College of Technology

College of Technology

College Overview

The Purdue Polytechnic Institute, previously named the College of Technology, is one of 10 colleges at Purdue University offering undergraduate and graduate degrees. The college includes seven academic schools, departments, and divisions:

- Aviation Technology
- Engineering Technology
- Computer and Information Technology
- Computer Graphics Technology
- Construction Management Technology
- Military Science & Technology
- Technology Leadership & Innovation.

As one of the Purdue Moves initiatives, the college is undergoing a major transformation that affects all facets of the college, the scope of which is so profound that a name change was warranted. The Polytechnic name best embodies the characteristics, elements, and philosophy of the transformed college and readily represents a distinctive brand that highlights the unique nature of the learning experience.

The academic programs combine theory-based applied learning, team-based projects, integrated humanities studies, competency-based credentialing, and a series of experiential components such as industry-sponsored senior capstone projects, internships, global immersions, and certification-earning activities. The Polytechnic learning experience is designed to produce graduates who not only have deep technical knowledge and applied skills in their chosen discipline, but also possess problem-solving, critical thinking, communications, and leadership skills sought by industries and communities.

Research within the college also continues to expand and strengthen, with five signature areas propelling the college to the technological and scientific forefront:

- Bio-Inspired Sustainability
- Robotics, Manufacturing, and Autonomy
- Closed-Loop Healthcare
- Innovative STEM Education
- Human Scale Computing

Whether it's delivering a transformed learning experience to produce industry-ready graduates who have the skills for today's economy, or conducting use-inspired research to advance the evolution of technology and solve real-world challenges, the Purdue Polytechnic Institute aims to be a global leader.

Admissions


Admission to Teacher Education
Advising

Students in the College of Technology must meet with their advisor at least once per semester.

Meeting with your Advisor

- Some majors have group advising sessions, others have individual advising appointments or walk-in hours.
- Your advisor will email you with information about the procedure used in your department.

Preparing for your Advising Session

- Determine how many credit hours you want to take.
- Compile a list of courses and alternates that you would like to take.
- Determine that you meet all the prerequisites for the courses you want to take.
- Once the Schedule of Classes is available, make sure course times work together.

Topics Typically Covered in an Advising Session

- Progress toward your degree.
- Appropriate courses for the next semester.
- Academic standing.
- Internships, career fairs, and other non-academic opportunities.
- Registration PIN release (PINs will not be released by phone, email or text message).
- Other questions a student may have.

Contact Information

Purdue Polytechnic Institute
West Lafayette, IN 47907
(765) 494-4935
E-mail: choosetechnology@purdue.edu

Technology Statewide

The Purdue College of Technology Statewide is a unique partnership between education and business, industry and government. Statewide Technology was created to extend Purdue's existing technology programs across the state to meet Indiana's need for educated technologists, technicians and innovators in communities where highly skilled workers with problem-solving skills are in great demand. Statewide Technology also provides a mechanism for training presently employed people in state-of-the-industry technology, as well as meeting the needs of recent high school graduates who, for whatever reason, don't enroll at West Lafayette or a regional campus. In cooperation with community, educational and business/industrial leaders, Purdue is able to identify local educational needs and develop programs to meet these needs virtually anywhere in the state.
Through cooperative efforts, arrangements are made with local industries and other public and independent institutions to provide support courses, services and facilities. Local business and industrial representatives are involved in the planning, development and implementation of the program through business and industrial committees. All technical courses are taught by Purdue faculty.

Statewide Technology represents a direct academic and administrative extension of the College of Technology at the West Lafayette campus. Although usually located on the campus of another university, academic, administrative and financial control rests with Purdue.

A technology advisory council, representative of key executives of business, industry, government and education, counsels on the development of the overall program. This partnership assists in the identification of general needs.

**Registration.** Admitted students are enrolled at each Purdue location.

**Fees.** Fees are charged per credit hour and vary by location. Fees are either set to match West Lafayette fees or those of the host institution at the location.

