Click on the program name within the degree requirements to go to the course descriptions.

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  Aeronautics ..................................................... 357
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  Aeronautical Systems Engineering Technology
    Concentration .................................................. 359
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THE COLLEGE OF TECHNOLOGY
Academic Advising Offices:

119 Van Deusen Hall
330-672-2892
http://www.kent.edu/tech
cotinfo@kent.edu
COLLEGE OF TECHNOLOGY

Statistics indicate that at the start of the 21st century, employment opportunities will be the greatest in high-technology fields. Kent State University’s College of Technology, part of Kent State’s eight-campus network, offers nationally accredited technology-based programs that provide students with the skills needed to compete in today’s job market.

More than 25 programs are offered at the certificate, associate, bachelor’s and master’s degree levels throughout Kent’s eight-campus network. With a talented faculty and flexible schedules that include evening, weekend, distance learning and Web-based classes, the College of Technology has a program to match students’ needs and interests. Academic programs are divided into three areas: aeronautics, applied business technologies and applied science and technology.

On the Kent Campus, the College of Technology offers four-year programs in aeronautics, industrial technology, technology education teacher preparation, construction management and technology. At Kent State’s seven Regional Campuses, the college offers the following two-year degrees: Associate of Applied Business, Associate of Applied Science and the Associate of Technical Studies. Programs in these areas include technology, computer technology, business technology, industrial technology, engineering technology and environmental technology. These programs are described under Regional Campuses.

Many of the credits earned in the associate degree programs can be applied toward the “2+2” program for a B.S. in technology or industrial technology. These programs are described under “2+2” Concentration for Associate Degree Graduates.

Note: To receive a baccalaureate degree from the College of Technology, students must, in addition to other requirements, satisfy the 36-hour minimum stipulated in the Liberal Education Requirements (see Pages 85-87).

Cooperative Education
Cooperative education permits students with technical jobs to capture learning experiences at their place of employment for credit in their college curriculum. Qualified students work with their assigned faculty mentor to define the nature and technical scope of the learning involved. In most cases the faculty mentor will visit the place of employment and discuss the task with the student’s supervisor. At the conclusion of the effort, a report is required to summarize the work completed and the knowledge acquired.

Cooperative Education is available to College of Technology majors of sophomore rank or above with a 2.25 or better overall GPA. Students working full time can earn 2 credit hours a semester; 1 credit may be earned for half-time work. This course is repeatable to a maximum of 6 credits; however, some programs limit use of co-op credits to fulfill graduation requirements.

B.S. in Aeronautics

The programs offered under the Bachelor of Science in Aeronautics consist of four separate areas of study: aeronautical studies, aeronautical systems engineering technology, aviation management and flight technology. All four programs lead to a Bachelor of Science in Aeronautics. The Bachelor of Science in Aeronautics is accredited by the Aviation Accreditation Board International (AABI).

Requirements for Admission for High School Students into the Aeronautics Programs

While Kent State University is an open admissions university that offers admission to all students who are graduates of accredited high schools, admission to the aeronautics programs is limited and highly selective. Only students who have earned a 2.25 high school cumulative GPA are considered for admission. Students must complete one semester with a 2.50 cumulative GPA prior to admission into the aeronautical systems engineering technology, aviation management or flight technology concentrations and prior to commencing flight training courses.

New students applying to the B.S. in aeronautics program who have not yet completed one semester with a 2.50 cumulative GPA are admitted directly into the aeronautical studies concentration.

Requirements for Admission for Transfer Students

Only transfer students with minimum 2.25 GPA are considered for admission. This GPA is based upon a minimum 24 semester hours of college-level work. (Students with fewer than 24 semester credit hours are considered with the high school student pool.)

Requirements for Admission from Another Program

Students already enrolled at Kent State University who desire to change majors to the aeronautics programs must apply on the appropriate form to the Student Services Office, College of Technology. Minimum 2.25 GPA is required to change majors to the aeronautics program. All applications must include official transcripts showing all previously completed coursework.

Flight Course Completion

Students must complete all flight courses within one academic year after course enrollment. This requirement is subject to waiver by the director of aeronautics, chief instructor or assistant chief
College of Technology

instructor. In the absence of an authorized waiver, students who fail to complete any flight course within one academic year after course enrollment will receive a failing grade (F) and a refund of any unused flight fees, less the usual administrative fee of $300.

Comprehensive Exit Exam
All students must successfully complete the comprehensive exit exam requirement prior to graduation with the B.S. in aeronautics. Exit exam requirements are to be satisfied by all graduation candidates no later than the eighth week of the semester of intended graduation. The exit exams shall be offered during the fourth and eighth weeks of the fall and spring semesters. Students who fail will be allowed to retake the exit exams.

Aeronautical Studies Concentration

The aeronautical studies concentration prepares students for entry-level technological positions in aviation and related areas. The program is focused on a fundamental foundation of aeronautically related subjects, but at the same time provides a significant number of course electives that allow students to explore other areas of interest or earn a minor in a particular area of study. Students who successfully complete all degree requirements for this program are awarded a Bachelor of Science in Aeronautics with a concentration in aeronautical studies.

I. General College or University Requirements ............................................1
   US 10097 First Year Colloquium .........................................................1

II. Liberal Education Requirements ..........................................................39
   A complete list of Liberal Education Requirements (LER) courses is on Pages 85-87.

   Composition
   ENG 11011 College Writing I .........................................................3
   21011 College Writing II ...............................................................3

   Mathematics and Critical Reasoning
   MATH 11010 Algebra for Calculus .....................................................3
   11012 Intuitive Calculus .................................................................3

   Humanities and Fine Arts ...............................................................9
   Minimum one course from humanities category and minimum one course from fine arts category.

   Social Sciences
   ECON 22040 Principles of Microeconomics ........................................3

   GEOS* 17063 World Geography ........................................................3

   Basic Sciences
   PHY 13011 College Physics I ...........................................................3
   13012 College Physics II ..............................................................3

   Additional LER Courses
   COMM 15000 Introduction to Human Communication ........................3
   ECON 22061 Principles of Macroeconomics ......................................3

   **Course fulfills diversity requirement.

   **Course fulfills writing-intensive requirement.

   Students are advised to complete all lower-division math, basic science and technology courses before registering for upper-division technology courses.

Diversity Requirement
Students must complete a two-course diversity requirement, consisting of one with a domestic (U.S.) focus and one with a global focus. The global-focus course is fulfilled in this concentration with LER social sciences GEOG 17063. A complete list of diversity courses is on Pages 89-91.

III. Writing-Intensive Requirement
Students must complete a one-course writing-intensive requirement and earn minimum C (2.0) grade. This requirement in this major is fulfilled with TECH 45030 or 45791. A complete list of writing-intensive courses is on Pages 93-95.

IV. Major Requirements .................................................................49

   Technology Courses
   TECH 10001 Information Technology .................................................3
   13580 Engineering Graphics I ........................................................3
   20002 Materials and Processes .........................................................3
   21021 Survey of Electricity and Electronics ......................................4
   33033 Hydraulics and Pneumatics ....................................................3

   Aeronautics Core
   TECH 15000 Introduction to Aeronautics ..........................................3
   15740 Elements of Flight Theory ......................................................5
   25250 Elements of Aviation Weather ................................................3
   35340 Airport Management ............................................................3
   35341 Air Transportation Systems ..................................................3
   35342 Air Traffic Control ...............................................................3
   45130 Physiology and Human Factors ..............................................3
   45150 Applied Flight Dynamics I .....................................................3
   45250 Aviation Law and Safety .......................................................3
   45291 Aerospace Senior Seminar ...................................................1
   ** 45791 Aviation Security and Policy Seminar ................................3

   Engineering Concentration
   TECH 35150 Aircraft Structures .....................................................3
   ** 45291 Aerospace Senior Seminar ................................................1
   ** 45791 Aviation Security and Policy Seminar ................................3

V. Additional Major Requirements ..................................................5
   ENG 20002 Introduction to Technical Writing ..................................3
   MATH 11022 Trigonometry ..............................................................2

VI. Related Courses .................................................................15
   TECH 35020 Aircraft Propulsion Systems ..........................................3
   35040 Aircraft Systems I .................................................................3
   35150 Aircraft Structures ..............................................................3
   ** 45030 Aircraft Systems II ..........................................................3
   45350 Avionics .............................................................................3

VII. Non-Major Requirements .....................................................15
   General electives ..............................................................................15

TOTAL 124
Minimum 39 upper-division hours within the 124 total semester hours are required.

Minimum 2.00 GPA overall and minimum 2.25 GPA in the major are required.

The courses chosen to fulfill the curriculum must satisfy the university diversity requirements.

Aeronautical Systems Engineering Technology Concentration

The aeronautical systems engineering technology concentration prepares students to enter the field of aeronautical engineering as technologists with educational experience in the practical application of theoretical principles. The program includes advanced mathematics and physics courses to complement engineering-related courses in aeronautics technology. Students entering this program should have an extensive background in high school mathematics and science.

I. General College or University Requirements
   - US 10097 First Year Colloquium

II. Liberal Education Requirements
   - A complete list of Liberal Education Requirements (LER) courses is on Pages 85-87.

