Topics include: the marketing environment, buying behavior, segmentation, market research, and forecasting.
Prerequisites: None.

**2902 Principles of Marketing 2** **3-0-3**
A continuation of MKT 2901. Topics include: the parts of the marketing mix - promotion, distribution, price, product.
Prerequisites: MKT 2901 or coordinator consent.

**2903 Introduction to Marketing** **3-0-3**
An introductory course for non-marketing/management majors that covers the basic principles of marketing. Topics include: a basic understanding of the marketing mix and how it relates to business operations in satisfying domestic and international customs.
Prerequisites: None.

**2923 Marketing Concepts & Applications** **3-0-3**
Students apply marketing theory and simulate actual business situations through projects and case simulations. Successful completion of OT 1850 or equivalent is recommended.
Prerequisites: MKT 2902.

Class-Lab-Credit

**2990 Entrepreneurial Marketing** **3-0-3**
A course for potential new or small business owners. Topics include: selecting marketing strategies, managing marketing efforts, and successful marketing methods.
Prerequisites: None.

# MRDD Mental Retardation & Developmental Disabilities

**1220 Interviewing & Counseling for the MR/DD Professional** **3-0-3**
A course focusing on case management/service coordination for interviewing and counseling of persons with MR/DD and their families. Topics include: methods of interviewing/counseling; confidentiality and documentation; identifying need for crisis intervention; conflict management skills; implementing/reinforcing professional boundaries.
Prerequisites: Employed by a County Board of MR/DD.

**1221 Team Process for the MR/DD Professional** **3-0-3**
A course focusing on the effective development of Professional Service Teams as a means of providing services to the MR/DD population. Topics include: MR/DD team development, roles and responsibilities within MR/DD teams, and managing conflict within teams and with individuals served.
Prerequisites: Employed by a County Board of MR/DD.

# MUS Music

**1665 Introduction to Music 1** **3-0-3**
An introduction to major periods in Western musical history from the Middle Ages to the early nineteenth century. Topics include: major composers of the Western musical tradition and development of perceptive listening habits through analysis of compositional styles and techniques.
Prerequisites: None.

**1666 Introduction to Music 2** **3-0-3**
An introduction to major periods in Western musical history from the nineteenth century Romantic period to the twentieth century. Topics include: jazz, American musicals, early rock, and development of perceptive listening habits through analysis of compositional styles and techniques.
Prerequisites: MUS 1665 or instructor consent.

**1667 Introduction to Music 3** **3-0-3**
An introduction to musical styles. Topics include: voices and the musical stage in Western culture, including jazz, ragtime, blues, swing and other styles presented in American musicals and operettas of Broadway and Hollywood; and development of perceptive listening habits.
Prerequisites: MUS 1666 or instructor consent.

# NUR Nursing

**4900 Care of the Sick Child** **3-3-4**
A course on nursing principles specific to sick children. Topics include: common childhood, acute, and chronic illnesses. Lab work emphasizes acquisition of basic nursing skills for sick child care.
Prerequisites: BIO 4073, ECE 4363, ECE 4364 or instructor consent.

Class-Lab-Credit

**4920 Applied Nursing Theory Concepts** **0-2-1**
A course on the application of nursing process and teaching/learning concepts for LPNs admitted to the Alternative Track.
Prerequisites: Admitted to the nursing technical sequence.
Corequisites: NUR 4921, NUR 4945, BIO 4016.

**4921 Nursing Skills (NURP)** **0-2-1**
Designed for the LPN admitted to the Alternative Track. The focus of this course is the student's ability to demonstrate competency in selected psychomotor skills and math calculations. Students have the opportunity to test out of portions of this course.
Prerequisites: Admitted to the nursing technical sequence.
Corequisites: BIO 4016, NUR 4920, NUR 4945.

**4922 Role Transition in Nursing 1** **4-4-6**
For the LPN admitted to the Alternative Track. Topics include: wellness across the life span and review of common health problems. Students apply content in selected community and hospital settings. With successful completion of this course, LPNs apply for ASC for NUR 4943, 6 credits.
Prerequisites: BIO 4016, NUR 4920, NUR 4921, NUR 4945.
Corequisites: NUR 4955.

**4923 Role Transition in Nursing 2** **4-4-6**
For the LPN admitted to the Alternative Track. Topics include: emotionally distressed clients and directed review of care for older adults. Students apply content in mental health and gerontological nursing settings. With successful completion of the course, LPNs apply for ASC for NUR 4954, 5 credits.
Prerequisites: NUR 4922, NUR 4955.

**4924 Nursing of Children (NURP)** **3-4-5**
For the LPN admitted to the Alternative Track. Topics include: nursing care of the infant through adolescent within the family unit, effective communication, development issues, childhood illnesses and their impact on the family. Clinical experiences occur in a variety of settings.
Prerequisites: PSY 1508, NUR 4923.
Corequisites: NUR 4925.

**4925 Perinatal Nursing and Women's Health Issues (NURP)** **3-4-5**
For the LPN admitted to the Alternative Track. Topics include: nursing care of the childbearing family, women's health and reproductive issues, sexually transmitted infections, and perinatal experiences. Clinical experiences occur in a variety of settings.
Prerequisites: PSY 1508, NUR 4923.
Corequisites: NUR 4924.

**4926 Adult Nursing (NURP)** **6-8-10**
For the LPN admitted to the Alternative Track. Topics include: holistic nursing responses to medical/surgical health problems, continuity of care and collaboration. Clinical experiences occur in a variety of acute care settings. Completion of ENG 1010 or ENG 1003 and SPE 1022 or SPE 1024 are required for entry.
Prerequisites: Completion of all communication electives.

Class-Lab-Credit

**4927 Role Transition in Nursing 3** **6-12-12**
For the LPN admitted to the Alternative Track. Course focuses on transition to professional nursing. Achievement of a predetermined score on a national standardized nursing achievement exam is a requirement for completion.
Prerequisites: NUR 4926.

**4931 Nursing Skills Laboratory 1** **0-3-1**
The first of two skills lab courses. Topics include: selected psychomotor nursing skills, medical math skills, medical terminology, and basic computer skills.
Prerequisites: Admitted to Nursing Technical Sequence.
Corequisites: NUR 4933.

**4933 Introduction to Nursing** **4-3-5**
A technical course on the role of nursing in health care. Topics include: critical thinking, professional behavior, nursing process, effective communication, teaching/learning principles, and cultural diversity. Includes laboratory/clinical experiences.
Prerequisites: Admitted to Nursing Technical Sequence.
Corequisites: NUR 4931.

**4937 Nutrition and Diet Therapy in Nursing** **2-2-3**
Fundamental principles of normal and therapeutic nutrition for individuals throughout the lifespan. Lab activities include a variety of application processes including alternative methods for provision of nutrients. Team taught by an RD and an RN.
Prerequisites: BIO 4018, NUR 4941, NUR 4943, NUR 4946.

**4941 Nursing Skills Laboratory 2** **0-3-1**
The second of two skills lab courses. Students practice and demonstrate competency in the performance of selected intermediate level psychomotor and math skills.
Prerequisites: PSY 1508, BIO 4016, NUR 4931, NUR 4933.
Corequisites: NUR 4943, NUR 4946.

**4943 Common Health Problems in Nursing** **6-6-8**
Planning and administration of basic nursing care for adults. Topics include: nursing response to common health problems such as diabetes, pain, the perioperative experience, immune responses, and cardiovascular and respiratory diseases.
Prerequisites: PSY 1508, BIO 4016, NUR 4931, NUR 4933.
Corequisites: NUR 4941, NUR 4946.

**4945 Health & Physical Assessment 1 (NURP)** **1-2-2**
The first of two health assessment courses for LPN to RN students. Topics include: interviewing and documentation skills and physical assessment of the skin, thorax and lungs, musculoskeletal system, heart, and peripheral vascular system.
Prerequisites: Admitted to the nursing technical sequence.
Corequisites: NUR 4920, NUR 4921.

**4946 Health Assessment in Nursing I** **1-3-2**
The first of two health assessment courses. Topics include: assessment of thorax and lungs, heart and blood vessels, abdomen, and skin; interviewing; documentation; and physical assessment skills. Students apply skills in clinical settings.
Prerequisites: PSY 1508, BIO 4015, NUR 4931, NUR 4933.
Corequisites: NUR 4943, NUR 4941.

Class-Lab-Credit

**4953 Mental Health Nursing** **3-6-5**
Nursing care of the emotionally distressed client. Topics include: theories of human behavior, major psychiatric disorders, and professional and sensitive use of self to effectively communicate and provide care. Clinical experiences occur in a variety of settings.
Prerequisites: BIO 4018, NUR 4941, NUR 4943, NUR 4946.
Corequisites: NUR 4954, NUR 4956.

**4954 Gerontological Nursing** **3-6-5**
Nursing care of the older adult. Topics include: aging processes; special concerns for older adults; promotion, maintenance, and restoration of health; and coping with chronic illness. Clinical experiences occur in a variety of settings.
Prerequisites: BIO 4018, NUR 4941, NUR 4943, NUR 4945.
Corequisites: NUR 4953, NUR 4956.

**4955 Health & Physical Assessment 2 (NURP)** **1-2-2**
The second health assessment course for LPN to RN students. Topics include: physical assessment of the eye, ear, nose and throat; head and neck; breast; musculoskeletal and neurological systems. Upon completion of this course, students are able to perform and document a comprehensive health assessment.
Prerequisites: BIO 4016, NUR 4920, NUR 4921, NUR 4945.
Corequisites: NUR 4922.

**4956 Health Assessment in Nursing II** **1-3-2**
The second of two health assessment courses. Topics include: assessment of head, neck, breast, neurological, and musculoskeletal systems.
Prerequisites: BIO 4018, NUR 4941, NUR 4943, NUR 4946.
Corequisites: NUR 4954, NUR 4953.

**4963 Perinatal Nursing and Women's Health Issues** **3-6-5**
Nursing care of the childbearing family. Topics include: effective communication with families, women's health and reproductive issues, sexually transmitted infections, and the perinatal experience. Clinical experiences occur in a variety of settings.
Prerequisites: BIO 4018, NUR 4941, NUR 4943, NUR 4946.
Corequisites: NUR 4964.

**4964 Nursing Care of Children** **3-6-5**
Nursing care of the infant through adolescent within the family unit. Topics include: effective communication, developmental issues, childhood illnesses and their impact on the family. Clinical experiences occur in a variety of settings.
Prerequisites: BIO 4018, NUR 4941, NUR 4943, NUR 4946.
Corequisites: NUR 4963.

**4973 Adult Nursing** **6-12-10**
Holistic nursing responses to medical-surgical health problems. Topics include: continuity of care and collaboration. Clinical experiences occur in a variety of acute care settings. Students must complete their elective nursing course prior to entry. Completion of SPE 1022 or SPE 1024 and NUR 9372 or NUR 4993 or NUR 4937 are required for entry.
Prerequisites: NUR 4953, NUR 4954, NUR 4956, NUR 4963, NUR 4964 and completion of communication and nursing electives.

**4981 Transitional Clinical Experience** **0-18-6**
Application of nursing curriculum in a variety of settings. Topics include: care planning, supervision and delegation. Achievement of a predetermined score on a national standardized nursing achievement exam is a requirement for completion. Completion of ENG 1010 or ENG 1003 is required for entry.
Prerequisites: NUR 4973 and completion of communication elective.
Corequisites: NUR 4982.

**4982 Management of Client Care** **6-0-6**
Provision of care for a group of clients in a variety of settings and the transition from the role of student to that of professional nurse. Topics include: role definition, delegation, management, coordination, decision-making, and the Ohio law regulating the practice of nursing. Completion of ENG 1010 or ENG 1003 is required for entry.
Prerequisites: Completion of communication electives, NUR 4973.
Corequisites: NUR 4981.

**4993 Special Topics in Nursing** **1-2-2**
Special topics reflecting dynamic trends in nursing and special client, diagnostic or other related issues.
Prerequisites: BIO 4018, NUR 4941, NUR 4942, NUR 4943, NUR 4946.

**4997 Special Studies in Nursing 1** **Var-Var-Var**
A student-initiated academic pursuit, mutually agreed upon by the student and faculty member, carried on outside the classroom. Before registration, students must have the plan of study approved by a supervising faculty member and the Nursing Program Chair.
Prerequisites: Program chair consent.

**4999 Special Studies in Nursing 2** **Var-Var-Var**
An advanced student-initiated academic pursuit, mutually agreed upon by the student and faculty member. Before registration, students must have the plan of study approved by a supervising faculty member and the Nursing Program Chair.
Prerequisites: Program chair consent.

**9372 Cooperative Education in Nursing Settings** **1-16-2**
Work experience for application of knowledge and skills verified by successful nurse aide state testing. Classroom activities focus on work issues.
Prerequisites: BIO 4018, NUR 4941, NUR 4943, NUR 4946, State Tested Nurse Aide on Ohio Registry.

# OPT Ophthalmic Optics Technology

**6810 Ophthalmic Optics 1** **3-3-4**
Topics include: the electromagnetic spectrum, ultra-violet and infrared radiation, laws of reflection, plain and curved mirrors, laws of refraction and total internal reflection, refraction through prism, refraction at a single spherical surface, refraction through lenses, and cylindrical/toric surfaces.
Prerequisites: MAT 1171.



**6812 Ocular Anatomy and Physiology** **3-3-4**
A course on the structure and function of the eye. Topics include: corneas, tear film, sclera, uveal tract, retinas, optic nervea, lenses, vitreous bodies, eyelids, and orbits.
Prerequisites: None.

**6820 Ophthalmic Optics 2** **3-3-4**
Topics include: thin lens image formation and magnification, multiple lens systems, thick lens equation, lens aberrations, concave and convex mirrors, optical instruments, magnifiers, microscopes and telescopes, characteristics of light, interference, diffraction, and polarization.
Prerequisites: OPT 6810.
Corequisites: MAT 1172.

**6830 Ophthalmic Optics 3** **3-3-4**
Topics include: emmetropia and ametropia of the human eye; spectacle and contact lens corrections, accommodation, and ranges of clear vision; equivalent power, principal planes and vertex distance; and the study of bifocal, sphero-cylindrical and induced prism lenses.
Prerequisites: OPT 6820.