**Degrees.** All course credits apply toward a Purdue University degree and are transferable to other Purdue locations.

**Counseling Services.** Student counseling services are available at each Purdue program location.

**Program Design.** The programs are designed to prepare technologists for highly technical positions. Both part-time and full-time students are encouraged to enroll. All programs are of the highest quality and are operated in close cooperation with local business and industrial advisory committees. All programs follow the curricula offered at West Lafayette. Technical courses are similar to those on the West Lafayette campus, follow the same learning outcomes and are taught by Purdue faculty members.

The Statewide Technology program includes locations in Anderson, Columbus, Greensburg, Indianapolis, Kokomo, Lafayette, New Albany, Richmond, South Bend and Vincennes. Other communities in Indiana may be served as needs arise.

For Program Listings and Locations click Program Listings and Locations.

### College of Technology Administration

#### Overview

**Propel ideas into reality**

Welcome to the fast lane. At the College of Technology, you'll discover how to harness the power of technology to have an immediate impact. From making a smartphone brilliant to creating video games to improve a child's health, technology is the springboard for faster, greener and healthier solutions.

In our team-based labs you'll test ideas, take things apart and put them back together - only better. You'll learn side-by-side with professors who have worked in the industry and thrive on combining theory, imagination and real-world application. In this innovative environment, you'll learn by doing - gaining deep technical knowledge and applied skills in your chosen discipline as well as the problem-solving, critical-thinking, communication and leadership skills employers desire.

Companies like Amazon, Boeing, Caterpillar, Motorola, Honeywell Aerospace and Rolls-Royce know us well - they come knocking for our big-picture-thinking leaders.
College of Technology Website

Faculty

https://polytechnic.purdue.edu/college-directory.

Contact Information

For more information on the College of Technology, please visit https://polytechnic.purdue.edu/.

They can be reached at 765-494-4935 or at choosetechnology@purdue.edu.

Graduate Information

For Graduate Information please see Technology Administration Graduate Program Information.

Minor

Aerospace Studies Minor

14 Hours

(M) AEST

50% of credits for CLA minors must come from Purdue University

A Grade of "C" or better must be earned in any course to fulfill a minor requirement.

Requirements for the Minor

A. The following courses are required (14 credits)

- AFT 23000 - The Evolution Of USAF Air And Space Power I
- AFT 24000 - The Evolution Of USAF Air And Space Power II
- AFT 35100 - Air Force Leadership Studies I
- AFT 36100 - Air Force Leadership Studies II
- AFT 47100 - National Security Affairs I
- AFT 48100 - National Security Affairs II

Total Hours (14 credits)

AS 30000 level courses may be taken in the same semester as AS 40000 level courses; (requires a waiver from AFROTC HQs.)
Military Science and Leadership Minor

15 Hours
(M)MILT

A grade of "C" or better must be earned in any course to fulfill a Minor Requirement.

Requirements for the Minor

A. The following courses are required* (12 credits)

- MSL 30100 - Leadership And Problem Solving
- MSL 30200 - Leadership And Ethics
- MSL 40100 - Leadership And Management
- MSL 40200 - Officership

Note

MSL 49000 - Directed Studies In Military Science, may be substituted for any above class with approval of department head.

B. Select one of the following courses** (3 credits)

- HIST 33000 - History Of The British Empire And Commonwealth, 1783 To 1960
- HIST 33100 - Great Figures In History
- HIST 35500 - History Of American Military Affairs
- HIST 38600 - History Of American Foreign Relations
- HIST 42500 - Mid-East History and Culture - Credit Hours: 3.00
- HIST 42600 - History of the Mid-East and North Africa - Credit Hours: 3.00
- HIST 43900 - Communist China
- HIST 54500 - Mid-East and the 20th Century - Credit Hours: 3.00
- PHIL 33100 - Religions of the West, Judaism, Christianity, Islam - Credit Hours: 3.00
- POL 23100 - Introduction To United States Foreign Policy
- POL 23700 - Modern Weapons And International Relations
- POL 43700 - Military Affairs - Credit Hours: 3.00
- POL 43900 - United States Foreign Policy Making

Note

**Another course can be substituted with approval of department head.

Total Hours (15 credits)
Expired Course

Any course without a link to its description is one that has been expired. However, this course could fulfill the degree requirement historically.