   Composition
   - ENG 11011 College Writing I
   - ENG 21011 College Writing II

   Mathematics and Critical Reasoning
   - MATH 11010 Algebra for Calculus
   - MATH 12002 Analytic Geometry and Calculus I

   Humanities and Fine Arts
   - Minimum one course from humanities category and minimum one course from fine arts category.

   Social Sciences
   - ECON 22060 Principles of Microeconomics
   - GEOG 17063 World Geography

   Basic Sciences
   - PHY 13011 College Physics I
   - PHY 13012 College Physics II

   Additional LER Courses
   - COMM 15000 Introduction to Human Communication
   - ECON 22061 Principles of Macroeconomics

   Diversity Requirement
   - Students must complete a two-course diversity requirement, consisting of one with a domestic (U.S.) focus and one with a global focus. The global-focus course is fulfilled in this concentration with LER social sciences GEOG 17063. A complete list of diversity courses is on Pages 89-91.

III. Writing-Intensive Requirement
   - Students must complete a one-course writing-intensive requirement and earn minimum C (2.0) grade. This requirement in this concentration is fulfilled with TECH 45030 or 45791. A complete list of writing-intensive courses is on Pages 93-95.

IV. Major Requirements
   - A complete list of major courses is on Pages 97-100.

   Technology Courses
   - TECH 10001 Information Technology
   - TECH 15740 Elements of Flight Theory
   - TECH 25250 Elements of Aviation Weather
   - TECH 35340 Airport Management
   - TECH 35341 Air Transportation Systems
   - TECH 35342 Air Traffic Control
   - TECH 45130 Physiology and Human Factors
   - TECH 45150 Applied Flight Dynamics I
   - TECH 45250 Aviation Law and Safety
   - TECH 45291 Aerospace Senior Seminar
   - TECH ** 45791 Aviation Security and Policy Seminar

   Related Courses
   - TECH 35020 Aircraft Propulsion Systems
   - TECH 35040 Aircraft Structures
   - TECH ** 45030 Aircraft Systems II
   - TECH 45350 Avionics
   - TECH 45121 Advanced Aerospace Propulsion
   - TECH 45151 Applied Flight Dynamics II
   - TECH 45700 Aircraft Design

   TOTAL 129

   *Course fulfills diversity requirement.
   **Course fulfills writing-intensive requirement.

V. Additional Major Requirements
   - Students are advised to complete all lower-division basic science and technology courses before registering for upper-division technology courses.

   Minimum 39 upper-division hours within the 129 total semester hours are required.
College of Technology

Minimum 2.00 GPA overall and minimum 2.25 GPA in the major are required.

The courses chosen to fulfill the curriculum must satisfy the university diversity requirements.

Aviation Management Concentration

The aviation management concentration prepares students for entry-level positions in aviation and other aviation-related professional fields. This course of study combines technical and aeronautical courses with courses in management and information systems. Students entering this program should have a technical interest, mathematical proficiency and an ability to develop analytical and communicative capabilities.

I. General College or University Requirements 1

US 10097 First Year Colloquium 1

II. Liberal Education Requirements 39

A complete list of Liberal Education Requirements (LER) courses is on Pages 85-87.

Composition
ENG 11011 College Writing I 3
21011 College Writing II 3

Mathematics and Critical Reasoning
MATH 11010 Algebra for Calculus 3
11012 Intuitive Calculus 3

Humanities and Fine Arts 9

Minimum one course from humanities category and minimum one course from fine arts category.

Social Sciences
ECON 22060 Principles of Microeconomics 3
GEOG* 17063 World Geography 3

Basic Sciences
PHY 13011 College Physics I 3
13012 College Physics II 3

Additional LER Courses
COMM 15000 Introduction to Human Communication 3
ECON 22061 Principles of Macroeconomics 3

Diversity Requirement
Students must complete a two-course diversity requirement, consisting of one with a domestic (U.S.) focus and one with a global focus. The global-focus course is fulfilled in this concentration with LER social sciences GEOG 17063. A complete list of diversity courses is on Pages 89-91.

III. Writing-Intensive Requirement

Students must complete a one-course writing-intensive requirement and earn minimum C (2.0) grade. This requirement in this concentration is fulfilled with TECH 45791. A complete list of writing-intensive courses is on Pages 93-95.

IV. Major Requirements 73

Technology Courses
TECH 10001 Information Technology 3
13580 Engineering Graphics I 3
20002 Materials and Processes 3
21021 Survey of Electricity and Electronics 4
33033 Hydraulics/Pneumatics 3

Aeronautics Core
TECH 15000 Introduction to Aeronautics 3
15740 Elements of Flight Theory 5
25250 Elements of Aviation Weather 3
35340 Airport Management 3
35341 Air Transportation Systems 3
35342 Air Traffic Control 3
45130 Physiology and Human Factors 3
45150 Applied Flight Dynamics I 3
45250 Aviation Law and Safety 3
45291 Aerospace Senior Seminar 1
** 45791 Aviation Security and Policy Seminar 3

Related Courses
M&IS 24056 Fundamentals of Business Statistics 3
24060 Systems Analysis I 3
24070 Principles of Systems Development 3
24163 Principles of Management 3
34032 Data and File Technology 3
34045 Small Systems Technology 3
34053 Data Integration 3
34060 Operations Management 3

V. Additional Major Requirements 5

ENG 20002 Introduction to Technical Writing 3

VI. General Electives 6

Of the 6 credit hours, 2 credit hours must be upper-division.

**Course fulfills diversity requirement.
**Course fulfills writing-intensive requirement.

Students are advised to complete all lower-division math, basic science and technology courses before registering for upper-division technology courses.

Minimum 39 upper-division hours within the 124 total semester hours are required.

Minimum 2.00 GPA overall and minimum 2.25 GPA in the major are required.

TOTAL 124
Students receive a minor in computer information systems from the College of Business Administration with this option.

The courses chosen to fulfill the curriculum must satisfy the university diversity requirements.

American Assembly of Collegiate Schools of Business accreditation standards prohibit nonbusiness majors from taking more than 25 percent of their degree requirements in business courses. Therefore, no more than 30 semester credit hours may be counted toward stated degree requirements.

---

**Flight Technology Concentration**

The flight technology program prepares students for careers in flight operations as a professional pilot. This concentration stresses subjects associated with flight systems, propulsion, structures and electronics. Students entering this program should have a strong desire for excellence in aviation, as well as the flying skills required of a professional pilot. This option is particularly designed for those students who aspire to become professional pilots.

**I. General College or University Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>US 10097</td>
<td>First Year Colloquium</td>
<td>1</td>
</tr>
</tbody>
</table>

**II. Liberal Education Requirements**

A complete list of Liberal Education Requirements (LER) courses is on Pages 85-87.

<table>
<thead>
<tr>
<th>Composition</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 11011 College Writing I</td>
</tr>
<tr>
<td>ENG 21011 College Writing II</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mathematics and Critical Reasoning</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 11010 Algebra for Calculus</td>
</tr>
<tr>
<td>MATH 11012 Intuitive Calculus</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Humanities and Fine Arts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum one course from humanities category and minimum one course from fine arts category.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Social Sciences</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 22060 Principles of Microeconomics</td>
</tr>
<tr>
<td>GEOG*17063 World Geography</td>
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<thead>
<tr>
<th>Basic Sciences</th>
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</thead>
<tbody>
<tr>
<td>PHY 13011 College Physics I</td>
</tr>
<tr>
<td>PHY 13012 College Physics II</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Additional LER Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 15000 Introduction to Human Communication</td>
</tr>
<tr>
<td>ECON 22061 Principles of Macroeconomics</td>
</tr>
</tbody>
</table>

**Diversity Requirement**

Students must complete a two-course diversity requirement, consisting of one with a domestic (U.S.) focus and one with a global focus. The global-focus course is fulfilled in this concentration with LER social sciences GEOG 17063. A complete list of diversity courses is on Pages 89-91.

**III. Writing-Intensive Requirement**

Students must complete a one-course writing-intensive requirement and earn minimum C (2.0) grade. This requirement in this concentration is fulfilled with TECH 45791. A complete list of writing-intensive courses is on Pages 93-95.