**6831 Ophthalmic Dispensing 1** **2-3-3**
Topics include: basic parts of an ophthalmic frame; types of frames; selection of a style and type of frame for a given prescription; alignment, adjustment, and repair of eye wear; and measurement of interpupillary distance.
Prerequisites: OPT 6820.

**6833 Contact Lenses 1** **3-3-4**
An introduction to the historical development of contact lenses. Topics include: care and handling of various types of contact lenses; instruction on insertion, removal and hygiene; and contact lens materials.
Prerequisites: None.

**6841 Ophthalmic Dispensing 2** **2-3-3**
Topics include: verifying prescription; ordering proper type of lenses; record keeping; lens materials, characteristics, tints and coatings; and fitting bifocal lenses.
Prerequisites: OPT 6831.

**6843 Contact Lenses 2** **3-3-4**
Topics include: techniques of contact lens fitting; fitting rules, wearing schedules, and optics of contact lenses; hard and soft contact lenses.
Prerequisites: OPT 6833.

**6845 Mechanical Optics 1** **3-3-4**
Topics include: surfacing and finishing of spherical and cylindrical lenses; lens power analysis; and surfacing, neutralization, layout, and edging of single vision and multifocal lenses.
Prerequisites: OPT 6820.

**6851 Ophthalmic Dispensing 3** **2-3-3**
Topics include: fitting of cataract lenses, progressive lenses, fitting procedures for special situation dispensing, contact lens dispensing, and after care problems for soft and rigid contact lenses.
Prerequisites: OPT 6841.

Class-Lab-Credit

**6855 Mechanical Optics 2** **3-3-4**
Topics include: prismatic lenses; and surfacing, neutralization, layout, and edging of moderating advanced assignments including cataract, trifocal, prismatic, and other special lenses.
Prerequisites: OPT 6845.

**6857 Ophthalmic Clinical Procedures 1** **3-3-4**
Topics include: case history; visual acuity; refractive errors such as myopia, hyperopia, and astigmatism; retinoscopy; keratometry; and ophthalmometry.
Prerequisites: OPT 6830.

**6867 Ophthalmic Clinical Procedures 2** **3-3-4**
Topics include: low vision and low vision aids, auto-refraction, ophthalmic surgical procedures, tonemetry, the visual field, testing binocular vision, and visual therapy techniques.
Prerequisites: OPT 6857.

**6899 Ophthalmic Special Problems** **Var-Var-Var**
Individual and independent study of special projects pertaining to ophthalmic optics. Open to fifth and sixth term students by special arrangement with the instructor and program chair. Students receive grades of S or U for this course.
Prerequisites: Program chair consent.

# OT Office Technologies

**1850 Computerized Business Applications** **3-2-4**
A course in data processing theory with an emphasis on business applications. Laboratory work includes the operation of PCs, execution of application software, and use of results to increase productivity.
Prerequisites: OT 3007 or keyboarding skill level at 20 wpm.

**1861 Electronic Spreadsheets (Lotus 1-2-3)** **2-2-3**
A course on Lotus 1-2-3 application software. This software combines the benefits of an electronic spreadsheet, a graphics chart generator, and file manager in one integrated package. PC experience and keyboarding recommended.
Prerequisites: DE 0024 or equivalent test score.

**1862 Advanced Electronic Spreadsheets** **2-2-3**
A continuation of BUS 1861. Topics include: macros, command language, advanced data commands, advanced graph commands, transferring files, advanced functions, and Lotus add-ins.
Prerequisites: OT 1861.

**1863 Electronic Spreadsheets (Excel)** **2-2-3**
A course on basic spreadsheet operations, commands, formula writing, functions, and graphing using Microsoft Excel.
Prerequisites: DE 0024 or equivalent test scores.

**1864 Advanced Electronic Spreadsheets (Excel)** **2-2-3**
A course on advanced spreadsheet application concepts using Microsoft Excel. Topics include: three dimensional spreadsheets, advanced formula writing, advanced functions, database construction and manipulation, and introduction to macros.
Prerequisites: OT 1863.

Class-Lab-Credit

**3001 Introduction to Keyboarding/Formatting** **2-3-3**
A beginning keyboarding and formatting course. Topics include: developing accurate keyboarding skills and basic formatting of business letters and memos. Minimum keyboarding speed of 30 words per minute required to continue into OT 3002. If student is keyboarding less than 30 words per minute, enrollment in OT 3006 recommended.
Prerequisites: None.

**3002 Document Formatting 1** **2-3-3**
Topics include: review of keyboard and techniques; improving speed and accuracy; and progress through personal documents, basic business communications, unbound reports, and tables. Student must type at least 30 wpm to enroll in this course. If student is keyboarding less than 30 words per minute, enrollment in OT 3006 is recommended.
Prerequisites: OT 3001.

**3003 Document Formatting 2** **2-2-3**
A course on the development of skills, knowledge, techniques, and problem solving applicable to production keyboarding and composition.
Prerequisites: OT 3002 and/or keyboarding skill level at 40 wpm.

**3006 Keyboarding: Skill Development** **2-3-3**
A keyboarding course for students who have had previous instruction on the computer and know the keyboard, but who have not achieved proficiency in speed and/or accuracy to continue on to OT 3002 or OT 3003.
Prerequisites: Keyboarding knowledge.

**3007 Introduction to Keyboarding** **3-0-3**
A course on keyboarding on computers for students who need to learn basic keyboarding skills.
Prerequisites: None.

**3016 Law Office Procedures** **3-0-3**
A study of legal office procedures. Topics include: the legal structure, the court system, legal terminology, and preparation of legal forms and documents. This course is designed to meet the current needs of the legal professional.
Prerequisites: None.

**3017 Legal Terminology and Transcription** **1-4-3**
A course for legal secretaries on formatting legal correspondence and court documents in the basic areas of law. Topics include: using computers and transcribing machines in a simulated office to prepare legal documents, and learning legal terminology, spelling, grammar and punctuation. Students must know how to use WordPerfect and Microsoft Word.
Prerequisites: None.

**3021 Office Procedures 1** **2-3-3**
An introduction to the development of personal qualities essential to the office worker and the development of principles and procedures fundamental to basic office duties and activities.
Prerequisites: None.

Class-Lab-Credit

**3022 Machine Transcription and Proofreading 2-3-3**
An introduction to machine transcription and proofreading using tapes, dictation equipment, and PCs. Topics include: improving skills in grammar and punctuation, input and formatting, speaking and listening, editing, and decision making.
Prerequisites: OT 3035 and OT 3058 or OT 3059.

**3023 Advanced Machine Transcription and Dictation 2-3-3**
An integrated approach to machine transcription and dictation combined with intensive instruction in English usage and grammar. Topics include: operating dictation/transcription equipment and applying language usage and other skills to the production of various types of written communications.
Prerequisites: OT 3022.

**3024 Office Procedures 3 2-2-3**
Advanced training in office procedures. Topics include: business communications (composing, formatting, transcribing, distributing, filing, grammar, punctuation, and spelling), setting priorities, research and preparation of reports, travel arrangements, meeting, office financial applications, and graphics presentations. Student must be proficient in the use of word processing software.
Prerequisites: OT 3022, OT 3032, OT 3058.

**3032 Office Procedures 2 2-3-3**
A continuation of training in office procedures and human relations principles. Topics include: oral and written office communications; and professional development including self discovery, goal setting, problem solving, decision making, stress management, negotiating, and assertiveness.
Prerequisites: OT 3021.

**3035 Essential Business Correspondence 2-3-3**
An intensive, competency-based business correspondence course. Topics include: grammar, punctuation, proofreading, spelling, vocabulary building, and office correspondence origination. Students must reach an 80% competency level to pass the course.
Prerequisites: ENG 1001.

**3036 Project Management Applications 2-3-3**
A hands-on course that uses Microsoft Project software to develop skills and understanding of the project management process.
Prerequisites: Keyboarding skill level at 20 wpm.

**3058 Microsoft Word for Windows 2-3-3**
A course on the practical application of Microsoft Word for Windows. Students complete hands-on exercises and problems using a PC.
Prerequisites: Keyboarding skill level at 30 wpm.

**3059 WordPerfect for Windows 2-3-3**
A course on the beginning and intermediate capabilities of WordPerfect for Windows. Students prepare documents of varying complexity.
Prerequisites: Keyboarding skill level at 30 wpm.

Class-Lab-Credit

**3062 Database/Spreadsheet Applications 2-3-3**
A course on the basic concepts of database management software using Microsoft Access and of electronic spreadsheet software using Microsoft Excel.
Prerequisites: OT 3001 or keyboarding skill.

**3064 Business Presentation Graphics 2-3-3**
An introduction to the basics of business presentation graphics using Microsoft PowerPoint presentation graphics software. Keyboarding skills required.
Prerequisites: OT 3001.

**3066 Integrated Information Processing 2-3-3**
A course on sharing data between applications using the Microsoft Office Suite which includes word processing, database, spreadsheet, and graphics applications.
Prerequisites: OT 3062, OT 3058, OT 3064, OT 1863, OT 3068.

**3068 Database Management: Access 2-3-3**
A course on database management using Microsoft Access software. Topics include: defining, designing, creating, manipulating, and maintaining a database.
Prerequisites: Keyboarding skill level at 30 wpm.

**3069 Advanced Microsoft Word 2-3-3**
Topics include: advanced character/line formatting; advanced page formatting; advanced document formatting; using templates, macros, frames, pictures, Microsoft Draw, tables, and columns; and merging and sorting documents.
Prerequisites: OT 3058.

**3070 Administrative Office Management 1 3-0-3**
An upper-level office management course that emphasizes managing office environments, employees, systems, and functions.
Prerequisites: MGT 2967.

**3071 Administrative Office Management 2 3-0-3**
A continuation of OT 3070. Topics include: the practical application of managing office environments, employees, systems, and functions.
Prerequisites: OT 3070.

**3073 Microsoft Word Certification 2-2-3**
This course reviews and teaches the skills needed to prepare for Word Expert Level certification. Students learn to format documents with special features; merge documents and sort and select data; work with shared documents; create tables and indexes; record, run, and edit macros; and create fill-in forms.
Prerequisites: OT 3058 and OT 3069.

**3074 Advanced Database Management: Access 2-3-3**
An advanced course on database management using Microsoft Access software. Students use the advanced features of Access to customize, integrate, and automate applications.
Prerequisites: OT 3068 or equivalent.

Class-Lab-Credit

**3075 Advanced PowerPoint 2-2-3**
Topics include: adding visuals to presentations, importing and exporting data, customizing and creating slide shows, creating output and delivering presentations, and linking and embedding objects and files. A course for students with prior knowledge of Microsoft PowerPoint basics; students must be able to work on Microsoft PowerPoint projects with little supervision.
Prerequisites: OT 3064.

**3076 Information Systems for Managers 2-2-3**
A course on basic principles of information systems. Topics include: use of the internet, e-mail, and database software.
Prerequisites: OT 1850.

**3080 Speedwriting 1 2-3-3**
An introduction to speedwriting. Topics include: rapid reading of plate material, mastery of principles of theory including brief forms, and transcribing on the computer from speedwriting notes.
Prerequisites: None.

**3092 Desktop Publishing with Microsoft Publisher 2-2-3**
A course on producing professional-looking documents using the desktop publishing tools in Microsoft Publisher software. Students must be proficient in keyboarding.
Prerequisites: Keyboarding at 30 wpm.

**3095 Introduction to Computers, Windows, Internet 2-3-3**
An introduction to the tools available to perform tasks effectively using Windows and the internet. Students become acquainted with terminology and receive ample hands-on lab time. This course is specifically for new users.
Prerequisites: None.

**3096 Internet/Office Communications 2-2-3**
Topics include: accessing the Web and getting the most from the resources, services, and information available on the Internet; research concepts; e-mail management; and terminology.
Prerequisites: Keyboarding skill level at 20 wpm.

**9227 Cooperative Education Office Technologies 1-40-2**
Students seeking an Associate degree participate in a paid field learning experience related to their degree program. Students must adhere to cooperative education policies and procedures to earn credit. Course may be repeated.
Prerequisites: Admitted to program, 2.0 minimum GPA.

**9247 Cooperative Education Office Technologies-Parallel 1-20-1**
Students seeking an Associate degree participate in a paid field learning experience related to their degree program for a minimum of 20 hours per week. Students must also register for academic course requirements during the same term. Students must adhere to cooperative education policies and procedures to earn credit. Course may be repeated.
Prerequisites: Admitted to program, 2.0 minimum GPA.

Class-Lab-Credit

# OTA Occupational Therapy Assistant

**4600 Introduction to Occupational Therapy 2-3-3**
Topics include: the history, philosophy, and development of the profession, its relationship to other allied health professions, the role and function of the Occupational Therapist and Occupational Therapy Assistant, and team approach. Students observe current practice areas of occupational therapy in community occupational therapy settings.
Prerequisites: Admitted to program.

**4610 Theory of Occupational Therapy 5-0-5**
Topics include: an introduction to the developmental process of human performance; exploration of occupational tasks and roles from birth to death; instruction in age-appropriate balance of work, self-care, play/leisure; introduction to the impact of disease and function in human occupation; and development of the therapeutic use of self.
Prerequisites: OTA 4600.
Corequisites: OTA 4620.

**4611 Occupational Therapy Concepts and Skills - Psychosocial 3-0-3**
The role of occupational therapy in the treatment of adults in a mental health setting. Topics include: development of analysis and observational skills, use of self and group for therapeutic intervention, application of group process, documentation, communication, and interpersonal skills.
Prerequisites: OTA 4612, OTA 4622.
Corequisites: OTA 4621, OTA 4651.

**4612 Occupational Therapy Concepts and Skills - Infants and Children 3-0-3**
The role of occupational therapy in the treatment of children with physical and/or psychological dysfunction. Topics include: normal development, developmental disabilities, the selection of functionally significant, age-appropriate treatment interventions, documentation skills, and the team approach.
Prerequisites: OTA 4610, OTA 4620.
Corequisites: OTA 4622, OTA 4652.