Naval Science Minor

15 Hours
(M)NAVL

A Grade of "C" or better must be earned in any course to fulfill a minor requirement.

Requirements for the Minor

A. The following courses are required (12 credits)

- NS 11000 - Introduction To Naval Science
- NS 21300 - Sea Power And Maritime Affairs
- NS 21400 - Fundamentals Of Leadership
- NS 41300 - Naval Leadership, Management, And Ethics

B. Select One (1) of the following courses (3 credits)

- NS 21200 - Naval Weapons Systems
- NS 31000 - Navigation
- NS 31100 - Naval Operations
- NS 33000 - Evolution Of Warfare
- NS 35000 - Naval Ship Systems
- NS 44000 - Amphibious Warfare And Leadership

Total Hours (15 credits)

Department of Aviation Technology

Overview

The Department of Aviation Technology is widely recognized as a leader in aviation education. Students learn from faculty with rich industry experience and ongoing research that will improve the future of aviation. From air traffic control to NextGen aviation research, the department is leading the way to produce the best graduates and best knowledge in the aviation and
aerospace industry. A part of the department's success is its top-of-the-line fleet that includes almost two dozen airplanes and several virtual training simulators.

In addition to the four year undergraduate degrees, the Department of Aviation Technology offers a program to qualifying undergraduates who wish to earn both their bachelor's and master's degrees in five years.

**Faculty**

https://polytechnic.purdue.edu/departments/aviation-technology/directory

**Contact Information**

*Department of Aviation Technology*
1401 Aviation Drive
West Lafayette IN 47907-2015
Phone: 765.494.5782
Email: atinfo@purdue.edu
Fax: 765.494.2305

**Graduate Information**

For Graduate Information please see Aviation Technology Graduate Program Information.

**Baccalaureate**

**Aeronautical Engineering Technology, BS**

**About the Program**

The curriculum of the Aeronautical Engineering Technology program focuses on a student's ability to think critically, manage projects, and be successful as part of an engineering team. Students learn alongside other aviation technology majors, providing a broader perspective of the aerospace industry and creating opportunities for cross-training.

With these skills, Aeronautical Engineering Technology graduates can become leaders in a variety of fields: aerospace and spacecraft manufacturing, airlines repair engineering, aerospace leadership development programs, and corporate flight operations management. The industry has a global reach and provides many avenues in which Purdue's graduates can make significant contributions. Communication skills are highly valued as well, because many potential career paths require coordination with machinists, mechanics, regulators, other engineers and customers.

The program is designed around small, close-knit classes that feature individualized attention combined with the diversity and activities of a large university.

This program can be completed in three years; ask an academic advisor how.
The aeronautical engineering technology program is accredited by the Engineering Technology Accreditation Commission of ABET, www.abet.org. The bachelor's degree in aeronautical engineering technology is accredited by Aviation Accreditation Board International (AABI).

Aeronautical Engineering Technology Website

Summary of Program Requirements

The Summary of Program Requirements for Aeronautical Engineering Technology is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

TAENT-BS
120 credits for graduation

Departmental/Program Major Courses (116 credits)

Required Major Courses (59 credits)

- AT 10000 - Introduction To Aviation Technology
- AT 10200 - Aviation Business
- AT 10300 - Aerospace Vehicle Propulsion And Tracking Systems
- AT 10600 - Basic Aircraft Science
- AT 20200 - Aerospace Vehicle Systems Design, Analysis And Operations
- AT 20300 - Aviation Operations Management
- AT 49600 - Applied Research Proposal
- AT 49700 - Applied Research Project
- AT 20802 - Aircraft Materials
- AT 26502 - Aircraft Electrical Systems
- AT 26700 - Fixed And Rotary Wing Assemblies
- AT 27200 - Introduction To Composite Technology
- AT 27800 - Nondestructive Testing For Aircraft
- AT 30702 - Advanced Aircraft Systems
- AT 30802 - Aircraft Materials Processes
- AT 33502 - Avionics Systems
- AT 37002 - Advanced Aircraft Powerplants
- AT 37600 - Aircraft Gas Turbine Engine Technology I
- AT 38500 - Design Support Analysis
- AT 44502 - Aircraft Electronics
- AT 47600 - Aircraft Gas Turbine Engine Technology II