**IV. Major Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TECH 10001</td>
<td>Information Technology</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Aeronautics Core</th>
</tr>
</thead>
<tbody>
<tr>
<td>TECH 15000 Introduction to Aeronautics</td>
</tr>
<tr>
<td>15740 Elements of Flight Theory</td>
</tr>
<tr>
<td>25250 Elements of Aviation Weather</td>
</tr>
<tr>
<td>35340 Air Traffic Control</td>
</tr>
<tr>
<td>35341 Air Transportation Systems</td>
</tr>
<tr>
<td>45130 Physiology and Human Factors</td>
</tr>
<tr>
<td>45150 Applied Flight Dynamics I</td>
</tr>
<tr>
<td>45250 Aviation Law and Safety</td>
</tr>
<tr>
<td>45291 Aerospace Senior Seminar</td>
</tr>
</tbody>
</table>

**Flight Technology Courses**

Choose from the following: 3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TECH 15741</td>
<td>Private Pilot Flight</td>
<td>3</td>
</tr>
<tr>
<td>25743</td>
<td>Commercial Pilot Flight I</td>
<td>2</td>
</tr>
<tr>
<td>35644</td>
<td>Instrument Flight Theory</td>
<td>3</td>
</tr>
<tr>
<td>35645</td>
<td>Instrument Flight Pilot</td>
<td>2</td>
</tr>
<tr>
<td>35647</td>
<td>Commercial Pilot Flight II</td>
<td>2</td>
</tr>
<tr>
<td>35746</td>
<td>Commercial Pilot Theory</td>
<td>2</td>
</tr>
<tr>
<td>35747</td>
<td>Commercial Pilot Flight III</td>
<td>2</td>
</tr>
<tr>
<td>45648</td>
<td>Theory of Flight Instruction</td>
<td>2</td>
</tr>
<tr>
<td>45649</td>
<td>Flight Instructor-Airplanes</td>
<td>2</td>
</tr>
<tr>
<td>45653</td>
<td>Multi-Engine Pilot Flight</td>
<td>1</td>
</tr>
<tr>
<td>45710</td>
<td>Turbine Engine Theory and Operation</td>
<td>2</td>
</tr>
<tr>
<td>45711</td>
<td>Turbine Engine Theory and Operation Lab</td>
<td>1</td>
</tr>
<tr>
<td>45720</td>
<td>Crew Resource Management</td>
<td>2</td>
</tr>
<tr>
<td>45721</td>
<td>Crew Resource Management Lab</td>
<td>1</td>
</tr>
</tbody>
</table>

**Related Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TECH 45350</td>
<td>Avionics (3)</td>
<td>3</td>
</tr>
<tr>
<td>45730</td>
<td>Applied Transport Category Aircraft Systems (3)</td>
<td></td>
</tr>
<tr>
<td>45740</td>
<td>Flight Management and Electronic Display Systems (3)</td>
<td></td>
</tr>
</tbody>
</table>
College of Technology

45030 Aircraft Systems II .............................................. 3

V. Additional Major Requirements .................................... 5
ENG 20002 Introduction to Technical Writing .................. 3
MATH 11022 Trigonometry ............................................ 2

VI. General Elective ................................................... 1

TOTAL 124

*Course fulfills diversity requirement.
**Course fulfills writing-intensive requirement.

Students are advised to complete all lower-division math, basic science and nonflight technology courses before registering for nonflight upper-division technology courses.

Minimum 39 upper-division hours within the 124 total semester hours are required.

Minimum 2.00 GPA overall and minimum 2.25 GPA in the major are required.

The courses chosen to fulfill the curriculum must satisfy the university diversity requirements.

B.S. in Industrial Technology

Industrial technology programs are closely related to the fields of electronic, industrial and manufacturing engineering and prepare students for employment in technical, scientific and managerial positions. Each of the industrial technology concentrations consists of a liberal arts base combined with appropriate studies in the natural sciences, technology and management.

The industrial technology graduate may be employed in various positions, including the following: manufacturing or electronics technician, technical sales representative, engineering assistant, technical supervisor/manager, computer-aided design (CAD) specialist and entry-level engineer. Graduates may be involved in research and development (R&D) activities while working closely with engineering personnel.

Within the industrial technology major, students may choose either the electronics concentration or the manufacturing systems concentration. Additionally, a “2+2” concentration is available for graduates of associate degree programs. These concentrations are accredited by the National Association of Industrial Technology (NAIT).

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Electronics Concentration

I. General College or University Requirements .................. 1
US 10097 First Year Colloquium ................................... 1

II. Liberal Education Requirements ................................. 50
A complete list of Liberal Education Requirements (LER) courses is on Pages 85-87.

Composition
ENG 11011 College Writing I ...................................... 3
21011 College Writing II ........................................... 3

Mathematics and Critical Reasoning
MATH 11010 Algebra for Calculus .................................. 3
12002 Analytic Geometry and Calculus I ......................... 5

Humanities and Fine Arts ........................................... 9
Minimum one course from humanities category and minimum one course from fine arts category.

Social Sciences
Must be selected from two curricular areas.
ECON 22060 Principles of Microeconomics ...................... 3
LER social sciences course ........................................ 3

Basic Sciences
CHEM 10060 General Chemistry I .................................. 4
10062 General Chemistry I Laboratory ............................ 1
PHY 23101 General University Physics I ......................... 5
23102 General University Physics II .............................. 5

Additional LER Courses
COMM 15000 Introduction to Human Communication ............ 3
ECON 22061 Principles of Macroeconomics ..................... 3

Diversity Requirement
Students must complete a two-course diversity requirement, consisting of one with a domestic (U.S.) focus and one with a global focus. One course must come from the LER list; the second course may be taken as a second LER in the major area or in a minor as a general elective. A complete list of diversity courses is on Pages 89-91.

III. Writing-Intensive Requirement
Students must complete a one-course writing-intensive requirement and earn minimum C (2.0) grade. This requirement in this concentration may be fulfilled with option M&IS 44150. A complete list of writing-intensive courses is on Pages 93-95.

IV. Major Requirements ........................................... 44

Technology Core
TECH 10001 Information Technology ............................. 3
13580 Engineering Graphics I ...................................... 3
20004 Electrical Circuits I .......................................... 3

Technology
TECH 23224 Electrical Circuits II .................................. 3
23581 Computer Aided Engineering Graphics ..................... 3
33220 Analog Electronics ........................................... 3
I. General College or University Requirements ..................... 1
   US 10097 First Year Colloquium ................................ 1
II. Liberal Education Requirements ................................. 48
   A complete list of Liberal Education Requirements (LER) courses is on Pages 85-87.
   Composition
      ENG 11011 College Writing I ................................. 3

    TOTAL 127

   *Course fulfills writing-intensive requirement.

Students should complete technology core sequence and all required lower-division math and science courses before registering for upper-division technology courses.

Minimum of 39 upper-division hours required.

Minimum 2.00 overall GPA required. Minimum 2.25 GPA required in major and in field of concentration.

The courses chosen to fulfill the curriculum must satisfy university diversity and writing-intensive course requirements.

Manufacturing Systems Concentration

I. General College or University Requirements ..................... 1
   US 10097 First Year Colloquium ................................ 1
II. Liberal Education Requirements ................................. 48
   A complete list of Liberal Education Requirements (LER) courses is on Pages 85-87.
   Composition
      ENG 11011 College Writing I ................................. 3

    TOTAL 127

Mathematics and Critical Reasoning
   MATH 11010 Algebra for Calculus ................................ 3
   12002 Analytic Geometry and Calculus I .................... 5

Humanities and Fine Arts ........................................ 9
   Minimum one course from humanities category and minimum one course from fine arts category.

Social Sciences
   Must be selected from two curricular areas.
   ECON 22060 Principles of Microeconomics .................... 3
   LER social sciences course .................................... 3

Basic Sciences
   CHEM 10050 Fundamentals of Chemistry ....................... 3
   PHY 23101 General University Physics I .................... 5
   23102 General University Physics II ....................... 5

Additional LER Courses
   COMM 15000 Introduction to Human Communication .......... 3
   ECON 22061 Principles of Macroeconomics ................ 3

Diversity Requirement
   Students must complete a two-course diversity requirement, consisting of one with a domestic (U.S.) focus and one with a global focus. One course must come from the LER list; the second course may be taken as a second LER, in the major area or in a minor as a general elective. A complete list of diversity courses is on Pages 89-91.

IV. Technology Core ................................................... 13
   TECH 10001 Information Technology ......................... 3
   13580 Engineering Graphics I ................................ 3
   20002 Materials and Processes ................................ 3
   21021 Survey of Electricity and Electronics ............... 4

V. Technology .......................................................... 38
   TECH 23581 Computer-Aided Engineering Graphics ........ 3
   31065 Cast Metals ............................................. 3
   33031 Programmable Logic Controllers .................... 3
   33033 Hydraulics/Pneumatics ................................ 3
   33111 Strength of Materials ................................ 3
   33363 Metallurgy and Material Science .................... 3
   34002 Advanced CAD II ....................................... 3
   43080 Industrial and Environmental Safety ................. 3
   43550 Computer Aided Manufacturing ....................... 3
   43580 Computer-Aided Machine Design ..................... 3
   43700 Computer Integrated Manufacturing ................ 3
   43800 Applied Engineering Technology Seminar ........... 2
   46330 Visual Basic Programming in Engineering
      Technology .................................................... 3

2007-2008 Kent State University Undergraduate Catalog
VI. Additional Major Requirements ...........................................8
CS 10061 Introduction to Computer Programming ........ 3
ENG 20002 Introduction to Technical Writing ........ 3
MATH 11022 Trigonometry ................................ 2

VII. Business .................................................................9
ACCT 23020 Introduction to Financial Accounting ........ 3
M&IS 24056 Principles of Business Statistics ........ 3
24163 Principles of Management ............ 3

VIII. Electives ..........................................................11
Choose from the following: ................................ 6
M&IS 34060 Operations Management (3)
34180 Human Resource Management (3)
44150 Total Quality Management (3)
Choose from the following: ................................. 5
TECH* 31000 Cultural Dynamics of Technology (3)
31016 Manufacturing Technology (3)
33056 Cooperative Education (1-6)
33220 Analog Electronics (3)
33222 Digital Design and Applications (3)
33223 Electronic Communication (3)

TOTAL 128

*Course fulfills writing-intensive requirement.