**4613 Occupational Therapy Concepts and Skills - Phys Disabilities 3-0-3**
The role of occupational therapy in the treatment of adults with physical dysfunction including acute care and rehabilitation. Topics include: treatment techniques utilized for various diagnoses, treatment planning and implementation, and documentation skills. Emphasizes adolescence through adulthood.
Prerequisites: OTA 4611, OTA 4621.
Corequisites: OTA 4623, OTA 4633, OTA 4653.

**4614 Occupational Therapy Concepts and Skills - Gerontology 3-0-3**
The role of occupational therapy with the elderly population. Topics include: the aging process and function pertinent to the elderly. Students explore the role of the OT Assistant in non-traditional settings.
Prerequisites: OTA 4613, OTA 4623.
Corequisites: OTA 4624.

Class-Lab-Credit

**4620 Techniques of Occupational Therapy 0-4-2**
The use of crafts and activity as therapeutic modalities in treatment toward function. Topics include: the concepts of activity analysis and therapeutic adaptations, problem-solving, and critical thinking skills.
Prerequisites: OTA 4600.
Corequisites: OTA 4610.

**4621 Occupational Therapy Media - Psychosocial 0-4-2**
Therapeutic intervention for adults in a mental health setting. Topics include: development of leadership skills necessary for a group setting, application of group process and use of purposeful activity and crafts as therapeutic tools, problem solving, and critical thinking skills. Emphasizes adolescence through adulthood.
Prerequisites: OTA 4622.
Corequisites: OTA 4611, OTA 4651.

**4622 Therapeutic Media - Infants and Children 0-4-2**
Therapeutic intervention with infants and children. Topics include: the use of play as a therapeutic tool; evaluation of other occupational performance skills; adaptive equipment; therapeutic techniques for positioning, handling, and feeding; basic developmental screening; problem solving, and critical thinking skills.
Prerequisites: OTA 4620.
Corequisites: OTA 4612, OTA 4652.

**4623 Therapeutic Media for Occupational Therapy-Physical Disabilities 0-4-2**
Therapeutic intervention for physically disabled adults in acute care and rehabilitation settings. Topics include: techniques related to activities of daily living, therapeutic adaptations, orthotics, use of adaptive/assistive equipment, problem solving, and critical thinking skills.
Prerequisites: OTA 4621.
Corequisites: OTA 4613, OTA 4623, OTA 4633. OTA 4653.

**4624 Occupational Therapy Therapeutic Media - Gerontology 0-4-2**
Therapeutic intervention for elderly individuals in a geriatric setting. Topics include: selection of role and age-appropriate occupational performance, use of recreational/leisure activity, application of group process, problem solving, and critical thinking skills. Students explore occupational therapy treatment approaches in non-traditional settings.
Prerequisites: OTA 4623, OTA 4614.

**4625 Survey of Therapeutic Media for Occupational Therapy 0-6-3**
The use of various crafts and activities, cost analysis, and application in various clinical settings. Students develop teaching and in-servicing skills.
Prerequisites: OTA 4624, OTA 4614.
Corequisites: OTA 4631.

**4631 Occupational Therapy Fundamentals Practice 3-0-3**
Topics include: issues concerning licensure, liability, professionalism, continuing education, national registration, and participation in the promotion of occupational therapy. Students prepare for Level II Fieldwork Experience.
Prerequisites: OTA 4614, OTA 4624.
Corequisites: OTA 4625.

Class-Lab-Credit

**4633 Kinesiology for Occupational Therapy 2-2-3**
A study of the movement of body parts, stressing the relationship to rehabilitation therapy.
Prerequisites: OTA 4611, OTA 4621.
Corequisites: OTA 4613, OTA 4623, OTA 4653.

**4635 Static Hand Splinting 0-1-1**
This course prepares students for fieldwork experience as an OTA. Topics include: static hand splint fabrication and use of several forms of splinting media.
Prerequisites: OTA 4600.

**4651 Occupational Therapy Assisting Fieldwork 1 (Level I) 0-9-2**
Directed observation and participation in a community occupational therapy setting. Students must provide proof of current CPR and First Aid.
Prerequisites: OTA 4612, OTA 4622, OTA 4652.
Corequisites: OTA 4611, OTA 4621.

**4652 Occupational Therapy Assisting Fieldwork 2 (Level I) 0-9-2**
Directed observation and participation in a community occupational therapy setting. Students must provide proof of current CPR and First Aid.
Prerequisites: OTA 4610, OTA 4620.
Corequisites: OTA 4612, OTA 4622.

**4653 Occupational Therapy Assisting Fieldwork 3 (Level I) 0-9-2**
Directed observation and participation in a community occupational therapy setting. Students must provide proof of current CPR and First Aid.
Prerequisites: OTA 4612, OTA 4622, OTA 4652.
Corequisites: OTA 4613, OTA 4623.

**4660 Occupational Therapy Assisting Fieldwork 4 (Level II) 0-40-6**
A clinical practicum in occupational therapy settings. An 8-week period of full time work experiences under the supervision of a registered occupational therapy practioner provides the student with in-depth experience in the delivery of occupational therapy services to a variety of ages and conditions.
Prerequisites: Completion of all 46xx level courses and instructor consent.

**4661 Occupational Therapy Assisting Fieldwork 5 (Level II) 0-40-6**
A clinical practicum in occupational therapy settings. An 8-week period of full time work experience under the supervision of a registered occupational therapist provides the student with in-depth experience in the delivery of occupational therapy service to a variety of ages and conditions.
Prerequisites: Completion of all 46xx level courses.

**4670 Creative Activity for Children 2-2-3**
Instruction for the childcare provider in the skills necessary to select, plan, and implement creative activities with children. The course focuses on activities of the child's work in attaining a wide range of skills.
Prerequisites: None.

Class-Lab-Credit

**4680 Introduction to Activities for Geriatrics** **3-2-4**
Topics include: concepts related to health care service that provide diversional activities to geriatric clients, concepts of wellness and illness for geriatric clients, and use of group and individual diversional activity in geriatric settings.
Prerequisites: None.

**4681 Activity Planning for Geriatrics** **3-3-4**
Topics include: concepts of activity analysis and effective program planning, development, and implementation.
Prerequisites: OTA 4680.

**4682 Geriatric Activity Coordinator Practicum** **1-10-2**
A 90-hour supervised practicum experience that provides students with the necessary patient interaction and documentation of experience required for NCCAP-BEC certification.
Prerequisites: OTA 4681.

**4698 Special Studies - OTA** **Var-Var-Var**
A student-initiated academic pursuit, mutually agreed upon by the student and faculty member and carried on outside the classroom. Before registration, the student must have the plan of study approved by a supervising faculty member and the Dean of Health Technologies.
Prerequisites: Instructor consent.

**4699 Special Studies - OTA** **Var-Var-Var**
A student-initiated academic pursuit, mutually agreed upon by the student and faculty member and carried on outside the classroom. Before registration, the student must have the plan of study approved by a supervising faculty member and the Dean of Health Technologies. Students receive grades of S or U for this course.
Prerequisites: Instructor consent.

# PE Physical Education

**4055 Basic Swimming** **0-2-1**
Instruction for students having little or no previous experience. Basic skills to meet requirements for the American Red Cross Learn-to-Swim courses I, II, III.
Prerequisites: Health questionnaire, informed consent.

**4056 Intermediate Swimming** **0-2-1**
Topics include: developing and refining basic swimming strokes, turns, diving and water safety skills. Meets the requirements for the American Red Cross Learn-to-Swim levels IV and V.
Prerequisites: Ability to swim 25 yards on stomach and back and swim in deep water; health questionnaire; informed consent.

**4057 Advanced Swimming** **0-2-1**
Topics include: all styles of swimming, endurance, board diving, speed skills, and safety skills. Meets the requirements for the American Red Cross Learn-to-Swim levels VI and VII.
Prerequisites: Deep water swimming ability and 500 yard continuous swim; health questionnaire; informed consent.

**4062 Water Aerobics** **0-2-1**
Students attain a level of fitness through a variety of resistive and aerobic activities performed in shallow water. No swimming ability is required.
Prerequisites: Health questionnaire, informed consent.

Class-Lab-Credit

**4063 Aerobics** **0-2-1**
Vigorous dance routines and basic exercise forms for cardiovascular conditioning.
Prerequisites: Health questionnaire, informed consent.

**4064 Soccer** **0-2-1**
Topics include: basic skills, techniques and concepts of soccer; rules; terminology; and individual improvement. For men and women.
Prerequisites: Health questionnaire, informed consent.

**4065 Golf** **0-2-1**
Topics include: basic skills, techniques and concepts of golf; rules; terminology; and individual improvement. For men and women.
Prerequisites: Health questionnaire, informed consent.

**4066 Resistance and Cardiorespiratory Training** **0-2-1**
Topics include: techniques for building and retaining muscle mass and techniques for cardio-respiratory training, resulting in a workout for body sculpting, fitness, and good health. Students learn and practice basic exercise principles.
Prerequisites: Health questionnaire, informed consent.

**4067 Basketball** **0-2-1**
Fundamental skills and techniques of basketball. Topics include: dribbling, shooting, passing, team strategy, rules, terminology, and individual improvement. For men and women.
Prerequisites: Health questionnaire, informed consent.

**4068 Volleyball** **0-2-1**
Basic volleyball skills, techniques, concepts, and an appreciation of the sport as a lifetime activity. For men and women.
Prerequisites: Health questionnaire, informed consent.

**4069 Hiking the Local Trails** **0-2-1**
Topics include: the basics of trip planning, conditioning, minimizing environmental impact, safety precautions and equipment needs. Activities include local area hikes, personal goal setting and a related project.
Prerequisites: Health questionnaire, informed consent.

**4070 Advanced Hiking Skills** **1-4-3**
A continuation of PE 4069. Activities include: longer day hiking and backpacking situations, local area hikes, personal goal setting, a related project, and orienting using map and compass.
Prerequisites: PE 4069 or instructor consent, health questionnaire, informed consent.

# PHI Philosophy

**1620 Critical Thinking** **3-0-3**
An introduction to principles of philosophy. Topics include: developing thinking skills used to solve abstract and practical problems, and reviewing standard methods and terminology used to ask philosophical questions (i.e., logic).
Prerequisites: ENG 1001.

**1621 Introduction to Philosophy** **3-0-3**
An introduction to philosophical investigation, covering problems and methods of knowledge, reasoning and morality. Includes survey and analysis of notable Western and Eastern philosophers and their concepts.
Prerequisites: None.

Class-Lab-Credit

**1625 Ethics** **3-0-3**
An introduction to philosophical principles of ethics and moral reasoning. Through reading and research, students develop understanding of how ethics is applied in practical situations. This course emphasizes making practical decisions about issues that have ethical or moral implications, using examples that are related to students' major field of study.
Prerequisites: ENG 1001.

**1630 Comparative World Religions: Asia** **3-0-3**
An introduction to the comparative study of major religions of Asia. Topics include: the historical development, cultural function, and religious traditions of Hinduism, Buddhism, Taoism, Confucianism, Jainism, Shinto and Sikhism.
Prerequisites: ENG 1001.

**1631 Comparative World Religions: Middle East** **3-0-3**
An introduction to the comparative study of the major religions of the Middle East. Topics include: the historical development, cultural function, and religious traditions of Indigenous Religions, Judaism, Christianity, Islam and New Religious Movements.
Prerequisites: ENG 1001.

# PHY Physics

**2220 Automotive Physics** **2-3-3**
A course on mechanics, fluids mechanics and heats as they apply to automobiles. Topics include: the kinematics and dynamics of moving objects including rotational motion and machines, temperature scales, expansion, energy, specific heat of combustion, the gas laws, engines, and refrigerators. Students should take MAT 1161 prior to this course.
Prerequisites: None.

**2221 Technical Physics 1** **2-3-3**
Topics include: basic electricity, circuit building analysis, VOM instruments, and the fundamentals of analog and digital electronics. Students should take MAT 1161 prior to or concurrently with this course.
Prerequisites: None.

**2222 Technical Physics 2** **2-3-3**
Topics include: the kinematics and dynamics of moving objects including rotational motion and machines, pressure, density, the hydraulic lift and Bernoulli's Principle.
Prerequisites: None.

**2223 Technical Physics 3** **2-3-3**
Topics include: the structure of matter, heat, the laws of thermodynamics, energy conversion, engines, ideal gases, properties of waves, sound, electromagnetic waves, and optics. Students need a competency of at least MAT 1191.
Prerequisites: PHY 2222.

**2224 Fire Service Physics** **2-3-3**
Topics include: forces and torque, one and two dimensional kinematics and dynamics, work, energy, power, machines, fluid mechanics, temperature and thermal energy, heat transfer, the gas laws, and the laws of thermodynamics.
Prerequisites: MAT 1161.

Class-Lab-Credit

**2244 Health Physics 1** **3-2-4**
Topics as applied to the health professions include: work, energy, and machines; pressure, forces, volume, temperature, and density; ideal gases; fundamentals of basic electricity, including current, resistance, voltage, power, and safety. Students should take MAT 1105 prior to or concurrently with this course.
Prerequisites: None.

**2270 Introduction to Physics** **2-3-3**
Topics include: fundamentals of physics, laboratory procedures, the controlled experiment, methods of measurement, techniques of data collection and analysis, and interpretation of experimental results.
Prerequisites: None.

**2291 Physics 1 (Algebra and Trigonometry Based)** **3-2-4**
Topics include: measurement, vector quantities, motion on an incline, trajectory motion, acceleration and gravity, Newton's Laws of motion, friction forces, field forces, work, energy and power and circular motion. Students need a competency of at least MAT 1191.
Prerequisites: None.

**2292 Physics 2 (Algebra and Trigonometry Based)** **3-2-4**
Topics include: vector quantities; force addition by scaling and component methods; concurrent equilibrium; non-concurrent equilibrium; impulse, momentum and collisions; rotational motion; mechanical energy and heat energy; specific heat capacity; latent heat; heat transfer; and gas laws. Students need a competency of at least MAT 1191.
Prerequisites: PHY 2291 or PHY 2295.