Other Departmental /Program Course Requirements (57 credits)
• Humanities Foundational Selective (satisfies Human Cultures Humanities for core) - Credit Hours: 3.00
• Behavioral/Social Science Foundational Selective (satisfies Human Culture Behavioral/Social Science for core) - Credit Hours: 3.00
• TECH 12000 - Design Thinking In Technology (satisfies Information Literacy Selective for core)
• PHYS 21800 - General Physics (satisfies Science Selective for core)
• Science Foundational Selective (satisfies Science Selective for core) - Credit Hours: 3.00

• ENGL 10600 - First-Year Composition (satisfies Written Communication for core) or
• ENGL 10800 - Accelerated First-Year Composition (satisfies Written Communication for core)

• COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core)
• MA 15800 - Precalculus- Functions And Trigonometry (satisfies Quantitative Reasoning Selective for core)
• MA 22100 - Calculus For Technology I (satisfies Quantitative Reasoning Selective for core)
• Economics Selective - Credit Hours: 3.00
• Advanced English Selective - Credit Hours: 3.00
• Technical Communications Selective - Credit Hours: 3.00
• STAT 30100 - Elementary Statistical Methods
• AT 20501 - Statics For Aerostructures
• CGT 16300 - Graphical Communication And Spatial Analysis
• Any University-approved minor or departmentally-approved thematic area of study - Credit Hours: 12.00

Electives (4 credits)

• Free Electives - Credit Hours: 4.00

University Core Requirements

• Human Cultures Humanities - UCC Selective
• Human Cultures Behavioral/Social Science - UCC Selective
• Information Literacy - TECH 12000 - Design Thinking In Technology
• Science #1 - PHYS 21800 - General Physics
• Science #2 - UCC Selective
• Science, Technology & Society Selective - TECH 12000 - Design Thinking In Technology

• Written Communication - ENGL 10600 - First-Year Composition or
• Written Communication - ENGL 10800 - Accelerated First-Year Composition

• Oral Communication - COM 11400 - Fundamentals Of Speech Communication
• Quantitative Reasoning - MA 15800 - Precalculus- Functions And Trigonometry
• Quantitative Reasoning - MA 22100 - Calculus For Technology I

Program Requirements

(201510)
Fall 1st Year

First Semester

- AT 10000 - Introduction To Aviation Technology
- AT 10200 - Aviation Business
- AT 10600 - Basic Aircraft Science
- TECH 12000 - Design Thinking In Technology
- MA 15800 - Precalculus- Functions And Trigonometry
- English Composition Selective - Credit Hours: 3.00

16 Credits

Spring 1st Year

Second Semester

- AT 20802 - Aircraft Materials
- CGT 16300 - Graphical Communication And Spatial Analysis
- COM 11400 - Fundamentals Of Speech Communication
- Humanities Foundational Selective - Credit Hours: 3.00
- Calculus Selective - Credit Hours: 3.00

14 Credits

Fall 2nd Year

Third Semester

- AT 10300 - Aerospace Vehicle Propulsion And Tracking Systems
- AT 20200 - Aerospace Vehicle Systems Design, Analysis And Operations
- AT 20300 - Aviation Operations Management
- AT 26700 - Fixed And Rotary Wing Assemblies
- AT 27200 - Introduction To Composite Technology

15 Credits

Spring 2nd Year

Fourth Semester

- AT 20501 - Statics For Aerostructures
- AT 26502 - Aircraft Electrical Systems
- AT 27800 - Nondestructive Testing For Aircraft
- PHYS 21800 - General Physics
- Free Elective - Credit Hours: 2.00

15 Credits

Fall 3rd Year

Fifth Semester

- AT 30702 - Advanced Aircraft Systems
- STAT 30100 - Elementary Statistical Methods
- Thematic Area Selective (AT 36302 for A&P) - Credit Hours: 3.00
- Behavioral/Social Science Found. Selective - Credit Hours: 3.00
- Science Foundational Selective - Credit Hours: 3.00