Students must complete technology core sequence and all required lower-division math and science courses before registering for upper-division technology courses.

Minimum of 39 upper-division hours required.

The courses chosen to fulfill the curriculum must satisfy the university diversity and writing-intensive course requirements.

B.S. in Technology

The Bachelor of Science in Technology provides a liberal education within the technological culture for students contemplating careers in technical-industrial fields. Courses in the major provide breadth of technical experience, while electives may be utilized to increase competencies in one or more areas. This degree program is accredited by NAIT.

I. General College or University Requirements .....................1
US 10097 First Year Colloquium ................................ 1

II. Liberal Education Requirements ....................................40
A complete list of Liberal Education Requirements (LER) courses is on Pages 85-87.

Composition
ENG 11011 College Writing I ................................. 3

21011 College Writing II ................................ 3

Mathematics and Critical Reasoning
MATH 11010 Algebra for Calculus .......................... 3

Humanities and Fine Arts .............................................9
Minimum one course from humanities category and minimum one course from fine arts category.

Social Sciences
ECON 22060 Principles of Microeconomics ........ 3
PSYC 11762 General Psychology .......... 3

Basic Sciences
Choose from the following: ................................. 10
PHY 13001 General College Physics I (5)
13002 General College Physics II (5)
or
PHY * 12201 Technical Physics I (3)
* 12202 Technical Physics II (4)
Basic Science LER courses (3)

Additional LER Courses
COMM 15000 Introduction to Human Communication ........ 3
Choose from the following: ................................. 3
PHIL 11009 Principles of Thinking (3)
LER course from above categories (3)

Diversity Requirement
Students must complete a two-course diversity requirement, consisting of one with a domestic (U.S.) focus and one with a global focus. One course must come from the LER list; the second course may be taken as a second LER, in the major area or in a minor as a general elective. A complete list of diversity courses is on Pages 89-91.

III. Writing-Intensive Requirement
Students must complete a one-course writing-intensive requirement and earn minimum C (2.0) grade. This requirement in this major is fulfilled with TECH 31000 or M&IS 44150. A complete list of writing-intensive courses is on Pages 93-95.

IV. Major Requirements .............................................39

Technology Core
TECH 10001 Information Technology ....................... 3
13580 Engineering Graphics I ................................ 3
20001 Energy/Power ............................................. 3
20002 Materials and Processes ......................... 3
21021 Survey of Electricity and Electronics ................. 4

Technology
TECH 11071 Woods Technology I ............................. 3
23581 Computer-Aided Engineering Graphics ........... 3
** 31000 Cultural Dynamics of Technology ........ 3
31015 Construction Technology .......................... 3
31016 Manufacturing Technology ..................... 3
31087 Design for Technology ............................. 3
32002 Materials and Processes II ......................... 3
43800 Applied Engineering Technology Seminar ...... 2

2007-2008 Kent State University Undergraduate Catalog
V. Additional Major Requirements .......................................................... 8

   ENG  20002  Introduction to Technical Writing  .................... 3
   MATH  11022  Trigonometry ................................................. 2
   PSYC  31773  Industrial Psychology .................................... 3

VI. Business Requirements .............................................................. 6

   M&IS  24163  Principles of Management  ............................. 3
   M&IS  24056  Fundamentals of Business Statistics (3) ....... 3

   **  44150  Total Quality Management (3)

   TOTAL 123

*PHY 12021 and 12022 are approved as exceptions to the Liberal Education Requirements (LER).
**Course fulfills writing-intensive requirement.

Upper-division technology electives must be chosen with faculty advisor.

Students must complete technology core sequence and all required lower-division math and science courses before registering for upper-division technology courses.

Minimum of 39 upper-division hours required.

Minimum 2.00 overall GPA is required. Minimum 2.25 GPA required in major.

Technology Education Licensure

I. General College or University Requirements .......................... 1

   US  10097  First Year Colloquium  ....................................... 1

II. Liberal Education Requirements .............................................. 38

A complete list of Liberal Education Requirements (LER) courses is on Pages 85-87.

   Composition
   ENG  11011  College Writing I  ........................................... 3
   21011  College Writing II .................................................. 3

   Mathematics and Critical Reasoning
   MATH  11010  Algebra for Calculus .................................... 3

   Humanities and Fine Arts ................................................... 9

   Minimum one course from humanities category and minimum one course from fine arts category.

   Social Sciences
   Must be selected from two curricular areas.
   PSYC  11762  General Psychology ..................................... 3
   LER social sciences course .............................................. 3

Basic Sciences ................................................................. 8

   Minimum 6 credit hours from courses with a laboratory component.

Additional LER Courses

   COMM  15000  Introduction to Human Communication ........... 3
   PHIL  11009  Principles of Thinking (3)
   LER course from above categories (3)

Diversity Requirement

Students must complete a two-course diversity requirement, consisting of one with a domestic (U.S.) focus and one with a global focus. One course must come from the LER. The domestic-focus course is fulfilled in this major with SPED 23000. A complete list of diversity courses is on Pages 89-91.

III. Writing-Intensive Requirement

Students must complete a one-course writing-intensive requirement and earn minimum C (2.0) grade. This requirement in this major is fulfilled with TECH 31000 or 41001. A complete list of writing-intensive courses is on Pages 93-95.

IV. Technology Requirements ...................................................... 40

   TECH  10001  Information Technology  ............................. 3
   11071  Woods Technology I ............................................. 3
   13580  Engineering Graphics I .......................................... 3
   20001  Energy/Power ........................................................ 3
   20002  Materials and Processes ......................................... 3
   21021  Survey of Electricity and Electronics ..................... 4
   21046  Graphic Communications Technology I ................... 3
   23581  Computer-Aided Engineering Graphics .................... 3
   *  31000  Cultural Dynamics of Technology ...................... 3
   31015  Construction Technology ...................................... 3
   31016  Manufacturing Technology .................................... 3
   31087  Design for Technology ......................................... 3
   32002  Materials and Processes II ................................. 3

V. Additional Major Requirements .............................................. 8

   ENG  20002  Introduction to Technical Writing .................... 3
   MATH  11022  Trigonometry ............................................. 2
   PSYC  31773  Industrial Psychology .................................. 3

VI. Education Licensure Requirements ....................................... 39

   EDPF  29525  Educational Psychology  ............................... 3
   29535  Education in a Democratic Society  ......................... 3
   HED  42575  Health and Learning: Strategies  .................... 3
   ITEC  19525  Educational Technology  ................................ 3
   SPED  23000  Introduction to Exceptionalities ................. 3
   TECH*  41001  Methods in Technology Education .............. 3
   41002  Organization in Technology Education .................. 3
   41051  Foundations and Contemporary Theories of Technology Education ........................................... 3
   41052  Technology Education for Elementary School .......... 3
   46031  Student Teaching ................................................... 9
   49525  Inquiry into Professional Practice ....................... 3
**Course fulfills writing-intensive requirement.**

**Course fulfills diversity requirement.**

Minimum 2.50 overall GPA and minimum 2.75 GPA in all TECH courses are required for graduation.

---

**B.S. in Technology**

### Construction Management

<table>
<thead>
<tr>
<th>Category</th>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. General College or University Requirements</td>
<td>US 10097 First Year Colloquium</td>
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<tr>
<td>II. Liberal Education Requirements</td>
<td>ENG 11011 College Writing I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ENG 21011 College Writing II</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MATH 11001 Algebra for Calculus</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Humanities and Fine Arts</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Social Sciences</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Basic Sciences</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>PHY 13001 General College Physics I</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>PHY 13002 General College Physics II</td>
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<td></td>
<td><strong>PHY 12001 Technical Physics I</strong></td>
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<tr>
<td></td>
<td><strong>PHY 12002 Technical Physics II</strong></td>
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<tr>
<td></td>
<td>LER basic sciences course</td>
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<td></td>
<td>Additional LER Courses</td>
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<tr>
<td></td>
<td>COMM 15000 Introduction to Human Communication</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MATH 11012 Intuitive Calculus</td>
<td>3</td>
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<td></td>
<td>Diversity Requirement</td>
<td>3</td>
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<tr>
<td>III. Writing-Intensive Requirement</td>
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<td>3</td>
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<td>TOTAL 126</td>
</tr>
</tbody>
</table>

**Course fulfills writing-intensive requirement.**

**Course fulfills diversity requirement.**

Minimum 2.00 overall GPA is required. Minimum 2.25 GPA required in major.