**2293 Physics 3 (Algebra and Trigonometry Based)** **3-2-4**
Topics include: electromagnetic radiation, nature of light, refraction, geometrical optics, physical optics, spectra, color, photometry, and the basic forces in physics. This course is non-calculus based. Students need a competency of at least MAT 1191.
Prerequisites: None.

**2294 Physics 4 (Calculus-Based)** **3-2-4**
Topics include: the theory of relativity and its modifications of classical physics, atomic and nuclear physics, quantum mechanics, fission, fusion, and cosmology.
Prerequisites: PHY 2297.

**2295 Physics 1 (Calculus-Based)** **4-2-5**
Topics include: measurement, vector quantities, one and two dimensional kinematics and dynamics using Newton's Laws, work, energy, power, impulse, momentum, and the conservation laws.
Prerequisites: None.
Corequisites: MAT 1154 or MAT 1193.

**2296 Physics 2 (Calculus-Based)** **4-2-5**
Topics include: rotational kinematics and dynamics, oscillatory motion, gravity, fluid mechanics, waves, temperature and thermal energy, heat transfer, the gas laws, and the laws of thermodynamics.
Prerequisites: PHY 2295.

**2297 Physics 3 (Calculus Based) 4-2-5**
Topics include: mechanical and electromagnetic waves, electromagnetic radiation and the nature of light, geometrical and physical optics, electric and magnetic fields and their interactions.
Prerequisites: PHY 2296.

**2298 Workshops in Physics Var-Var-Var**
Study of selected topics in physics designed to meet current needs. Content and emphasis vary from year to year.
Prerequisites: None.

# PM Property Management

**2931 Introduction to Property Management 3-0-3**
An introduction to the property management profession and property types. Topics include: economics, planning, owner relations, marketing, lease administration and negotiations, tenant relations, maintenance and construction management, office procedures, and life safety and environment management.
Prerequisites: None.

**2932 On-Site Residential Management 3-0-3**
A continuation of PM 2931. Topics include: practical methods for successful management of property, such as planning, systems and philosophies, personnel and resident policies, accounting and budgeting, legal aspects, insurance, marketing, leasing, sales, maintenance, and energy conservation.
Prerequisites: PM 2931.

**2933 Executive Level Property Management 3-0-3**
Techniques for successful management of property at the executive level. Topics include: objectives of ownership; use of data and statistics; analysis of regions, neighborhoods and markets; cash flow projections and financial analysis; developing and managing apartments, offices, shopping centers, condominiums and cooperatives; and developing the management plan.
Prerequisites: None.

**2935 Property Management Case Study 3-0-3**
Students use the techniques and skills developed in PM 2931, PM 2932, PM 2933, and PM 2934, to create a management plan for a specific property in the Cincinnati area.
Prerequisites: PM 2933.

**2936 Institutional Property Management 3-0-3**
Techniques for successful management of non-traditional housing. Topics include: training in HUD housing, nursing home care, housing for the handicapped, and those facilities providing services for people with special needs.
Prerequisites: PM 2933.

# POL Political Science

**1531 Introduction to American Government 1 3-0-3**
A survey of the American political system at the national level. Topics include: the basis of democratic theory and principles, examination of the Constitution, issues of civil liberties, and citizen rights.
Prerequisites: None.



**1532 Introduction to American Government 2 3-0-3**
A survey of the American political system at the national level. Topics include: structure and function of the legislative, executive, and judicial branches; citizen participation; and interest groups.
Prerequisites: None.

**1533 Introduction to Comparative Governments and Political Systems 3-0-3**
A survey of political systems and structures. Topics include: the relationship between political ideologies and governments; and comparing international examples of alternative structures of executive leadership, legislatures, bureaucracy, and judicial systems.
Prerequisites: POL 1531 or POL 1532.

# PSC Physical Science

**2263 Physical Science for Graphics Communications 4-2-5**
A course on selected topics from chemistry, material science and physics as they are applied in the field of graphics communication. Topics include: chemistry and chemical properties, chemical safety and MSDA forms, material science and mechanical versus characteristic properties, materials testing, physics and physical properties, motion, temperature, waves, and color.
Prerequisites: MAT 1161.

**2264 Astronomy 1 - The Solar System 3-2-4**
A course on the history of astronomy and the instruments used by astronomers. Topics include: how to make observations, planetary evolution, the solar systems, and the nature of light. The course includes lectures, demonstrations and lab experiments. Students need an understanding of algebra.
Prerequisites: None.

**2265 Astronomy 2 - The Universe 3-2-4**
A course on the universe beyond our solar system and the instruments used to observe it. Topics include: stellar evolution, the sun, the Milky Way, galaxies, and other extragalactic objects. The course includes lectures, demonstrations, and lab experiments. Students need an understanding of algebra.
Prerequisites: None.

**2267 Energy 3-2-4**
A course on the different types of energy available throughout history, concentrating on the physics and chemistry involved with each type of energy. Topics include: the efficiency of each type of energy, its environmental impact, and its cost. The course includes lectures, demonstrations, lab experiments, and outside research. Students need an understanding of algebra.
Prerequisites: None.

**2269 Hydrology and Meteorology 3-2-4**
A course on hydrology and meteorology. Topics include: the evolution of the Earth's oceans and streams, the evolution and physics of the atmosphere, and a study of environmental changes. The course includes lectures, demonstrations, and lab experiments. Students need an understanding of algebra.
Prerequisites: None.

Class-Lab-Credit

**2277 Geology** **3-2-4**
A course on geology. Topics include: the evolution of the earth from a historical and physical perspective; the internal and surface mechanisms shaping the Earth's interior and surface; and a study of rocks, minerals, and fossils. The course includes lectures, demonstrations, and lab experiments. Students need an understanding of algebra.
Prerequisites: None.

**2299 Special Studies-Science** **Var-Var-Var**
A personal academic pursuit related to the student's technical field of study mutually agreed upon by the student and supervising faculty member. The Dean of Humanities and Sciences must approve the plan of study prior to registration.
Prerequisites: None.

**6699 Technical Laboratory Problems** **Var-Var-Var**
Special problems, projects, seminars, and individual study assignments pertinent to technical laboratory areas. Arranged with approval of coordinator and Dean of Humanities and Sciences.
Prerequisites: None.

# PSY Psychology

**1502 Human Relations-Applied Psychology** **3-0-3**
A course on applying psychological principles to every day life. These applications help students understand themselves better, change their behaviors, and enhance their relationships. Students participate in structured experiences.
Prerequisites: None.

**1503 Psychology of Deafness** **3-0-3**
A course on the psychological issues of hearing impaired persons. Topics include: personality issues, social adjustment issues, and family dynamics.
Prerequisites: None.

**1505 Introduction to Psychology 1** **3-0-3**
A study of psychology as the scientific study of behavior and mental processes. Topics include: research methods, the biology of behavior, sensation/perception, consciousness, learning, memory, intelligence, motivation, and emotion.
Prerequisites: None.

**1506 Introduction to Psychology 2** **3-0-3**
A continuation of PSY 1505. Topics include: personality, psychological disorders, therapies, development, and social psychology.
Prerequisites: PSY 1505 or equivalent.

**1507 Abnormal Psychology** **3-0-3**
A survey of behavioral, emotional, and mental disorders. Topics include: identification, diagnosis, classification and treatment utilizing the concepts of the DSM-IV-R; past and present views of abnormal behavior; role of medical/psychiatric community; research; and prevention.
Prerequisites: PSY 1506.

**1508 Psychology: Child Development** **3-0-3**
A course on the child's life beginning with genetic and environmental influences. Topics include: the physical, intellectual, language, social, moral, and abnormal growth of the child.
Prerequisites: PSY 1506 or equivalent.

Class-Lab-Credit

**1509 Psychology: Adult Development** **3-0-3**
A course on the principles and theories governing human growth and development from adolescence through aging. Topics include: a comparison of the major contemporary theories, the identity struggle of adolescence, career selection and development, marriage, parenting, mid-life crises, retirement, and death and dying.
Prerequisites: PSY 1506 or equivalent.

**1510 Psychology: Adolescent Development** **3-0-3**
A course on the developmental issues of adolescence. Topics include: self concept, sex roles and identity, hazards such as alcohol and drug abuse, relating to parents and peers, achieving independence, value formation, and choosing and preparing for an occupation.
Prerequisites: PSY 1506 or equivalent.

**1511 Social Psychology** **3-0-3**
A study of the individual within the social environment. Topics include: understanding the social behavior of individuals in interactions with others, social interaction, social influence, perception, attraction, aggression, altruism, and influence.
Prerequisites: PSY 1506.

# PUR Purchasing

**1817 Purchasing** **3-0-3**
Topics include: analysis of buyer behavior in terms of the way a company views the market; techniques that influence institutional buyers, industrial buyers, purchasing agents, and consumers; and the difference between department buyers and purchasing agents.
Prerequisites: None.

**1818 Advanced Purchasing** **3-0-3**
A detailed study of the role of purchasing in the overall operation of company activities. Topics include: relationships between purchasing and other company departments.
Prerequisites: PUR 1817.

**1872 International Purchasing** **3-0-3**
Topics include: the planning and procedures necessary to participate in international purchasing, import/export activities, quotas, and tariff regulations.
Prerequisites: PUR 1818.

**1877 Supply Chain Management** **3-0-3**
Topics include: maximizing return on investment by managing raw materials and finished inventory; and the interrelationship of obtaining materials, working on and storing product, order fulfillment, and customer delivery in both a regular and e-commerce environment.
Prerequisites: None.

**2937 Fundamentals of Resource Planning** **4-0-4**
An introduction to the principles of effective resource planning. Topics include: the concepts of planning of resources at each level, from strategic to tactical. Students work together to solve problems, develop plans, build teams, and present solutions.
Prerequisites: None.

Class-Lab-Credit

**2938 Inventory and Production Control** **4-0-4**
Topics include: essential vocabulary, identifying and applying the basic principles of inventory management, and basic methods of planning and controlling inventory in manufacturing, institutional, distribution, and retail environments.
Prerequisites: None.

**2939 Fundamentals of Manufacturing Control** **4-0-4**
A course on the execution of production plans and master production schedules, reactions to capacity constraints, and maintenance of individual order control. Students learn to deal with priority and capacity management through the use of material requirements planning (MRP), capacity management, capacity requirements planning (CRP), production activity control (PAC), and Just-in-Time (JIT).
Prerequisites: PUR 2937 or PUR 2938.

**2940 Operations Management** **4-0-4**
A course on the design and operations of systems to produce goods and services. Topics include: relationships within the company environment, particularly with marketing and product design; facilities planning; total quality management (TQM); cost analysis; project planning; and operations resource management.
Prerequisites: PUR 2937 or PUR 2938.

# QCC Quality Control Certificate

**6270 Introduction to Statistical Process Control** **3-2-4**
A comprehensive introduction to statistical quality control/process control. Topics include: definitions and philosophies of Deming, ASQ, and others; a review of basic statistics; and SPC techniques/charts including Ishikawa, Pareto, histograms, run charts, and control charts.
Prerequisites: MAT 1179.

**6272 Introduction to Design of Experiments** **3-2-4**
A statistically based course emphasizing Taguchi methods. Topics include: one- and two-sample procedures, analysis of variance, interactions, receptions, randomization, orthogonal arrays, linear graphs, signal-to-noise ratios and computer/graphical techniques.
Prerequisites: MAT 1179.

**6273 Advanced Design of Experiments** **3-2-4**
Topics include: a review of experimental design, correlation, simple linear regression, and multiple regression with an emphasis on selecting and fitting models to data using diagnostic tools. Students develop response surface methods, contour plotting, and process optimization using graphical and analytical (computer) procedures.
Prerequisites: QCC 6272.

**6274 Introduction to Reliability** **3-2-4**
A statistically based approach to reliability emphasizing practical applications. Topics include: reliability definitions, exponential and Weibull models, plotting techniques, confidence intervals, stress-strength, safety factors, FMEA, repairable vs. non-repairable parts and systems, and human factors. Course content is oriented to ASQ Reliability Engineer certification standards.
Prerequisites: MAT 1179.

Class-Lab-Credit

**6275 Introduction to ISO 9000** **3-0-3**
A course on the historical background and development of the ISO 9000 Series Standards. Topics include: requirements and guidelines, establishing a quality management system, documenting and auditing a quality system, analyzing the relationships between ISO 9000 and other continuous improvement systems, the costs involved in becoming certified, and future implications of ISO 9000 on the global marketplace.
Prerequisites: None.

**6276 Implementing ISO 9000 Systems** **3-0-3**
Topics include: preparation for certification, formation of a steering committee, setting a schedule, implementation of a quality system, employee awareness training, the quality system manual, work instructions, and training internal auditors.
Prerequisites: QCC 6275.

**6277 Statistics for Quality 1** **3-2-4**
Topics include: Pareto and Ishikawa charts, histograms, boxplots, scatter plots (correlation and regression), normal distribution, SPC control charts, quality costing, and acceptance sampling. Students develop a working knowledge of these skills although a mastery of statistical methods is not required.
Prerequisites: MAT 1124.

**6278 Statistics for Quality 2** **2-2-3**
Topics include: hypothesis testing, confidence and prediction intervals, ANOVA, experimental design, Taguchi methods, response surfaces, reliability, and FMEA. Students develop a working knowledge of these skills although a mastery of statistical methods is not required.
Prerequisites: QCC 6277.

**6279 Tools & Techniques for Improving Service Quality** **3-0-3**
A course on obtaining clear and accurate information about service quality gaps. Topics include: determining service quality requirements; assessing service perceptions; measurement tools in service; identifying the cause of service quality gaps; tools for determining the cause of service quality gaps; tools for designing, analyzing, and synthesizing data; and reporting service quality measurements.
Prerequisites: None.

**6298 Workshops in Quality Control** **Var-Var-Var**
Study of selected topics in Quality Control designed to meet current needs. Content and emphasis vary from year to year.
Prerequisites: None.

**6299 QC/QA Project** **0-3-1**
Individual study and special projects pertaining to the student's area of concentration. This course is open to students wishing advanced standing or independent study and requires advisor approval.
Prerequisites: None.