15 Credits

Spring 3rd Year

Sixth Semester

- AT 30802 - Aircraft Materials Processes
- AT 33502 - Avionics Systems
- AT 37600 - Aircraft Gas Turbine Engine Technology I
- AT 38500 - Design Support Analysis
- Advanced English Selective - Credit Hours: 3.00

15 Credits

Fall 4th Year

Seventh Semester

- AT 37002 - Advanced Aircraft Powerplants
- AT 44502 - Aircraft Electronics
- AT 47600 - Aircraft Gas Turbine Engine Technology II
- AT 49600 - Applied Research Proposal
- Economics Selective - Credit Hours: 3.00
- Free Elective - Credit Hours: 2.00
15 Credits

Spring 4th Year

Eighth Semester

• AT 49700 - Applied Research Project
• Thematic Area Selective (AT 37200 for A&P) - Credit Hours: 3.00
• Thematic Area Selective (AT 40200 for A&P) - Credit Hours: 3.00
• Thematic Area Selective (AT 47200 for A&P) - Credit Hours: 3.00
• Technical Communication Selective - Credit Hours: 3.00
• Globalization - Credit Hours: 0.00

15 Credits

Note

120 semester credits required for Bachelor of Science degree.

2.0 Graduation GPA required for Bachelor of Science degree.

Degree Requirements

The student is ultimately responsible for knowing and completing all degree requirements.

Degree Works is knowledge source for specific requirements and completion.

Purdue policy states that a student may attempt a course no more than three times. An attempt is defined as all courses displayed on a student transcript having grades of (including, but not limited to) A, B, C, D, E, F, WF, I and IF.

Aviation Technology Fall 2014 Curriculum Details

English Composition Selectives

• ENGL 10600 - First-Year Composition
• ENGL 10800 - Accelerated First-Year Composition

Calculus Selectives

• MA 16010 - Applied Calculus I
• MA 16100 - Plane Analytic Geometry And Calculus I
• MA 16500 - Analytic Geometry And Calculus I
• MA 22100 - Calculus For Technology I
• MA 22300 - Introductory Analysis I

Advanced English Selectives
• ENGL 42000 - Business Writing
• ENGL 42100 - Technical Writing

Economics Selectives
• ECON 21000 - Principles Of Economics
• ECON 25100 - Microeconomics
• ECON 25200 - Macroeconomics

Science, Humanities, and Behavioral/Social Science Selectives per UCC listing

Technical Communication Selectives
• COM 31500 - Speech Communication Of Technical Information
• COM 32000 - Small Group Communication
• COM 32400 - Introduction To Organizational Communication
• COM 41500 - Discussion Of Technical Problems

Thematic Area Selective Requirement
(Can be fulfilled by any of the following):
• Any University-approved minor
• 6 credit hours of 20000- or higher-level courses AND 6 credit hours of 30000 or higher-level courses from any of the following departments: AT, EAS, ECON, ENTR, HTM, IT, MGMT, OLS, or POL
• 12 consecutive credit hours in a Foreign Language

Aviation Management

Aviation Management selectives may consist of any 30000, 40000, or 50000 level AT prefixed courses.

Air Traffic Control Focus Area

Any student in the Aviation Management major is eligible to complete the FAA CTI program. A detailed explanation of the curriculum is available online at www.tech.purdue.edu/at. Required courses for the Air Traffic Control focus area are AT 28500, AT 36900, and AT 47900.
Airport Management

Recommended courses for the Airport Management focus area are AT 35900, AT 45100 and AT 45900.

Airline Management

Recommended courses for the Airline Management focus area are AT 33800 and AT 43800.

Airframe & Powerplant Certificate

AENT students are highly encouraged to enroll in the following courses in order to receive the FAA A&P certificate. These courses can be utilized to meet the Thematic Area graduation requirements.

- AT 36302 - Fundamentals Of Powerplant Systems
- AT 37200 - Aircraft Maintenance Practices
- AT 40200 - Aircraft Airworthiness Assurance
- AT 47200 - Advanced Composite Technology

Globalization Requirement

Due to the international nature of the aviation industry, all B.S. degree students must meet the department's globalization requirement through one of the following options:

- Complete any university-sponsored study abroad program lasting at least 7 days
- Complete an internship or approved international research project that involves at least 7 days of international travel
- Provide documentation of having lived/traveled outside the U.S. for at least 15 days after a student's 12th birthday.
- Complete or place out of the Level IV (12 credit hours) course in any 1 foreign language.