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**College of Technology**

TOTAL 126

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IV. Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
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<tr>
<td>TECH 10001 Information Technology</td>
<td>3</td>
</tr>
<tr>
<td>13580 Engineering Graphics I</td>
<td>3</td>
</tr>
<tr>
<td>20001 Energy Power</td>
<td>3</td>
</tr>
<tr>
<td>20002 Materials and Processes</td>
<td>3</td>
</tr>
<tr>
<td>21021 Survey of Electricity and Electronics</td>
<td>4</td>
</tr>
<tr>
<td>** 31000 Cultural Dynamics of Technology</td>
<td>3</td>
</tr>
<tr>
<td>** 31005 Construction Technology</td>
<td>3</td>
</tr>
<tr>
<td>** 31023 Construction Surveying</td>
<td>3</td>
</tr>
<tr>
<td>31043 Principles of Concrete Construction</td>
<td>3</td>
</tr>
<tr>
<td>31044 Construction Occupational Safety and Health</td>
<td>3</td>
</tr>
<tr>
<td>32105 Construction Jobsite Management</td>
<td>3</td>
</tr>
<tr>
<td>41040 Residential Construction Estimating</td>
<td>3</td>
</tr>
<tr>
<td>41041 Commercial Construction Estimating</td>
<td>3</td>
</tr>
<tr>
<td>42105 Construction Contracts</td>
<td>3</td>
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<tr>
<td>42107 Construction Scheduling</td>
<td>3</td>
</tr>
</tbody>
</table>

**Course fulfills writing-intensive requirement.**

**Course fulfills diversity requirement.**

Students must complete technology core sequence and all required lower-division math and science courses before registering for upper-division technology courses.

Minimum of 39 upper-division hours required.

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TOTAL 124

**PHY 12201 and 12202 are approved as exceptions to the Liberal Education Requirements (LER).**

**Course fulfills writing-intensive requirement.**

---

Students must complete technology core sequence and all required lower-division math and science courses before registering for upper-division technology courses.

Minimum of 39 upper-division hours required.

---

Minimum 2.00 overall GPA is required. Minimum 2.25 GPA required in major.

---

**Course fulfills writing-intensive requirement.**

**Course fulfills diversity requirement.**

Minimum 2.50 overall GPA and minimum 2.75 GPA in all TECH courses are required for graduation.
"2+2" Concentration for Associate Degree Graduates

The "2+2" concentration provides a variety of options for associate degree graduates who wish to advance their careers in technical environments. It allows graduates to apply all, or nearly all, of the coursework completed in their associate degree program toward the Bachelor of Science in Technology. Six options are available. The general option permits graduates from a variety of associate degree backgrounds to formulate a program of advanced study in upper-division technical courses, chosen with a faculty advisor, to gain additional technical depth or breadth. The general electives in this option can be used to earn a minor from another academic unit to complement their major study. The five other options are based on specific associate degrees and offer a more focused Bachelor of Science completion utilizing specific upper-division courses in the area of specialization. These options are accredited by NAIT.

General Option

I. General College or University Requirements ........................ 1
   US 10097 First Year Colloquium ..................................... 1

II. Liberal Education Requirements ........................................... 38-39
   A complete list of Liberal Education Requirements (LER) courses is on Pages 85-87.
   Composition
   ENG 11011 College Writing I ............................................ 3
   21011 College Writing II ............................................... 3
   Mathematics and Critical Reasoning
   Choose from the following: ............................................. 3-4
   MATH 11010 Algebra for Calculus (3)
   12001 Algebra and Trigonometry (4)
   Humanities and Fine Arts ............................................... 9
   Minimum one course from humanities category and minimum one course from fine arts category.
   Social Sciences ............................................................. 6
   Must be selected from two curricular areas.
   Basic Sciences
   Choose from the following: ............................................. 8
   Must include two laboratory courses.
   CHEM 10030 Chemistry in Our World (3)
   10050 Fundamentals of Chemistry (3)
   10052 Introduction to Organic Chemistry (2)
   10053 Inorganic and Organic Laboratory (1)
   (corequisite CHEM 10052)
   10054 General and Elementary Organic Chemistry (5)
   GEOL 11040 Earth Dynamics (3)
   11041 Earth Dynamics Laboratory (1)
   (pre/corequisite GEOL 11040)

11042 Earth History (3)
11043 Earth History Laboratory (1)
   (pre/corequisite 11042)
PHY * 12201 Technical Physics I (3)
* 12202 Technical Physics II (4)
11660 Physical Science (3)
13001 General College Physics I (5)
13002 General College Physics II (5)
13011 College Physics I (3)
13012 College Physics II (3)

Additional LER Courses
COMM 15000 Introduction to Human Communication ............ 3
Choose from the following: ............................................. 3
PHIL 11009 Principles of Thinking (3)
LER course from above categories (3)

Diversity Requirement
Students must complete a two-course diversity requirement, consisting of one with a domestic (U.S.) focus and one with a global focus. One course must come from the LER list, the second course may be taken as a second LER, in the major area or in a minor as a general elective. A complete list of diversity courses is on Pages 89-91.

III. Writing-Intensive Requirement
Students must complete a one-course writing-intensive requirement and earn minimum C (2.0) grade. This requirement in this major is fulfilled with COMM 35864 or M&IS 44150. A complete list of writing-intensive courses is on Pages 93-95.

IV. Technology Major Requirements ......................................... 34
   Credits from approved associate degree.

V. Additional Major Requirements ........................................... 5
   MATH 11022 Trigonometry ............................................. 2
   Choose from the following: ............................................. 3
   ENG 20002 Introduction to Technical Writing (3)
   ITAP 26638 Business Communications (3)

VI. Technology Electives ...................................................... 15
   Courses must be upper-division.

VII. General Electives ......................................................... 27-28
   Minimum 12 credit hours upper-division. Elective choices must include three courses of management concepts or practice with maximum one from concepts.

   Management Concepts
   ACCT 23020 Introduction to Financial Accounting (3)
   ACTT 11001 Accounting II - Managerial (4)
   BMRT 21000 Business Law and Ethics I (3)
   COMM 25863 Business and Professional Communication (3)
   35550 Small Group Communication (3)
   ** 35864 Organizational Communication (3)
   ECON 22060 Principles of Microeconomics (3)
   22061 Principles of Macroeconomics (3)
   IERT 22000 Statistical Process Control (4)
College of Technology

ITAP 26638 Business Communications (3)
M&S 24056 Fundamentals of Business Statistics (3)
PSYC 31773 Industrial Psychology (3)

Management Practice
ACCT 33063 Cost Control and Analysis for Management (3)
BMRT 11000 Introduction to Business (3)
11009 Introduction to Management Technology (3)
21005 Purchasing and Supply Management (3)
21006 Human Resources Management (3)
21008 Case Studies in Management Technology (3)
21009 Seminar in Management Technology (3)
21011 Fundamentals of Financial Management (3)
IERT 22006 Economic Decision Analysis (3)
M&S 24163 Principles of Management (3)
34056 Operations Management (3)
34165 Dynamics of Leadership (3)
34180 Human Resource Management (3)
** 44150 Total Quality Management (3)
MFGT 12010 Safety in the Workplace (2)
SOC 42564 Bureaucratic Organizations (3)
TECH 43080 Industrial and Environmental Safety (3)

TOTAL 121

*PHY 12201 and 12202 are approved as an exception to the Liberal Education Requirements (LER).
**Course fulfills writing-intensive requirement.

Graduation from the program requires an approved associate degree. Minimum 2.00 overall GPA required with minimum 2.00 GPA in upper-division TECH courses. Upper-division technology electives must be chosen with faculty advisor. The courses chosen to fulfill the curriculum must satisfy university diversity and writing-intensive course requirements. Minimum 27 credit hours of upper-division coursework required for technology associate degree graduates.

Computer Design and Animation Option

I. General College or University Requirements ................................. 1
   US 10097 First Year Colloquium ........................................... 1

II. Liberal Education Requirements ............................................. 42
   A complete list of Liberal Education Requirements (LER) courses is on Pages 85-87.
   Composition
   ENG 11011 College Writing I .............................................. 3
   21011 College Writing II .................................................. 3
   Mathematics and Critical Reasoning
   MATH 11010 Algebra for Calculus ....................................... 3
   11012 Intuitive Calculus .................................................. 3

   Humanities and Fine Arts
   PHIL * 21001 Introduction to Ethics .................................... 3
   Humanities or art history LER course ................................... 3
   Choose from the following: ............................................. 3
   ARTH 22006 Art History I: Ancient and Medieval Art (3)
   22007 Art History II: Renaissance to Modern Art (3)

   Social Sciences
   ECON 22060 Principles of Microeconomics ............................. 3
   SOC * 12050 Introduction to Sociology ................................ 3

   Basic Sciences
   PHY 11030 Seven Ideas that Shook the Universe .................... 3
   PHY** 12201 Technical Physics I ....................................... 3
   Basic sciences LER laboratory .......................................... 3

   Additional LER Courses
   Comm 15000 Introduction to Human Communication ................. 3
   ECON 22061 Principles of Macroeconomics ............................ 3

   Diversity Requirement
   Students must complete a two-course diversity requirement, consisting of one with a domestic (U.S.) focus and one with a global focus. The domestic-focus course is fulfilled in this major with LER social sciences SOC 12050. The global-focus course is fulfilled with LER humanities PHIL 21001. A complete list of diversity courses is on Pages 89-91.

III. Writing-Intensive Requirement
   Students must complete a one-course writing-intensive require-
   ment and earn minimum C (2.0) grade. This requirement in this major is fulfilled with TECH 33056. A complete list of writing-
   intensive courses is on Pages 93-95.