# RE Real Estate

**2951 Real Estate Principles & Practices** **4-0-4**
An introduction to real estate economics. Topics include: principles of contracts, civil rights, ethics, financing, brokerage, appraisal, and Ohio practices. This course is required by the State of Ohio prior to taking the sales license exam.
Prerequisites: None.

Class-Lab-Credit

**2953 Real Estate Law** **4-0-4**
A course on law of agency as applied to real estate. Topics include: law of fixtures; estates including leases, conveyancing of real estate, the sales contract, the mortgage, deeds, recording, real estate brokers and managers; license laws of Ohio; civil rights; housing discrimination; desegregation; zoning; cooperatives; and condominiums. This course is required by the State of Ohio prior to taking the sales license exam.
Prerequisites: None.

**2954 Real Estate Finance and Appraisal** **4-0-4**
A course on methodology of financing and appraising residential property. Topics include: types of Ohio lenders; types of conventional and government financing (FHA/VA); an overview of the loan process from qualifying the buyer and property, loan application, documentation, underwriting, closing, servicing and possible foreclosure; and state and federal regulation of real estate finance. Appraisal topics include: theory of appraisal techniques; three basic approaches of appraising: market comparison, cost of replacement, and income capitalization. This course is required by the State of Ohio prior to taking the sales license exam.
Prerequisites: None.

**2956 Real Estate Appraisal 2 - Income Producing Properties** **3-0-3**
Topics include: comprehensive analysis of theory and practical application of preparing an appraisal on investment property, appraisal techniques unique in the area of income producing properties. Students complete a term case study project that provide practical experience in using the income approach.
Prerequisites: RE 2955.

**2959 Real Estate Appraisal 3** **3-0-3**
A course on mathematical problems in analyzing data to arrive at value estimates for income-producing properties. The course outlines the uniform standards of professional practices of the Appraisal Standards Board of the Appraisal Foundation. This course is required prior to taking the State of Ohio Residential and General Appraisal Certification exam.
Prerequisites: RE 2955.

**9229 Cooperative Education Real Estate/Property Mgt.** **1-40-2**
Students seeking an Associate degree participate in a paid field learning experience related to their degree program. Students must adhere to cooperative education policies and procedures to earn credit. Course may be repeated.
Prerequisites: Admitted to program, 2.0 minimum GPA.

**9249 Cooperative Education Real Estate/Property Mgt. - Parallel** **1-20-1**
Students seeking an Associate degree participate in a paid field learning experience related to their degree program for a minimum of 20 hours per week. Students must also register for academic course requirements during the same term. Students must adhere to cooperative education policies and procedures to earn credit. Course may be repeated.
Prerequisites: Admitted to program, 2.0 minimum GPA.

Class-Lab-Credit

# RT Respiratory Care

**4701 Respiratory Care Science 1** **3-2-4**
Topics include: physics; concepts of pressure, flow, and gas laws as they relate to the field of respiratory care; patient assessment; an introduction to common pulmonary diseases; and procedures, equipment, and assessment relating to oxygen therapy and humidity therapy.
Prerequisites: PHY 2244, BIO 4014, MAT 11XX, MCH 4805, 2.5 minimum GPA.
Corequisites: RT 4720.

**4702 Respiratory Care Science 2** **3-3-4**
A continuation of RT 4701. Topics include: respiratory care procedures; assessment; use of equipment involved in aerosol therapy, hyperventilation therapy, chest physiotherapy, non-invasive monitoring and other procedures related to routine care; and pharmacology applicable to the respiratory care patient.
Prerequisites: RT 4701, RT 4720, BIO 4015.
Corequisites: RT 4711.

**4703 Respiratory Care Science 3** **3-2-4**
A continuation of RT 4702. Topics include: X-rays, infection control, positive pressure, non-invasive devices, airway management, manual resuscitators, oxygen analyzers, and hyperbaric oxygenation.
Prerequisites: RT 4702, RT 4711, BIO 4016, BIO 4009.
Corequisites: RT 4712, RT 4718.

**4704 Respiratory Care Science 4** **4-3-5**
A continuation of RT 4703. Topics include: respiratory care of the critically ill patient including the assessment, equipment, monitoring, and care of the mechanically ventilated patient.
Prerequisites: RT 4703, RT 4712, RT 4718.
Corequisites: RT 4713, RT 4719.

**4705 Respiratory Care Science 5** **3-2-4**
A continuation of RT 4704. Topics include: equipment maintenance, quality control, interpretation and testing protocols for performing pulmonary function testing at the bedside and in the laboratory, and pulmonary care of the newborn and pediatric patient.
Prerequisites: RT 4704, RT 4713, RT 4719.

**4706 Respiratory Care Science 6** **5-0-5**
A continuation of RT 4705. Topics include: hemodynamic monitoring and cardiopulmonary pharmacology of the critically ill patient, care of the trauma patient, and a review of principles of cardiopulmonary physiology.
Prerequisites: RT 4714, RT 4705.

**4707 Respiratory Care Science 7** **3-0-3**
A continuation of RT 4706. In depth study of specialized areas of respiratory care including: pulmonary rehabilitation, pulmonary function testing, and sleep studies. These areas are subject to change each year to correspond to the changing job description of the Respiratory Therapist.
Prerequisites: RT 4706, RT 4714.
Corequisites: RT 4715, RT 4020.

Class-Lab-Credit

**4711 Respiratory Care Clinical Practice 1** **0-9-1**
Topics include: an introduction to the hospital environment with practical application of oxygen delivery systems, aerosol therapy, incentive spirometry, patient positioning, and patient assessment.
Prerequisites: RT 4701, RT 4720.
Corequisites: RT 4702.

**4712 Respiratory Care Clinical Practice 2** **0-9-1**
Topics include: practical application of IPPB, humidity, aerosol therapy, chest physiotherapy, and incentive spirometry.
Prerequisites: RT 4702, RT 4711, BIO 4016, BIO 4009.
Corequisites: RT 4703, RT 4718.

**4713 Respiratory Care Clinical Practice 3** **0-17-3**
A continuation of RT 4712. Topics include: airway management, sterilization of equipment, introduction to ventilator care, and the operating room.
Prerequisites: RT 4703, RT 4712, RT 4718.
Corequisites: RT 4704, RT 4719.

**4714 Respiratory Care Clinical Practice 4** **0-22-4**
A clinical practicum in all phases of respiratory care. Emphasizes patients requiring mechanical ventilation. Includes special rotations in pulmonary functions, equipment, and pediatrics.
Prerequisites: RT 4713, RT 4719, RT 4704.

**4715 Respiratory Care Clinical Practice 5** **0-18-3**
Application of advanced respiratory care techniques. Emphasizes patients in the critical care setting. Includes specialized areas of practice and use of computerized clinical simulations.
Prerequisites: RT 4706, RT 4714.
Corequisites: RT 4707, RT 4020.

**4716 Respiratory Care Clinical Practice 6** **0-20-3**
A continuation of RT 4715.
Prerequisites: RT 4707.

**4718 Pulmonary Diseases 1** **3-0-3**
An in-depth study of pulmonary disease. Topics include: pathophysiology, diagnosis and treatment. The course emphasizes the role of respiratory therapy in managing patients with pulmonary disease.
Prerequisites: RT 4702, RT 4711, BIO 4016.
Corequisites: RT 4703, RT 4712.

**4719 Pulmonary Diseases 2** **3-0-3**
A continuation of RT 4718. Topics include: diseases of the heart, trauma, and neurological conditions affecting the pulmonary system.
Prerequisites: RT 4718, RT 4703, RT 4712.
Corequisites: RT 4704, RT 4713.

**4720 Cardiopulmonary Anatomy & Physiology** **4-2-5**
A course on detailed anatomy and physiology of the respiratory and circulatory systems. Emphasizes topics relevant to respiratory therapy: ventilation, diffusion, oxygen and carbon dioxide transport, red cell physiology, and acid-base balance.
Prerequisites: Admitted to the Respiratory Care program, BIO 4014.
Corequisites: RT 4701.

Class-Lab-Credit

**4723 Respiratory Care Seminar** **2-2-3**
Topics include: a discussion of special issues pertaining to the field of respiratory care and preparation for the national credentialing exams.
Prerequisites: RT 4707.
Corequisites: RT 4716.

**4794 Workshops in Respiratory Therapy** **Var-Var-Var**
Selected issues and topics in the respiratory therapy area designed to meet current needs. Content and emphasis vary from year to year.
Prerequisites: None.

**4795 Workshop in Respiratory Therapy 2** **Var-Var-Var**
Selected issues and topics in the respiratory therapy area designed to meet current needs. Content and emphasis vary from year to year.
Prerequisites: None.

**4798 Special Studies - Respiratory Care** **Var-Var-Var**
A student-initiated academic pursuit, mutually agreed upon by the student and faculty member and carried on outside the classroom. Before registration the student must have the plan of study approved by a supervising faculty member and the Dean of Health Technologies.
Prerequisites: Instructor consent.

**4799 Special Studies - Respiratory Care** **Var-Var-Var**
A student-initiated academic pursuit, mutually agreed upon by the student and faculty member and carried on outside the classroom. Before registration the student must have the plan of study approved by a supervising faculty member and the Dean of Health Technologies. Students receive grades of S or U for this course.
Prerequisites: None.

**9376 Parallel Cooperative Education - Respiratory Care** **1-20-1**
Respiratory Care students participate in a part-time paid field learning experience while completing other program requirements. This experience provides an opportunity to apply knowledge and skills acquired in classes. Students must adhere to the Health Technologies Division Student Handbook and program requirements.
Prerequisites: Admitted to program, coordinator consent, 2.0 minimum GPA.

**9386 Internship - Respiratory Care** **1-20-1**
Student participate in an unpaid field learning experience l6 to 20 hours per week. Students must adhere to the Health Technologies Division Student Handbook and program requirements.
Prerequisites: Admitted to program, coordinator consent, 2.0 minimum GPA.

# SLT Scientific Lab Technology

**9600 Cooperative Education - Scientific Laboratory 1-40-2**
Usually on an alternating term basis, Scientific Lab Technology students participate in a full-time (32 to 40 hours per week) field learning experience that relates to their class work. With each succeeding co-op term, students assume more responsibility and perform higher level duties. Students must adhere to Scientific Lab Technology co-op policies and procedures to earn credit.
Prerequisites: None.

**9610 Parallel Cooperative Education - Scientific Laboratory 1-20-1**
Scientific Technology students participate in a part-time (20 to 32 hours per week) field learning experience that relates to their class work. With each succeeding co-op term, students assume more responsibility and perform higher level duties. Students must adhere to Scientific Lab Technology co-op policies and procedures to earn credit.
Prerequisites: None.

# SOC Sociology

**1270 Introduction to Social Work 3-0-3**
An introduction to the social welfare institution and the field of social work. Topics include: a core of concepts, skills, and activities to prepare for the profession. Students obtain a beginning level of knowledge and value orientation to pursue a career in social work.
Prerequisites: SOC 1521.

**1271 Social Welfare and Policies 3-0-3**
An introduction to the historical development and organization of social welfare policy. Topics include: analysis and evaluation of policy effectiveness and impact on populations, particularly minorities.
Prerequisites: SOC 1270.

**1272 Social Problems 3-0-3**
An overview and systematic study of major social problems in modern society using various sociological methods and theories. Topics include: ageism, poverty, urban life, racism, violence, and crime.
Prerequisites: SOC 1521.

**1273 Drugs in Society 3-0-3**
An introduction to issues of use and abuse of drugs and alcohol in today's society. Topics include: prevention, early intervention, and treatment programs.
Prerequisites: None.

**1520 Orientation to Deafness 3-0-3**
A course on the culture of the American Deaf community. Topics include: the education and legal status of the community and the philosophical and political forces affecting the hearing impaired.
Prerequisites: None.

**1521 Introduction to Sociology 1 3-0-3**
A course on sociology as a science occupied with classifying and defining group behavior. Topics include: the basic institutions necessary to the processes of socialization and acculturation.
Prerequisites: None.

Class-Lab-Credit

**1523 Introduction to Sociology 2 3-0-3**
A course on the five major social institutions in society: the family, religion, education, the economy, and government.
Prerequisites: SOC 1521.

**1524 Stress Management 3-0-3**
A course on theory and coping techniques for use in dealing with physical, social, and psychological stressors. Topics include: nutrition, time management, and assertiveness. Students practice relaxation techniques in class.
Prerequisites: None.

**1525 Changing Roles for Men and Women 3-0-3**
An interdisciplinary course on the processes through which sex roles develop. Topics include: the ways in which sex roles affect individuals and society and analysis of changing sex role patterns in the U.S. and elsewhere.
Prerequisites: 3 hours of psychology or sociology.

**1526 Sociology: Marriage and The Family 3-0-3**
A course on the social institutions of marriage and the family. Topics include: the historical perspective of marriage, male and female roles, society's impact on marital roles, and the impact of the family on the individual.
Prerequisites: SOC 1521.

**1528 The African-American Family 3-0-3**
A course using a sociological approach to examine issues that confront contemporary African-American families. Topics include: the realities, myths, structures, and dynamics that surround and affect today's African-American family; historical background; male/female and parent/child relationships; social, economic, health, and lifestyle issues; public policy issues; and the role of the church in the community.
Prerequisites: SOC 1526.

# SPB Spanish for Business

**1077 Spanish 1 for Business and Finance 4-0-4**
Students learn and practice vocabulary for business, finance, and business travel.
Prerequisites: None.

**1078 Spanish 2 for Business and Finance 4-0-4**
A continuation of SPB 1077. Students learn and practice vocabulary for business, finance, and business travel.
Prerequisites: SPB 1077.

**1079 Spanish 3 for Business and Finance 4-0-4**
A continuation of SPB 1078. Students learn and practice vocabulary for business, finance, and business travel.
Prerequisites: SPB 1078.

# SPE Speech

**1020 Public Speaking 3-0-3**
A course on the preparation and effective delivery of various types of speeches. Topics include: improved listening techniques, audience participation, and evaluation.
Prerequisites: ENG 1001.

Class-Lab-Credit

**1022 Professional Presentations** **2-2-3**
A course on preparation and delivery of oral presentations for business and professions. Topics include: analysis, management, styles, and evaluation of various forms of presentational communication. Includes a variety of interpersonal, group, and public communication situations using audio or visual aids.
Prerequisites: ENG 1001.

**1024 Group Dynamics & Problem Solving** **3-0-3**
A course on understanding peoples' roles as communicators, improving small group communication skills, developing problem-solving strategies as group members and applying theories to work (i.e. Quality circles) and personal relationships.
Prerequisites: None.

**1027 Team Building and Group Facilitation** **3-0-3**
Topics include: group presentations, team building, group development, and team/meeting facilitation. Students work together in problem-solving teams and present team project results. Successful completion of SPE 1024 or experience working with groups is recommended.
Prerequisites: None.

# SPN Spanish

**1076 Spanish Conversation and Composition** **2-0-2**
A course to increase proficiency in Spanish. Emphasis on conversational and written Spanish through interviews, discussion of articles, role-plays, communicative games and watching and discussing Spanish TV.
Prerequisites: SPN 1081 or spoken proficiency

**1080 Elementary Spanish 1** **4-0-4**
An introduction to the Spanish language, providing a foundation for understanding, speaking, reading, and writing Spanish. Topics include: fundamentals of Spanish intonation, grammar, and syntax. Laboratory work may be required.
Prerequisites: None.

**1081 Elementary Spanish 2** **4-0-4**
A continuation of SPN 1080, providing a foundation for understanding, speaking, reading, and writing Spanish. Topics include: fundamentals of Spanish intonation, grammar, and syntax; and advanced readings. Laboratory work may be required.
Prerequisites: SPN 1080 or 1 year high school Spanish or equivalent.

**1082 Elementary Spanish 3** **4-0-4**
A continuation of SPN 1081, providing a foundation for understanding, speaking, reading, and writing Spanish. Topics include: fundamentals of Spanish intonation, more complex grammar, syntax, more advanced readings, and basic composition. Laboratory work may be required.
Prerequisites: SPN 1081 or 2 years high school Spanish or equivalent.

Class-Lab-Credit

**1083 Intermediate Spanish 1** **4-0-4**
Review and extension of basic principles of grammar and syntax through composition and conversation, stressing fluency. Topics include: more advanced reading, composition, and short literary pieces. Laboratory work may be required.
Prerequisites: SPN 1082 or 3 years high school Spanish or equivalent.

**1084 Intermediate Spanish 2** **4-0-4**
Continued review and extension of principles of grammar and syntax through composition and conversation, stressing fluency. Topics include: more advanced reading, composition, and longer literary pieces. Laboratory work may be required.
Prerequisites: SPN 1083 or equivalent.

**1085 Intermediate Spanish 3** **4-0-4**
Continued review and extension of principles of grammar and syntax through composition and conversation, stressing fluency. Topics include: more advanced reading, composition, and longer literary pieces. Laboratory work may be required.
Prerequisites: SPN 1084 or equivalent.

# SSC Social Sciences

**1598 Topics in Social Sciences** **Var-Var-Var**
A study of selected topics in the social sciences, which may be drawn from one field within the social sciences or may be interdisciplinary. Content and emphasis vary from term to term.
Prerequisites: None.

**1599 Special Problems in Social Science** **Var-Var-Var**
Individual study and special projects pertaining to one or more areas of the social sciences. Open to students wishing to conduct independent study and/or research. Enrollment requires prior approval of the supervising instructor and the Dean of Humanities and Sciences.
Prerequisites: None.

# ST Surgical Technology

**4505 Introduction to Surgery 1** **5-0-5**
Topics include: the development of modern-day surgery; orientation to the organization of a hospital, the OR department, and roles of OR personnel; care of the surgical patient and the process of formulating surgical patient care plans; infection control applicable to the operative setting including disinfection and sterilization of surgical supplies; sterile techniques and their application in the OR; and basic legal aspects of OR practice.
Prerequisites: Admitted to technical courses of ST program.

**4506 Introduction to Surgery 2** **5-0-5**
Topics include: special equipment used in the operating room such as lasers, endoscopes, sponges, needles, and surgical instruments; general and regional anesthesia, and wound healing, sutures, and surgical staplers.
Prerequisites: ST 4505.
Corequisites: ST 4541.

Class-Lab-Credit

**4531 General Surgery 1** **5-0-5**
An introduction to general surgery operative procedures. Topics include: upper gastrointestinal, laparotomy, and hernia procedures of the abdominal region; steps of the procedures; hemostasis; operative drains; specimens; layers of the abdominal wall; and abdominal incisions.
Prerequisites: ST 4506.
Corequisites: ST 4542.

**4532 General Surgery 2** **5-0-5**
Topics include: lower gastrointestinal procedures, breast surgery, gynecological operative procedures, obstetrical procedures, and plastic/reconstructive surgery.
Prerequisites: ST 4531.
Corequisites: ST 4543.

**4533 Surgical Specialties 1** **5-0-5**
Topics include: surgical specialty operative procedures such as ophthalmic, genitourinary, and orthopedic.
Prerequisites: ST 4532.

**4534 Surgical Specialties 2** **5-0-5**
Topics include: introduction to neurosurgery procedures; pediatric procedures; head and neck procedures; and ear, nose, and throat surgery.
Prerequisites: ST 4533.
Corequisites: ST 4551.

**4535 Surgical Specialties 3** **5-0-5**
Topics include: introduction to oral surgery (including maxillofacial operative procedures), perivascular, thoracic, cardiac, and transplant surgery.
Prerequisites: ST 4534.
Corequisites: ST 4552.

**4538 Surgical Technology Seminar** **3-0-3**
A comprehensive review of surgical technology.
Prerequisites: ST 4534.

**4541 ST Surgery Lab** **0-3-1**
Topics include: patient transportation and transfer skills, attachment of surgical bed accessories, patient positioning, operation of electrosurgery and suction, and dispensing supplies to the sterile field.
Prerequisites: ST 4505.
Corequisites: ST 4506.

**4542 ST Clinical & Lab Integration 1** **1-6-3**
A course consisting of clinical and lab components, including a weekly seminar. Clinical topics include: performing beginning-level circulating skills on a surgical patient. On-campus lab topics include: skin preparation, urinary catherization, surgical scrub, gowning, and gloving skills.
Prerequisites: ST 4506, ST 4541.

**4543 ST Clinical & Lab Intregration 2** **0-7-3**
A course consisting of clinical and lab components. Clinical topics include: performing beginning level scrub skills learned in ST 4542. On-campus lab topics include: development of additional scrub skills to progress students into the scrub role.
Prerequisites: ST 4542.

Class-Lab-Credit

**4544 Introduction to Clinical Practice** **0-6-2**
Students perform all previously learned scrub skills during assigned operative procedures at an affiliated hospital and practice instrumentation skills required for each step of the procedure. Employability skills of students will be evaluated.
Prerequisites: ST 4543.

**4551 ST Clinical Practice 1** **0-25-5**
Practical application of previously learned surgical skills at an assigned affiliate hospital. Students demonstrate basic competency in scrub skills relating to general and gynecological operative procedures. Students must attend a one-hour weekly seminar on campus relating to the field experience.
Prerequisites: BIO 4016, ST 4544.

**4552 ST Clinical Practice 2** **0-25-5**
A course on specialty operative procedures. Students rotate, as needed, to another affiliate hospital for OB experience and pediatric experience. Students must attend a one-hour weekly seminar on campus relating to the field experience.
Prerequisites: ST 4551.

**4553 ST Clinical Practice 3** **0-25-5**
A continuation of ST 4552. Students must attend a one-hour weekly seminar on campus relating to the field experience.
Prerequisites: ST 4552.

**4570 First Assisting in Operating Room 1** **3-0-3**
An introduction to the First Assisting curriculum. Topics include: role of the First Assistant; ethical, moral, and legal responsibilities; principles of asepsis and infection control; anesthesia methods and agents; and potential surgical hazards and appropriate action.
Prerequisites: None.

**4571 First Assisting in Operating Room 2** **3-0-3**
Topics include: a brief review of basic anatomy and physiology, and surgical anatomy and physiology related to specific surgical interventions. The material is presented in a surgical procedure format instead of a body system format.
Prerequisites: ST 4570.

**4572 First Assisting in Operating Room 3** **3-0-3**
Fundamental skills needed to practice as a First Assistant. Topics include: positioning, prepping, draping, application of pneumatic tourniquets, safe tissue handling, methods of providing wound exposure and hemostasis, suturing, knot tying, endoscopy, wound dressing, drains, and casting techniques.
Prerequisites: ST 4571.

**4579 First Assisting in OR - Clinical Practice** **0-10-3**
Students practice manual and behavioral skills in the surgical setting of area hospitals under the preceptorship of surgeons and/or First Assistants within five specialties. Required cases - 100.
Prerequisites: ST 4572.

Class-Lab-Credit

**4580 Central Service Technology 1** **5-0-5**
Technical functions of Central Service as they relate to providing quality patient care items. Topics include: packaging materials; methods of sterilization; preparation of sterile solutions; quality assurance; and care, handling, and processing of surgical instruments and supplies.
Prerequisites: MCH 4000, ST 4590.
Corequisites: ST 4585.

**4581 Central Service Technology 2** **5-0-5**
Topics include: total quality management, risk management, case cart development, regulatory agencies, material management concepts, information technology, human relations, and trends in Central Service.
Prerequisites: ST 4580.
Corequisites: ST 4586.

**4584 Introduction to CS Clinical Practice** **1-10-2**
An introduction to the Central Service environment at an affiliate hospital. Technical skills integrated with didactic concepts are performed. Students must attend a one-hour weekly seminar on campus relating to the field experience.
Prerequisites: None.
Corequisites: ST 4590.

**4585 Central Service Clinical Practice 1** **1-15-3**
Students rotate through the functional areas of a Central Service department and gain additional technical skills with a focus on quality patient services. Students must attend a one-hour weekly seminar on campus relating to the field experience.
Prerequisites: ST 4584.

**4586 Central Service Clinical Practice 2** **1-15-3**
A continuation of ST 4585. Students continue to perform highly technical functions in each area of a Central Service department. Students must attend a one-hour weekly seminar on campus relating to the field experience.
Prerequisites: None.

**4590 Introduction to Central Service** **5-0-5**
An introduction to the field of Central Service and its role in the hospital environment. Topics include: microbiology and infection control applicable to the Central Service discipline, decontamination procedures, disinfection, and anatomy and physiology.
Prerequisites: DE 0011 or college level reading ability.
Corequisites: MCH 4000.

**4592 Principles of Material Management in Health Care 1** **3-0-3**
An introductory course on material management operations in today's health care environment. Topics include: organizational structure, inventory management, systems operation, distribution, and product standardization.
Prerequisites: None.
Corequisites: ST 4590.

Class-Lab-Credit

**4593 Principles of Material Management in Health Care 2** **3-0-3**
A continuation of ST 4592. Topics include: purchasing and procurement procedures, total quality management, operational functions, financial management, and legal issues applicable to material.
Prerequisites: ST 4592.
Corequisites: ST 4580.

**4594 Fundamentals of Operating Room Practice** **3-2-4**
Provides nurses with a basic foundation for OR practice. In lab, students learn beginning level skills performed by the scrub and the circulation nurse.
Prerequisites: Previous coursework in anatomy, microbiology.

**4598 Special Studies - Surgical Technology** **Var-Var-Var**
A student-initiated academic pursuit, mutually agreed upon by the student and faculty member and carried on outside the classroom. Before registration, the student must have the plan of study approved by a supervising faculty member and the Dean of Health Technologies.
Prerequisites: Instructor consent.

**4599 Special Studies - Surgical Technology** **Var-Var-Var**
A student-initiated academic pursuit, mutually agreed upon by the student and faculty member and carried on outside the classroom. Before registration, the student must have the plan of study approved by a supervising faculty member and the Dean of Health Technologies. Students receive grades of S or U for this course.
Prerequisites: None.

# TC Technical Communication

**5001 Introduction to Communication Careers** **2-0-2**
An introduction to career requirements and options for various communication professions. Topics include: orientation to educational requirements; career interest assessment; interviews with professionals; directed research, reading and writing; and development of a resume and work portfolio. Required for students seeking the Technical Communication degree and open to any students interested in communication fields such as multimedia design, journalism, broadcasting, public relations, or publishing.
Prerequisites: None.

**5010 Visual Literacy** **2-2-3**
A study of visual elements that support and affect print and multimedia communication products and processes. Topics include: perception and interpretation of visual messages, fundamentals of page and graphical user interface (GUI) design, selection and use of informational graphics, selection and use of typography, and use of color. Competency with word processing software is strongly recommended.
Prerequisites: None.

**5020 Usability Assessment** **2-2-3**
An introduction to principles and techniques of human factors analysis, information design, and usability testing. Students apply these principles to a variety of products with emphasis on computer multimedia products. Competency in basic computer applications software is strongly recommended.
Prerequisites: TC 5010.
Corequisites: IT 5453.

Class-Lab-Credit

**5022 Technical Presentations** **2-2-3**
Study and practice of various forms of public communication for technical, business, and professional environments. Topics include: assessing interpersonal, group, and public communication situations; analyzing, organizing, selecting, and evaluating communication methods; writing and designing presentation materials, including a variety of presentation media.
Prerequisites: ENG 1001 or ENG 1018.

**5032 Developing Instructional Materials** **3-2-4**
A course on developing print and multimedia instructional materials for varied audiences. Topics include: requirements and restraints of the instructional process, audience analysis, elements of the writing process for expository and instructional prose, and designing instructional materials. Competency in word processing, desktop publishing, and basic website design is strongly recommended. Multimedia Information Design students must successfully complete all English Composition requirements before enrolling in this class.
Prerequisites: ENG 1019 or Technical Communication program chair consent.

**5033 Developing Promotional Materials** **3-2-4**
A course on developing print and multimedia promotional materials for varied audiences. Topics include: assessing promotional and marketing communication environments; audience analysis; writing expository, persuasive, and promotional prose; and designing promotional communication materials. Competency in word processing, desktop publishing, and basic website design is strongly recommended. Multimedia Information Design students must successfully complete all English Composition requirements before enrolling in this class.
Prerequisites: ENG 1019 or Technical Communication program chair consent.