IV. Major Requirements ....................................................... 34
   Credits for Associate of Applied Science in Computer Design and
   Animation Technology.

V. Technology Courses .......................................................... 28
   TECH 33016 PC Network Engineering .................................. 3
   34000 Computer Animation II .......................................... 3
   34001 Computer Animation III ......................................... 3
   34002 Advanced CAD II .................................................. 3
   34003 Animation Theory .................................................. 3
   34004 Technology of Light, Color, Design and Layout ............ 2
   43000 Advanced Animation Development ................................
   43001 Technology of Media and Film Production ................. 2
   43002 Graphics Design Technology .................................... 3
   43003 Multimedia and Virtual Reality II ......................... 2
   43004 Unix Scripting With Applications ............................. 2

VI. Related Courses .............................................................. 13
   ARTF 14000 Drawing I .................................................. 3
   BMRT 11000 Introduction to Business ................................ 3
   IERT 22006 Economic Decision Analysis ............................ 3
   TECH** 33056 Cooperative Education ................................ 2
   Choose from the following: ............................................. 2
   CMGT 21092 Computer Practicum (2)
Computer Technology Option

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>IERT 22095</td>
<td>Special Topics in Productivity Software</td>
<td>(2)</td>
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<td>VII.</td>
<td>Additional Major Requirements</td>
<td>.5</td>
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<tr>
<td>ENG 20002</td>
<td>Introduction to Technical Writing</td>
<td>.3</td>
</tr>
<tr>
<td>MATH 11022</td>
<td>Trigonometry</td>
<td>.2</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>123</td>
</tr>
</tbody>
</table>

*Course fulfills diversity requirement.
**PHY 12201 is approved as an exception to the Liberal Education Requirements (LER).
***Course fulfills writing-intensive requirement.

Graduation from the program requires an approved associate degree. Minimum of 2.00 overall GPA required for graduation with minimum of 2.00 GPA in upper-division TECH courses. Upper-division technology electives must be chosen with faculty advisor.

### Computer Technology Option

<table>
<thead>
<tr>
<th>I. General College or University Requirements</th>
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<tbody>
<tr>
<td>US 10097 First Year Colloquium</td>
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<tr>
<th>II. Liberal Education Requirements</th>
<th>38-39</th>
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</thead>
<tbody>
<tr>
<td>Composition</td>
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<tr>
<td>ENG 11011 College Writing I</td>
<td>.3</td>
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<td>21011 College Writing II</td>
<td>.3</td>
</tr>
<tr>
<td>Mathematics and Critical Reasoning</td>
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<tr>
<td>Choose from the following:</td>
<td>.3-4</td>
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<tr>
<td>MATH 11010 Algebra for Calculus</td>
<td>.3</td>
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<td>12001 Algebra and Trigonometry</td>
<td>.4</td>
</tr>
<tr>
<td>Humanities and Fine Arts</td>
<td>.9</td>
</tr>
<tr>
<td>Minimum one course from humanities category</td>
<td></td>
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<tr>
<td>Social Sciences</td>
<td>.6</td>
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<tr>
<td>Must be selected from two curricular areas.</td>
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<tr>
<td>Basic Sciences</td>
<td>.8</td>
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<td>Choose from the following:</td>
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## Additional Major Requirements

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<tr>
<td>ENG 20002</td>
<td>Introduction to Technical Writing</td>
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<td>MATH 11022</td>
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<td>Choose from the following:</td>
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## Computer Technology Electives

Must be TECH courses numbered 363XX or 463XX.

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<thead>
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<th>Course Name</th>
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<tbody>
<tr>
<td>ACCOUNT 23020</td>
<td>Introduction to Financial Accounting</td>
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<tr>
<td>ACTT 11001</td>
<td>Accounting II - Managerial</td>
<td>(4)</td>
</tr>
<tr>
<td>BMRT 21000</td>
<td>Business Law and Ethics I</td>
<td>(3)</td>
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## General Electives

Minimum 12 credit hours upper-division, including 6 hours selected from any of the following TECH courses:

- TECH 363XX or 463XX
- Any of the following with COMT faculty permission: TECH 31000, 33056, 36008, 36095, 36401, 36415, 41055, 42100
- Elective choices must include three courses from management concepts or practice with a maximum of one course from concepts.

### Management Concepts

- ACCT 23020 Introduction to Financial Accounting
- ACTT 11001 Accounting II - Managerial
- BMRT 21000 Business Law and Ethics I
**College of Technology**

**Management Practice**
- ACCT 33063 Cost Control and Analysis for Management (3)
- BMRT 11000 Introduction to Business (3)
- 11009 Introduction to Management Technology (3)
- 21005 Purchasing and Supply Management (3)
- 21006 Human Resources Management (3)
- 21008 Case Studies in Management Technology (3)
- 21009 Seminar in Management Technology (3)
- 21011 Fundamentals of Financial Management (3)
- IERT 22006 Economic Decision Analysis (3)
- M&IS 24163 Principles of Management (3)
- 34060 Operations Management (3)
- 34165 Dynamics of Leadership (3)
- 34180 Human Resource Management (3)
- **44150 Total Quality Management (3)**
- MFGT 12010 Safety in the Workplace (2)
- SOC 42564 Bureaucratic Organizations (3)
- TECH 43080 Industrial and Environmental Safety (3)

**Electrical/Electronics Option**

**III. Writing-Intensive Requirement**
Students must complete a one-course writing-intensive requirement and earn minimum C (2.0) grade. This requirement in this major is fulfilled with TECH 31000, 33056 or M&IS 44150. A complete list of writing-intensive courses is on Pages 93-95.

**IV. Major Requirements**
Credits for Associate of Applied Science in Electrical/Electronics Engineering Technology.

**V. Technology Courses**

2007-2008 Kent State University Undergraduate Catalog
VI. Additional Major Requirements .................................. 6-8
Choose from the following: ........................................... 3
ENG 20002 Introduction to Technical Writing (3)
ITAP 26638 Business Communication (3)
Choose from the following: ........................................... 3-5
MATH 11012 Intuitive Calculus (3)
12002 Analytic Geometry and Calculus I (5)
19002 Technical Mathematics II (4)

VII. General Electives .................................................. 19-21
Minimum 12 credit hours upper-division. Elective choices must include two courses of management practice; course prerequisites must be met.
Management Practice
ACCT 33063 Cost Control and Analysis for Management (3)
BMRT 11000 Introduction to Business (3)
11009 Introduction to Management Technology (3)
21005 Purchasing and Supply Management (3)
21006 Human Resources Management (3)
21008 Case Studies in Management Technology (3)
21009 Seminar in Management Technology (3)
21011 Fundamentals of Financial Management (3)
IERT 22006 Economic Decision Analysis (3)
M&IS 24163 Principles of Management (3)
34060 Operations Management (3)
34165 Dynamics of Leadership (3)
34180 Human Resource Management (3)
**** 44150 Total Quality Management (3)
MFGT 12010 Safety in the Workplace (2)
SOC 42564 Bureaucratic Organizations (3)
TECH 43080 Industrial and Environmental Safety (3)

TOTAL 121

*MATH 11011 and 11022 may be substituted for MATH 12001.
**Course fulfills diversity requirement.
***PHY 12201 and 12202 are approved as an exception to the Liberal Education Requirements (LER).
****Course fulfills writing-intensive requirement.

Graduation from the program requires an approved associate degree. Minimum 2.00 overall GPA required for graduation with minimum 2.00 GPA in upper-division TECH courses. Upper-division technology electives must be chosen with faculty advisor. The courses chosen to fulfill the curriculum must satisfy university diversity requirements.
### College of Technology

31032 Power Technology (3)
31065 Cast Metals (3)
32002 Materials and Processes II (3)
33016 PC Network Engineering (3)
33033 Hydraulics and Pneumatics (3)
33363 Metallurgy and Materials Science (3)
34002 Advanced CAD II (3)
43080 Industrial and Environmental Safety (3)
43220 Electrical Machinery (3)
43550 Computer Aided Manufacturing (3)

Choose from the following: ........................................ 3

TECH****31000 Cultural Dynamics of Technology (3)

*** 33056 Cooperative Education (3)

### VI. Additional Major Requirements .................................. 6-8
Choose from the following: ........................................ 3

ENG 20002 Introduction to Technical Writing (3)
ITAP 26638 Business Communication (3)

Choose from the following: ........................................ 3-5

MATH 11012 Intuitive Calculus (3)
12002 Analytic Geometry and Calculus I (5)
19002 Technical Mathematics II (4)

### VII. General Electives ................................................. 16-18

Minimum 6 credit hours upper-division. Elective choices must include three courses from management concepts or practice with a maximum of one course from concepts.

#### Management Concepts

ACCT 23020 Introduction to Financial Accounting (3)
ACTT 11001 Accounting II - Managerial (4)
BMRT 21000 Business Law and Ethics I (3)
COMM 25863 Business and Professional Communication (3)

Choose from the following: ........................................ 3-5

35550 Small Group Communication (3)
35864 Organizational Communication (3)

MATH 11022 Analytic Geometry and Calculus II (5)

### Plastics Manufacturing Option

**Course fulfills diversity requirement.

**Course fulfills writing-intensive requirement.

Graduation from the program requires an approved associate degree. Minimum 2.00 overall GPA required for graduation with minimum 2.00 GPA in upper-division TECH courses. Upper-division technology electives must be chosen with faculty advisor. The courses chosen to fulfill the curriculum must satisfy university diversity requirements.