**5037 Writing and Designing Newsletters** **2-2-3**
A course on essential aspects of newsletter preparation. Topics include: fundamentals of journalism; techniques for writing news and feature stories; planning publication content; developing effective designs for print and online newsletters; and business and legal issues that affect newsletter writing and production. Students use desktop publishing software to prepare newsletters.
Prerequisites: ENG 1001 or ENG 1018, and IT 5116, IT 5456, or GC 1422.

**5041 Technical Editing Methods 1** **2-2-3**
A course on concepts and techniques essential to the editorial process for print and multimedia products. Topics include: editorial roles and behaviors, the editorial assessment process, editor/author relationships, levels of edit, proofreading and copy marking, and stylebooks and resource materials. Competency in word processing, desktop publishing, and basic website design is strongly recommended. Multimedia Information Design students must successfully complete all English Composition requirements before enrolling in this class.
Prerequisites: ENG 1019 or Technical Communication program chair consent.

Class-Lab-Credit

**5042 Technical Editing Methods 2** **2-2-3**
A continuation of TC 5041. Topics include: expanding editorial roles and responsibilities, editing large and complex materials, and performing special editorial tasks such as preparing abstracts and indexes.
Prerequisites: TC 5041.

**5071 Technical Communication Project** **3-2-4**
Students complete a technical communication project for a print and/or multimedia product that requires audience, client, and market analysis; design, development, and production of content; and usability testing. Students present project results.
Prerequisites: Successful completion of all Technical Communication program core courses.

**5089 Technical Communication Seminar: Portfolio Presentation** **2-3-3**
Each student prepares a professional portfolio that describes academic and work achievements. Students present their portfolios to a panel of professional technical communicators who assess student preparation for professional employment. Students are expected to spend significant time outside of scheduled course sessions to complete their portfolios. Conferences with the instructor are required.
Prerequisites: Successful completion of all TC core courses.

**5098 Workshop in Technical Communication** **Var-Var-Var**
Group study and discussion of selected topics in technical communication. Course content and emphasis may vary from year to year.
Prerequisites: None.

**5099 Special Problems in Technical Communication** **Var-Var-Var**
Individual studies and special projects pertaining to technical communication are assigned to students who are seeking advanced standing or implementing independent research or specialized technical communication projects. Enrollment requires prior approval of TC Program Chair and Dean of Information Technologies. May be repeated for credit.
Prerequisites: None.

# TET Telecommunications Engineering Technology

**7743 Analog Communications 1** **3-2-4**
An introduction to radio communications theory. Topics include: the transmission and reception of amplitude and frequency modulated radio signals and fundamentals of noise and radio wave propagation. Students design and build working transmitters and receivers as laboratory exercises. This course prepares students to pass the technical portion of the FCC Amateur Radio License Examination and FCC General Radio Operators Exam.
Prerequisites: EET 7730.

**7762 Telecommunications 1** **2-3-3**
An introduction to basic telephone systems. Topics include: telecommunication history, the operation of the basic telephone set, local offices, telephone switching concepts, analog and digital signal transmission, local loops, and interoffice trunk lines.
Prerequisites: (EET 7701 or EET 7710) and (CPET 7705 or EET 7707 or CPET 7728).

**7772 Telephony 1** **2-3-3**
A course on large enterprise telephone systems and the connection to local carriers. Topics include: PBX systems, integration of phone and computer networks, setup and troubleshooting of integrated phone-computer networks, and on-site customer equipment needed to connect to local carriers for ISDN, T1, T3, and fiber service.
Prerequisites: CPET 7738, CPET 7762.

**7773 Wireless Communications** **3-2-4**
A course on the basics of wireless communications, cellular systems and personal communication systems (PCS) including various national and international standards. Topics include: speech encoding and modulation techniques, cellular system operation and design concepts, antenna and satellite concepts, signal propagation, multiple access concepts and applications, and wireless LAN concepts.
Prerequisites: IT 5151, TET 7743.

# THE Theater

**1670 Theater Appreciation** **3-0-3**
Study of theater as a mode of human expression. Topics include: developing awareness as an audience member; script analysis, acting styles, directing and design elements, and how these elements contribute to a successful production. Attendance at one live production during the term is required.
Prerequisites: None.

**1671 History of the Theater** **3-0-3**
A study of the history of western theater from classical antiquity through contemporary times that explores each period's contribution to modern theatrical practices. Course work includes regular written assignments and out-of-class screenings of plays from various periods.
Prerequisites: 6 credits of English composition

# TWE Technical Writing & Editing

**TWE 5001 = TC 5001 Introduction to Communication Careers**

**TWE 5010 = TC 5010 Visual Literacy**

**TWE 5022 = TC 5022 Technical Presentations**

**TWE 5032 = TC 5032 Developing Instructional Materials**

**TWE 5033 = TC 5033 Developing Promotional Materials**

**TWE 5035 = IT 5453 Web Development 1: HTML**

**TWE 5036 = IT 5454 Web Development 2: HTML & Java Script**

**TWE 5037 = TC 5037 Writing and Designing Newsletters**

**TWE 5038 = IT 5471 Web Design Project**

**TWE 5041 = TC 5041 Technical Editing Methods 1**

**TWE 5042 = TC 5042 Technical Editing Methods 2**

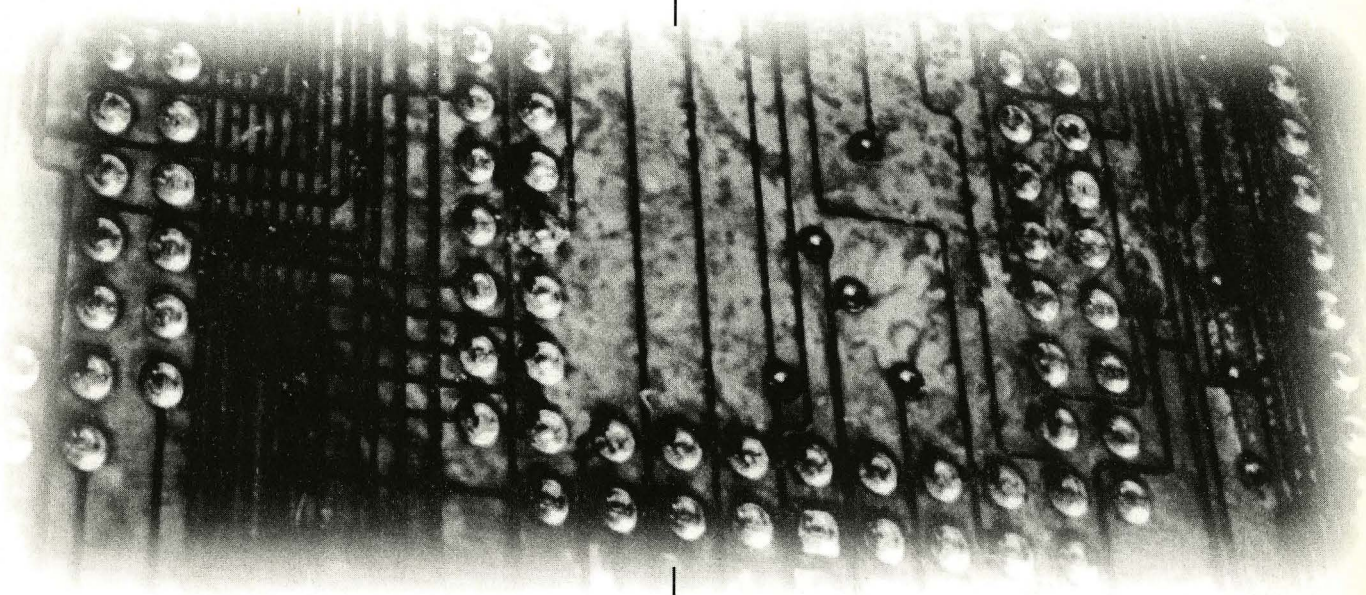
**TWE 5089 = TC 5089 Technical Communications Seminar**

**TWE 5098 = TC 5098 Workshops in TC**

**TWE 5099 = TC 5099 Special Problems TC**

Cincinnati State

T E C H N O L O G Y



f o r  y o u r  c a r e e r

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Elsie Cowie, RD, LD.....Salubrity, Inc.
Carolyn Hall, CDM .....Mercy St. Theresa Care Center
Ruth Holzinger, CDM.....Oak Hills Schools Food Service
Miriam Jackobs, RD, LD .....Spectrum Consultant
Chris Kloth, DTR .....Twin Towers
Teresa Mayes, RD, LD.....Shriners Burns Institute
Kathleen Nemeth, RD, LD .....Sisters of Charity
Dennis Paul, CDM .....The Courtyard at the Seasons
Becky Smith, RD, LD .....University of Cincinnati
Bertha Sparks, CDM, DTR.....Residence at Park View
Anne Steinberg, RD.....Strategic Management
Carol Wright, RD, LD.....Franciscan Hospitals - Mt. Airy and Western Hills Campuses
Cindy Yocum, CDM, DTR.....Ellenbee Leggett

**Early Child Care Program**
Joan Barlage.....Mason Schools
Murlene Joy.....Day Care Consultant
Sandy Kerlin .....Inclusion Network
Ann King.....Adjunct Faculty
Alice Skirtz .....Applied Information Resources
Kyle Wade.....New Hope Family Worship Center

**Electro-Mechanical Engineering Technology**
Dave Capal .....Providence Hospital
Mike Castor.....Control Parameters, Inc.
Al Davenport.....Rite-Track Equipment Services, Inc.
Rick Fath.....Xtec, Inc.
Andrea Feld-Brockett .....Cincinnati State
Jack Gibbs.....Cincinnati State
Mel Heis.....Fountain Square Management Co.
Randy Kappesser .....Cincinnati Milacron
Eric Kornau .....Cincinnati State
Bernie Uchtman .....Sumitomo Sitix Silicon, Inc.
Robert Wilks .....Wilks Engineering Solutions

**Electronics Engineering Technology**
Jim Brooke .....Ohio State University
Glen Elsener .....Elsener Electronics
Mark Faulkner.....UC Computing Center
Joan Glover .....Valentine Research
Randy Holt.....Northern Kentucky University
Don Silvernell .....Hilltop Video
Tom Wallenhorst .....Makino, Inc.

**EMT-Paramedic**
Tony Albano, M.D.
Tricia Brooks.....Chief, Forest Park Fire Dept.
Craig Bryan .....EMT-Paramedic
B. J. Jetters .....Chief, Sycamore Township Fire Dept.
Mark Johnson.....EMT-Paramedic
Mike Kappa.....Cincinnati Fire Dept.
Dave Kemper.....EMT-Paramedic
Dan Lankin, M.D.
Jerry Lautz .....Asst. Chief, Cincinnati Fire Dept.
Dan Mack.....Chief, Miami Township Fire Dept.
Lou Simpson
Colleen Snyder, RN .....The Jewish Hospital
Dale Van Dehatert

**Environmental Engineering Technology**
Larry Foppe, P.E.....Foppe Technical Group
Larry Fradkin.....U.S. Environmental Protection Agency
Cathy Glassmeyer .....FERMCO
Phil Hoel .....Shelby Cnty. Soil & Water Conversation Dist.
John Hubbard, P.E., .....Professor Emeritus
Charles Kane.....Metropolitan Sewer District
Panos Kokoropolous .....Air Force Institute of Technology
Harry St. Clair.....Hamilton County Environmental Services
Harry Stone .Institute of Advanced Manufacturing Sciences
George Schewe .....Environmental Quality Management

**Fire Service Technology**
Barbara Barkley.....UC College of Applied Science
Lawrence Bennett .....Madeira/Indian Hill Fire Department
Bill Birkle.....Petersburg Fire Department
Thomas Crowthers ....Sycamore Township Fire Department
B. J. Jetter.....Sycamore Township Fire Department
Tim Keene .....Delhi Township Fire Department
Tom Lakamp.....Cincinnati Fire Division
Chuck Palm.....Colerain Township Department of Fire and EMS
Terry Ramsey.....Fairfax/Madison Fire Rescue Department
Michael Smith.....New Richmond Fire Department

**Graphic Communications Technology**
Thomas Coon .....Cincinnati Business Printers
Ron Dettmer .....C.J. Krehbiel Co.
Paul Hilvert .....Berman Printing
Jacki Jones .....U.S. Playing Card Co.
Carol Meehan .....Mr. Label
Debbie Pfaffl.....Multi-Craft Litho
Paul Riedel .....A to Z Printing
Robert Zschau.....S. Rosenthal Co.