#### I. General College or University Requirements ..................... 1

US 10097 First Year Colloquium .................................. 1

#### II. Liberal Education Requirements .................................. 40

A complete list of Liberal Education Requirements (LER) courses is on Pages 85-87.

##### Composition

ENG 11011 College Writing I .................................... 3
21011 College Writing II .................................... 3

##### Mathematics and Critical Reasoning

MATH*12001 Algebra and Trigonometry ......................... 4

##### Humanities and Fine Arts

Minimum one course from humanities category and minimum one course from fine arts category.

PHIL**21001 Introduction to Ethics ................................ 3

##### Social Sciences

Must be selected from two curricular areas.

Edward Sciences .................................................. 3

##### Basic Sciences .................................................. 9

Must include one laboratory course.

##### Additional LER Courses

EDUC 15000 Introduction to Human Communication ............. 3

Choose from the following: .................................... 3

PHIL 11002 Principles of Thinking (3)

LER course from above categories (3)
Diversity Requirement

Students must complete a two-course diversity requirement, consisting of one with a domestic (U.S.) focus and one with a global focus. The global-focus course is fulfilled with LER humanities PHIL 21001. A complete list of diversity courses is on Pages 89-91.

Writing-Intensive Requirement

Students must complete a one-course writing-intensive requirement and earn minimum C (2.0) grade. This requirement in this major is fulfilled with M&IS 44150. A complete list of writing-intensive courses is on Pages 93-95.

Major Requirements

Credits from Associate of Applied Science in Plastics Manufacturing Technology.

Technology Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TECH 31020</td>
<td>Automated Manufacturing</td>
<td>3</td>
</tr>
<tr>
<td>TECH 31032</td>
<td>Power Technology</td>
<td>3</td>
</tr>
<tr>
<td>32002</td>
<td>Materials and Processes II</td>
<td>3</td>
</tr>
<tr>
<td>33363</td>
<td>Metallurgy and Materials Science</td>
<td>3</td>
</tr>
<tr>
<td>43080</td>
<td>Industrial and Environmental Safety</td>
<td>3</td>
</tr>
</tbody>
</table>

Additional Major Requirements

Choose from the following: 3-5 courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 20002</td>
<td>Introduction to Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td>ITAP 26638</td>
<td>Business Communication</td>
<td>3</td>
</tr>
<tr>
<td>MATH 11012</td>
<td>Intuitive Calculus</td>
<td>3</td>
</tr>
<tr>
<td>12002</td>
<td>Analytic Geometry and Calculus I</td>
<td>5</td>
</tr>
<tr>
<td>19002</td>
<td>Technical Mathematics II</td>
<td>4</td>
</tr>
</tbody>
</table>

Management Practice

Choose from the following: 3 courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 33063</td>
<td>Cost Control and Analysis for Management</td>
<td>3</td>
</tr>
<tr>
<td>BMRT 11000</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>11009</td>
<td>Introduction to Management Technology</td>
<td>3</td>
</tr>
<tr>
<td>21005</td>
<td>Purchasing and Supply Management</td>
<td>3</td>
</tr>
<tr>
<td>21006</td>
<td>Human Resources Management</td>
<td>3</td>
</tr>
<tr>
<td>21008</td>
<td>Case Studies in Management Technology</td>
<td>3</td>
</tr>
<tr>
<td>21009</td>
<td>Seminar in Management Technology</td>
<td>3</td>
</tr>
<tr>
<td>21011</td>
<td>Fundamentals of Financial Management</td>
<td>3</td>
</tr>
<tr>
<td>IERT 22006</td>
<td>Economic Decision Analysis</td>
<td>3</td>
</tr>
<tr>
<td>M&amp;IS 24163</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>34060</td>
<td>Operations Management</td>
<td>3</td>
</tr>
<tr>
<td>34165</td>
<td>Dynamics of Leadership</td>
<td>3</td>
</tr>
<tr>
<td>34180</td>
<td>Human Resource Management</td>
<td>3</td>
</tr>
<tr>
<td>44150</td>
<td>Total Quality Management</td>
<td>3</td>
</tr>
<tr>
<td>MFST 12010</td>
<td>Safety in the Workplace</td>
<td>2</td>
</tr>
<tr>
<td>SOC 42564</td>
<td>Bureaucratic Organizations</td>
<td>3</td>
</tr>
</tbody>
</table>

Total: 121 credits

Graduation from the program requires an approved associate degree. Minimum 2.00 overall GPA required for graduation with minimum 2.00 GPA in upper-division TECH courses. The courses chosen to fulfill the curriculum must satisfy university diversity and writing-intensive course requirements.

The “2+2” Concentration for Associate Degree Graduates

The “2+2” concentration in industrial technology provides a course of study for associate’s degree graduates who desire to complete a Bachelor of Science in Industrial Technology. It allows graduates to apply all or nearly all of the coursework completed in the associate’s degree program toward the B.S. degree, broadens students’ backgrounds and allows the students to gain additional technical and managerial depth. A unique feature of the Kent State University program is its flexibility, including 15 upper-division technical elective hours that the students select in consultation with a College of Technology advisor.

Industrial Technology Option

General College or University Requirements

US 10097 First Year Colloquium

Liberal Education Requirements

A complete list of Liberal Education Requirements (LER) courses is on Pages 85-87.

Composition

ENG 11011 College Writing I

Mathematics and Critical Reasoning

MATH 12001 Algebra and Trigonometry

* MATH 12002 Analytic Geometry and Calculus I

Humanities and Fine Arts

Minimum one course from humanities category and minimum one course from fine arts category.

Social Sciences

Must be selected from two curricular areas.

ECON 22060 Principles of Microeconomics

LER social sciences course

Basic Sciences

Choose from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>13001</td>
<td>General College Physics I</td>
<td>5</td>
</tr>
<tr>
<td>13002</td>
<td>General College Physics II</td>
<td>5</td>
</tr>
</tbody>
</table>

or
### College of Technology

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHY** 12201</td>
<td>Technical Physics I (3)</td>
<td></td>
</tr>
<tr>
<td>** 12202</td>
<td>Technical Physics II (4)</td>
<td></td>
</tr>
<tr>
<td>**</td>
<td>Basic Science LER courses (3)</td>
<td></td>
</tr>
</tbody>
</table>

**Additional LER Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 15000</td>
<td>Introduction to Human Communication</td>
<td>3</td>
</tr>
<tr>
<td>ECON 22061</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
</tbody>
</table>

**Diversity Requirement**

Students must complete a two-course diversity requirement, consisting of one with a domestic (U.S.) focus and one with a global focus. One course must come from the LER list; the second course may be taken as a second LER, in the major area or in a minor as a general elective. A complete list of diversity courses is on Pages 89-91.

**III. Writing-Intensive Requirement**

Students must complete a one-course writing-intensive requirement and earn minimum C (2.0) grade. This requirement in this major may be fulfilled with option M&IS 44150. A complete list of writing-intensive courses is on Pages 93-95.

**IV. Major Requirements**

Courses accepted by College of Technology as transfer credit.

**V. Additional Major Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 20002</td>
<td>Introduction to Technical Writing</td>
<td>3</td>
</tr>
</tbody>
</table>

**VI. Technical Electives (Upper-Division)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>M&amp;IS 44150</td>
<td>Total Quality Management (3)</td>
<td></td>
</tr>
<tr>
<td>MFGT 12010</td>
<td>Safety in the Workplace (2)</td>
<td></td>
</tr>
<tr>
<td>SOC 42564</td>
<td>Bureaucratic Organizations (3)</td>
<td></td>
</tr>
<tr>
<td>TECH 43080</td>
<td>Industrial and Environmental Safety (3)</td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL 126**

*An equivalent course may be substituted for MATH 12001 or 12002.

**Technical electives must be chosen in consultation with a faculty advisor.**

**Course fulfills writing-intensive requirement.**

Minimum of 27 upper-division hours required (with associate’s degree).

The courses chosen to fulfill the curriculum must satisfy university diversity and writing-intensive course requirements.

American Assembly of Collegiate Schools of Business accreditation standards prohibit nonbusiness majors from taking more than 25 percent of their degree requirements in business courses. Therefore, no more than 30 semester credit hours may be counted toward stated degree requirements.
Diversity Requirement
Students must complete a two-course diversity requirement, consisting of one with a domestic (U.S.) focus and one with a global focus. One course must come from the LER list; the second course may be taken as a second LER, in the major area or in a minor as a general elective. A complete list of diversity courses is on Pages 89-91.

III. Writing-Intensive Requirement
Students must complete a one-course writing-intensive requirement and earn minimum C (2.0) grade. This requirement in this concentration is fulfilled with TECH 33056. A complete list of writing-intensive courses is on Pages 93-95.