**Health Excel Services**
Tifanni Curry, OTA.....Mentor
Jim Flesch .....Colerain High School
Jim Lothrop.....T-CAP Work-based Learning Coordinator
Bessie Pitts .....Cincinnati State
Jenny Skinner.....TriHealth Corporate Educational Services

**Health and Fitness Technology**
Joel Aschendorf ..... YMCA
Dottie Belle Meymann ..... Consultant
William Cagle ..... Cincinnati State
Kathy Ison ..... Mercy/Franciscan Holistic Health Center
Diane Hawley ..... Four Seasons Sports Country Club
Brenda Heck ..... Cincinnati State
June Lindle ..... Harrison Fitness Center
Jan Montague ..... Montague, Eippert & Associates
Carolee Oschner ..... Drake Center
Sindy Robbins ..... TriHealth
Leslie Spencer ..... RISE
Dr. Bradley Wilson ..... University of Cincinnati

**Health Information Management Technology**
June Bronnert, RHIA, CCS ..... Veterans Medical Center
Leslie Markesberry, RHIT ..... TriHealth
Carla Nadaja, RHIA ..... Veterans Medical Center
Marge Nimeskern, RHIT ..... United Audit Systems
Cindy Stroud, RHIT ..... St. Elizabeth Hospital
Eve Van Sickle, RHIA ..... Mercy Health Partners

**Health Unit Coordinator**
Olivia Anthony ..... Deaconess Hospital
Bonita Batton ..... University Hospital
Sherri Burgess ..... University Hospital
Charlene Davis ..... University Hospital
David Eppert ..... University Hospital
Sandy Hamilton ..... University Hospital
Angie Head, R.N. ..... University Hospital
Mary Hughes ..... Jewish Hospital
JoEllen Monroe ..... Shriners Burns Hospital
Connie Powell, RN ..... Jewish Hospital
Shirley Powell ..... Bethesda Hospital
Tina Roison ..... Veterans Medical Center
Sharon Rucker ..... Veterans Medical Center
Jackie Shaw, CCUSP ..... University Hospital
Angela White ..... Children's Hospital Medical Center
Chardella Wilcox ..... The Christ Hospital
Karen Winstead ..... Veterans Medical Center

**Hospitality Technologies**
Nancy Carver ..... Iron Horse Inn
Dino Distasi ..... Sysco Food Service
Sheri Einsel ..... Greater Cincinnati Restaurant Association
Andrew Gabriel, C.E.C. ..... Royal Oak Country Club
Grace Gottenbussch ..... Servatii Pastry Shop
Danny Hill ..... Hospitality Appraisals, Inc.
Barbara Mays, C.C.E., C.E.C. ..... The Christ Hospital
Alan Neace, C.E.C. ..... Cold Stream Country Club
Doug Rohmer ..... Hyatt Regency
Marilyn Treon ..... Argosy Casino
Carol Yurek ..... Student

**Integrative Medical Message Therapy**
Sharon Barnes, Ph.D., RMT ..... SHI Integrative Medical Massage School
Tina Holsapple, RMT ..... SHI Integrative Medical Massage School
Heather Morgan, M.D. ..... SHI Integrative Medical Massage School
Sheryl Poynter ..... SHI Integrative Medical Massage School
James Sosebee ..... SHI Integrative Medical Massage School

**Interpreter Training Services**
Randy Bush ..... Cincinnati Public Schools
Greg Ernst ..... St. Rita School for the Deaf
Tina Gonzalez ..... Miami Valley Interpreting Services
Cheryl Merchinsky ..... Cincinnati Public Schools
Toby Petrie ..... Ohio Association of the Deaf - District 2
Libby Sandy .Hamilton County Educational Services Center

**Landscape Horticulture Technologies**
Dennis Baker ..... Self-Employed
Joe Boggs ..... Ohio State Extension
Dr. Dan Flory ..... Cincinnati College of Mortuary Science
Julia Murphy ..... Self-employed
Lloyd Royse ..... The Scotts Co.
Steve Sandfort R.F. ..... City of Cincinnati Urban Forest
Ruth Ann Spears ..... Cincinnati Parks
William Thornton, Jr. ..... Consultant
Matt Vehe ..... Oak Hill Cemetery
Dennis Warner ..... Kenwood Country Club
Fred Wehr ..... Woodside Cemetery Association
Doug Young ..... Live Oaks Career Development Center

**Laser Electro-Optics Engineering Technology**
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Rick Crist ..... Laser Centers of America
Larry Dosser ..... E.G.&G. Corporation
Al Geiser ..... SAIC
Dave Gilbert ..... Cincinnati Incorporated
Gary Griessmann ..... Hi-Tek Manufacturing, Inc.
Jay Madden ..... Christ Hospital
Gary Neiheisel ..... Armco Steel Corp.
Dr. Todd Rockstroh ..... General Electric

**Law Enforcement - Part-time Faculty**
**Associate of Technical Study - Type B**
Col. Tom Ammann ..... Cincinnati Police
Cpt. David Stanley ..... Cincinnati Police
Lt. Charles Ross ..... Cincinnati Police
Sgt. Michael Gardner ..... Cincinnati Police
Sgt. Aaron Taylor ..... Cincinnati Police
Police Officer Michael Broering ..... Cincinnati Police
Police Officer Clarence Spencer ..... Cincinnati Police
Police Officer Chuck Zimmerman ..... Cincinnati Police

**Management/Marketing Technologies**
Judy Blum ..... Andrew Jergen's Company
Frank Broermann ..... Cinfed Credit Union
Ken Cartwright ..... L'Oreal USA
Mary Harris ..... Schulman Associates IRB
Frazier Huddleston ..... Milacron
Rajive Mohan ..... Spirit of America National Bank
Derek Robb ..... Re/Max Premier Associates
Gary Willig ..... Parkway Products

**Mechanical Engineering Technology**
Stephen Carmichael ..... Integrated Systems Research
Sal Forlini ..... SDRC

Deron Oberkorn.....Bickart Felton Assoc., Inc.
Timothy Runyan.....Feintool Cincinnati, Inc.
Jay Settelmayer.....Procter & Gamble
Christy Veach.....Corning Precision Lens, Inc.

**Medical Assistant Technology**
Esly Caldwell, M.D. .....Private Practitioner
Cindy Cox .....Northern Kentucky Business Center
Ann Kyles-Fischer.....Daugherty Medical Group
Clare Ley.....SWOC-AAMA
Joni Miller, RN .....Group Health Associates
Lee Moeller, RN.....Group Health Associates
Debra Novak.....Alliance Primary Care
Lori Seitzer, CMA .....Daugherty Medical Group
Lucille Simmons .....Drs. Cobb/Nichols
Stephanie Tate.....Student Representative

**Multi-Competent Health Technology**
Angie Head, RN .....University Hospital
Kathy McNally.....Deaconess Hospital
Elizabeth Morris .....Good Samaritan Hospital
Mary Jane Perry, RN, BSN, MS .....
Manchester Technical Center
Connie Powell.....Jewish Hospital
Shirley Powell .....Bethesda Hospital
Daphne Robinson .....Cincinnati State
Sarah Sinclair.....The Jewish Hospital
Diane Smith.....Children's Hospital Medical Center
Patricia Woody.....Children's Hospital Medical Center

**Nursing**
Dr. Kathy Driscoll, RN.....University of Cincinnati
Pamela Fairley, RN .....TriHealth
Lisa Heine, RN.....TriHealth
Elaine McGuire, RN.....TriHealth
Judy Moss, RN .....Queen City Vocational
Lina Nichols, RN.....Scarlet Oaks
Patricia Schultz, RN.....HomeCare
Laura Tewes, RN.....Mercy Health Care
Jeff Trees, RN.....Tri-Health

**Occupational Therapy Assistant Technology**
Katie Alering, COTA/L.....Graduate
Tony Bartel .....Hamilton Assistive Technology Services
Ralph Dehner, COTA/L .....Mighty Vine Wellness Center
Marita Hensley, COTA/L .....
Veterans Administration Geriatrics
Tricia McClung, OTR/L.....
Children's Hospital Medical Center
Georganna Miller, OTR/L.....Xavier University
Giovanna Pagano, OTAS .....Student
Michelle Perry, COTA/L .....
Health South Rehabilitation Center
Kay Pfeifer, OTR/L .....Mercy Healthplex-Fairfield
Connie Schitoskey, COTA/L .....
Summit Behavioral Healthcare

**Office Technologies**
Nancy Arlinghaus.....Neace-Lukens
Anne Barnes .....Oak Hills High School
Karen Briggs .....The Procter & Gamble Company
Barbara Burke .....OFFICETEAM
Tricia A. DiLonardo .....Frost and Jacobs LLp
Bonnie Holaday .....Southeastern Career Center
Pam Hunt.....Great Oaks Institute of Technology and Career Development
Pam Shelley .....Butler County JVSD

**Respiratory Care**
Nancy Archdeacon .....Pro $O_2$
Gary Banks .....University Hospital
Jim Betz.....Good Samaritan Hospital
Walter Blower.....Children's Hospital Medical Center
Jenny Boyer .....St. Elizabeth Medical Center
Terry Brom .....Apria
Jackie Caccia.....Jewish Hospital
Cyndi Campbell.....University Hospital
Mike Chaney.....Cincinnati State
Judy Daleiden .....Franciscan Hospitals - Mt. Airy Campus
Dave Dunlap .....St. Elizabeth Medical Center
Jerry Edens .....Children's Hospital Medical Center
Peter Enyeart, M.D. .....Private Practitioner
Karen Hobbs-Carter.....Christ Hospital
Steve Litke .....St. Elizabeth Medical Center South
Debbie Patten.....The Christ Hospital
Scott Pettinichi.....Children's Hospital Medical Center
Steven Pierce .....St. Elizabeth Medical Center
Jenni Raake.....Children's Hospital Medical Center
Mark Vargas.....Cincinnati State
Tim Wilder .....Bethesda North Hospital

**Surgical Technology**
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Julie Blamer.....The Jewish Hospital
Marvin Brower, SA.....Ft. Hamilton Hughes Hospital
Joe Doerger, ST .....The Jewish Hospital
Jenny Etler, CST.....Franciscan Hospitals - Mt. Airy Campus
Laurie Funch, CST.....Cincinnati State
MaryAnn Gellenbeck, RN.....Butler County Surgery Center
Missy Harrington, RN .....The Christ Hospital
Wilma Kennedy .....The Jewish Hospital
Lisa Mullin-Hills, RN
Donna Niemer, CST.....Children's Hospital Medical Center
Teresa Stephens, CST.....University Hospital
Bonnie Volpp, RN .....St. Elizabeth Medical Center-South
Candace Wilson, RN.....Good Samaritan Hospital

**Technical Writing & Editing Technology**
Sandy Fields.....Zonic Corp.
Sean Hughes .....City Beat
Theresa Marchwinski .....Attachmate Corp.
Ray Owens.....SDRC
Stacie Steinberg.....LanVision
Thea Teich.....Teich Marketing Communications

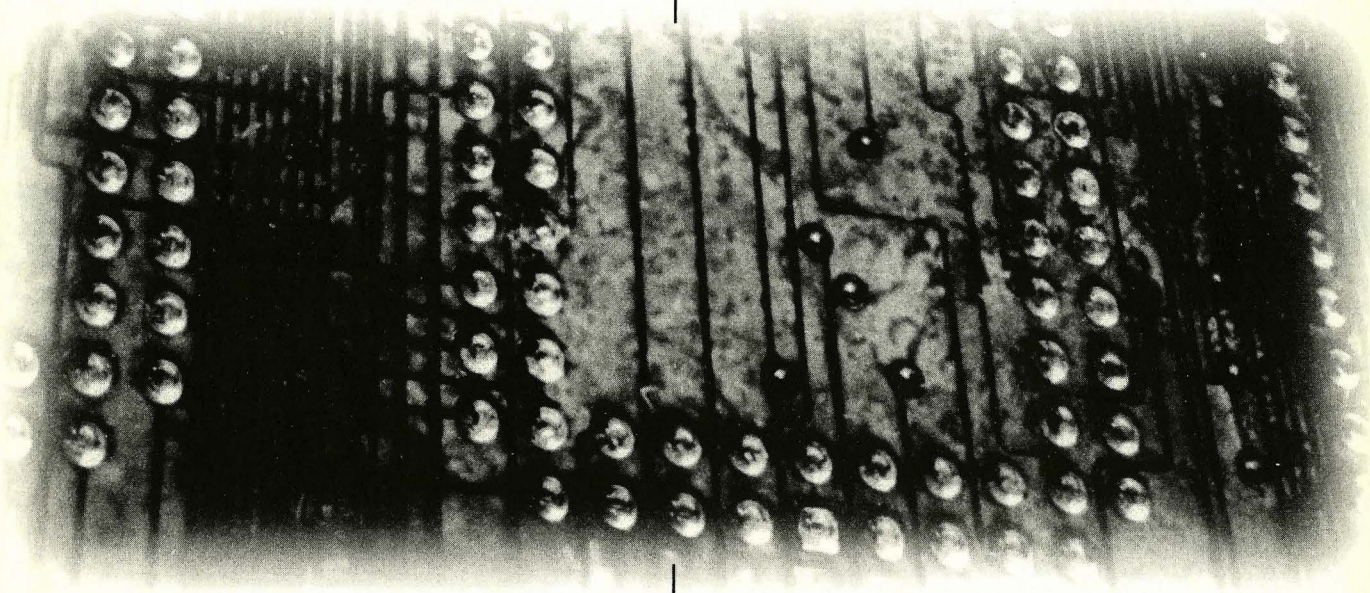
**Telecommunications Information Engineering Technology**
Leon Brown.....WKRC-TV
Clyde Kober .....
Dennis Harrison .....Time Warner Axs
Gary Wiesgerber .....Cellular One
Steven Shoemaker.....CIX, Inc.
Bill Minery .....Cincinnati Bell
Eric Kornau .....Cincinnati State

**Educational Relations Advisory Committee**

Dean Clancey .....Woodward High School
Carol Colclasure .....Loveland High School
Sandy Farris .....Indian Hill High School
Bill Feldman .....Newport High School
Juanita Lovelace .....Princeton High School
Dr. Nancy Luddeke .....Amelia High School

Cincinnati State

# TECHNOLOGY



# for your career

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*Associate of Applied Science*

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**HEALTH TECHNOLOGIES DIVISION**

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98 Dietetic Technician -
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100 Fire Service Technology
100 Health and Fitness Technology *
101 Health Information Management Technician *
102 Integrative Medical Massage Therapy *
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107 Surgical Technology -

*Associate of Technical Studies*

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*Certificates*

108 Aquatic Group Fitness Instructor -
108 Central Service Technology -
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110 Geriatric Activities Coordinator *
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**HUMANITIES DIVISION**

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*Associate of Applied Science*

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**INFORMATION TECHNOLOGIES DIVISION**

*Associate of Applied Business*

119 Audio/Video Production Technology
124 Business Computer Programming Technology
119 Computer Graphics Technology
116 Computer Information Systems Technology
123 Network Administration Technology
118 PC Support and Administration Technology
121 Web Design Technology

*Associate of Applied Science*

122 Computer Network Engineering Technology
117 Database Management Systems Technology
117 Database Management Systems - Administration Major
125 Software Engineering Technology
120 Technical Communication Technology
123 Telecommunications Engineering Technology

*Certificates*

117 Application Development Programmer: AS/400
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121 Desktop Publishing
120 Technical Communication

**SCIENCES DIVISION**

60 *Associate of Science* *


* Day and evening program available • Only evening program available § Friday evenings & Saturdays - Only day program available † Pending Ohio Board of Regents approval

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