IV. Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACTT 11000 Accounting I: Financial</td>
<td>4</td>
</tr>
<tr>
<td>BMRT 11000 Introduction to Business</td>
<td></td>
</tr>
<tr>
<td>11009 Introduction to Management Technology</td>
<td></td>
</tr>
<tr>
<td>21000 Business Law and Ethics I</td>
<td></td>
</tr>
<tr>
<td>21004 Introduction to Business Statistics</td>
<td></td>
</tr>
<tr>
<td>21006 Human Resources Management</td>
<td></td>
</tr>
<tr>
<td>21008 Case Studies in Management Technology</td>
<td></td>
</tr>
<tr>
<td>21009 Seminar in Management Technology</td>
<td></td>
</tr>
<tr>
<td>21011 Fundamentals of Financial Management</td>
<td></td>
</tr>
<tr>
<td>21050 Fundamentals of Marketing Technology</td>
<td></td>
</tr>
<tr>
<td>21052 Professional Selling Techniques</td>
<td></td>
</tr>
<tr>
<td>TECH**20002 Materials and Processes</td>
<td></td>
</tr>
<tr>
<td>31016 Manufacturing Technology</td>
<td></td>
</tr>
<tr>
<td>31020 Automated Manufacturing</td>
<td></td>
</tr>
<tr>
<td>*** 33056 Cooperative Education—</td>
<td></td>
</tr>
<tr>
<td>Professional Development</td>
<td></td>
</tr>
<tr>
<td>43080 Industrial and Environmental Safety</td>
<td></td>
</tr>
<tr>
<td>Technology elective (upper division)</td>
<td></td>
</tr>
</tbody>
</table>

V. Technical Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TECH**20002 Materials and Processes</td>
<td></td>
</tr>
<tr>
<td>31016 Manufacturing Technology</td>
<td></td>
</tr>
<tr>
<td>31020 Automated Manufacturing</td>
<td></td>
</tr>
<tr>
<td>*** 33056 Cooperative Education—</td>
<td></td>
</tr>
<tr>
<td>Professional Development</td>
<td></td>
</tr>
<tr>
<td>43080 Industrial and Environmental Safety</td>
<td></td>
</tr>
<tr>
<td>Technology elective (upper division)</td>
<td></td>
</tr>
</tbody>
</table>

VI. Additional Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG***20002 Introduction to Technical Writing</td>
<td></td>
</tr>
<tr>
<td>MATH 11022 Trigonometry</td>
<td></td>
</tr>
<tr>
<td>Choose from the following:</td>
<td></td>
</tr>
<tr>
<td>MATH 11012 Intuitive Calculus (3)</td>
<td></td>
</tr>
<tr>
<td>12002 Analytical Geometry and Calculus I (5)</td>
<td></td>
</tr>
<tr>
<td>19002 Technical Mathematics II (4)</td>
<td></td>
</tr>
</tbody>
</table>

VII. Business Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 23021 Introduction to Managerial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>COMT 11000 Introduction to Computer Systems</td>
<td></td>
</tr>
<tr>
<td>FIN 36053 Business Finance</td>
<td></td>
</tr>
<tr>
<td>M&amp;IS 34060 Operations Management</td>
<td></td>
</tr>
<tr>
<td>MKTG 35025 Supply Chain Management</td>
<td></td>
</tr>
<tr>
<td>Business elective (upper division)</td>
<td></td>
</tr>
</tbody>
</table>

*Students may substitute MATH 11011 and 11022 for MATH 12001; and substitute MATH 11012 for MATH 12002.
**TECH 20002 is an associate degree requirement and does not apply to this B.S. degree program. It is, however, a prerequisite to TECH 31016. Students may substitute MERT 12004 Manufacturing Processes for TECH 20002 although they should be aware that TECH 13580 Engineering Graphics I should be taken before MERT 12004.
***Course fulfills writing-intensive requirement.
****Students may substitute ITAP 26638 Business Communications for ENG 20002.

MINORS IN THE COLLEGE OF TECHNOLOGY

Electronic Technology Minor

<table>
<thead>
<tr>
<th>Prerequisite</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 12001 Algebra and Trigonometry (4) or equivalent</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TECH 20004 Electrical Circuits I</td>
<td></td>
</tr>
<tr>
<td>23224 Electrical Circuits II</td>
<td></td>
</tr>
<tr>
<td>33220 Analog Electronics</td>
<td></td>
</tr>
<tr>
<td>33222 Digital Designs and Applications</td>
<td></td>
</tr>
<tr>
<td>33580 Engineering Graphics for Electronics</td>
<td></td>
</tr>
<tr>
<td>43026 Microprocessor Systems</td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL 18**

Flight Technology Minor

<table>
<thead>
<tr>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>TECH 15740 Elements of Flight Theory</td>
<td></td>
</tr>
<tr>
<td>15741 Private Pilot Flight</td>
<td></td>
</tr>
<tr>
<td>25250 Elements of Aviation Weather</td>
<td></td>
</tr>
<tr>
<td>25743 Commercial Pilot Flight I</td>
<td></td>
</tr>
<tr>
<td>35644 Instrument Flight Theory</td>
<td></td>
</tr>
<tr>
<td>35645, Instrument Pilot Flight</td>
<td></td>
</tr>
<tr>
<td>35647 Commercial Pilot Flight II</td>
<td></td>
</tr>
<tr>
<td>35746 Commercial Pilot Theory</td>
<td></td>
</tr>
<tr>
<td>35747 Commercial Pilot Flight III</td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL 24**

Minimum 2.0 GPA overall required for minor. Students must also have a 2.0 GPA overall to register for flight courses.
## Technology Minor

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH*12001</td>
<td>Algebra and Trigonometry</td>
<td>4</td>
</tr>
<tr>
<td>TECH 10001</td>
<td>Information Technology</td>
<td>3</td>
</tr>
<tr>
<td>13580</td>
<td>Engineering Graphics I</td>
<td>3</td>
</tr>
<tr>
<td>20001</td>
<td>Energy/Power</td>
<td>3</td>
</tr>
<tr>
<td>20002</td>
<td>Materials and Processes</td>
<td>3</td>
</tr>
<tr>
<td>21021</td>
<td>Survey of Electricity and Electronics</td>
<td>4</td>
</tr>
<tr>
<td>23581</td>
<td>Computer-Aided Engineering Graphics</td>
<td>3</td>
</tr>
<tr>
<td>31000</td>
<td>Cultural Dynamics of Technology</td>
<td>3</td>
</tr>
<tr>
<td>Technology electives</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td>28</td>
</tr>
</tbody>
</table>

**If MATH 12001 has been taken previously, these credit hours must be completed as technology electives.**

## MINORS IN OTHER COLLEGES/SCHOOLS

In addition to the departmental minors, undergraduate students in the College of Technology can select from a wide range of minors offered by other colleges and schools at Kent State University.

### The Arts

The following minors within the College of the Arts are available to all undergraduate students at Kent State University. Please see Pages 126-127 for program requirements.

- Art History
- Crafts
- Dance*
- Music*
- Studio Art
- Theatre

*Auditions are required before acceptance into the dance and music minors.

### Arts and Sciences

The following minors within the College of Arts and Sciences are available to all undergraduate students at Kent State University. Please see Pages 207-230 for program requirements.

- African Studies
- American Sign Language
- American Studies
- Ancient, Medieval and Renaissance Studies
- Anthropology
- Applied Conflict Management
- Applied Mathematics
- Asian Studies
- Biological Sciences
- British Studies
- Business French
- Business German
- Business Russian
- Business Spanish
- Cartography
- Chemistry
- Classics
- Climatology
- Comparative Literature
- Computer Science
- Economics
- English
- French
- Geographic Information Science
- Geography
- Geology
- German
- German Studies
- Greek
- Health Care Ethics
- Hellenic Studies
- History
- Jewish Studies
- Justice Studies
- Latin
- Latin American Studies
- Lesbian, Gay, Bisexual and Transgendered Studies
- Lithuanian Studies
- Mathematics
- North Atlantic Security Studies
- Pan-African Studies
- Paralegal Studies
- Philosophy
- Physics
- Political Science
- Pre-Law
- Psychology
- Religion Studies
- Romanian Studies
- Russian
- Russian Studies
- Sociology
- Spanish
- Urban Studies and Planning
- Web Design and Programming
- Women’s Studies
- The Writing Minor
Business Administration
The following minors within the College of Business Administration are available to all undergraduate students at Kent State University. Please see Pages 248-254 for program requirements.

Accounting
Business
Computer Information Systems
Economics
Entrepreneurship
Finance
Human Resource Management
International Business
Management
Marketing
Military Studies

Communication and Information
The following minors within the College of Communication and Information are available to all undergraduate students at Kent State University. Please see Pages 263-265 for program requirements.

Advertising
Communication Studies

Design
Electronic Media
Media Literacy
Photo Illustration
Public Relations
Visual Journalism
Web Design and Programming

Education, Health, and Human Services
The following minors within the College of Education, Health, and Human Services are available to all undergraduate students at Kent State University. Please see Pages 342-345 for program requirements.

Athletic Coaching
Community Health Education
Family, Food and Nutritional Studies
Gerontology
Hospitality Management
Human Sexuality
Recreation and Park Management
Sport Administration
Sports Medicine
Tourism Management