Critical Course

The ♦ course is considered critical. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

Aviation Management, BS

About the Program
Students in the program develop strong managerial and operational skills. Courses also stress critical thinking, decision-making, and communication abilities coupled with a technical background. Teamwork and responsibility are emphasized.

Students have the chance to work on research projects with airlines and airports to help them improve performance.

Purdue's aviation management program is recognized by the airport, aviation, airline, and aerospace industries for its high quality programs and graduates.

This program can be completed in three years; ask an academic advisor how.

Students in this program can apply to participate in five-year combined bachelor's/master's degree program in aviation technology.

The bachelor's degree in aviation management is accredited by Aviation Accreditation Board International (AABI).

Aviation Management Website

Summary of Program Requirements

The Summary of Program Requirements for Aviation Management is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

TAVMG-BS
120 credits for graduation

Departmental/Program Major Courses (111 credits)

Required Major Courses (59 credits)

- AT 10000 - Introduction To Aviation Technology
- AT 10200 - Aviation Business
- AT 10300 - Aerospace Vehicle Propulsion And Tracking Systems
- AT 10600 - Basic Aircraft Science
- AT 14400 - Private Pilot Lectures
- AT 20200 - Aerospace Vehicle Systems Design, Analysis And Operations
- AT 20300 - Aviation Operations Management
- AT 49800 - Aviation Technology Capstone
- AT 25200 - Aviation Projects
- AT 36201 - Aviation Operations
- AT 41200 - Aviation Finance
- AT 42101 - Managerial Economics In Aviation
- AT 47500 - Aviation Law
- AT 48100 - Aviation Safety Problems
- MGMT 20000 - Introductory Accounting
- MGMT 20100 - Management Accounting I
Aviation Management Selectives - Credit Hours: 12.00

Other Departmental /Program Course Requirements (52 credits)

- Humanities Foundational Selective (satisfies Human Cultures Humanities for core) - Credit Hours: 3.00
- Behavioral/Social Science Foundational Selective (satisfies Human Culture Behavioral/Social Science for core) - Credit Hours: 3.00
- TECH 12000 - Design Thinking In Technology (satisfies Information Literacy Selective for core)
- PHYS 21800 - General Physics (satisfies Science Selective for core)
- Science Foundational Selective (satisfies Science Selective for core) - Credit Hours: 3.00
- ENGL 10600 - First-Year Composition (satisfies Written Communication for core) or
- ENGL 10800 - Accelerated First-Year Composition (satisfies Written Communication for core)
- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core)
- MA 15800 - Precalculus- Functions And Trigonometry (satisfies Quantitative Reasoning Selective for core)
- MA 22100 - Calculus For Technology I (satisfies Quantitative Reasoning Selective for core)
- Economics Selective - Credit Hours: 3.00
- Advanced English Selective - Credit Hours: 3.00
- Technical Communications Selective - Credit Hours: 3.00
- STAT 30100 - Elementary Statistical Methods
- Any University-approved minor or departmentally-approved thematic area of study - Credit Hours: 12.00

Electives (9 credits)

- Free Electives - Credit Hours: 9.00

University Core Requirements

- Human Cultures Humanities - UCC Selective
- Human Cultures Behavioral/Social Science - UCC Selective
- Information Literacy - TECH 12000 - Design Thinking In Technology
- Science #1 - PHYS 21800 - General Physics
- Science #2 - UCC Selective
- Science, Technology & Society Selective - TECH 12000 - Design Thinking In Technology

- Written Communication - ENGL 10600 - First-Year Composition or
- Written Communication - ENGL 10800 - Accelerated First-Year Composition

- Oral Communication - COM 11400 - Fundamentals Of Speech Communication
- Quantitative Reasoning - MA 15800 - Precalculus- Functions And Trigonometry
- Quantitative Reasoning - MA 22100 - Calculus For Technology I

Program Requirements
Fall 1st Year

First Semester

- AT 10000 - Introduction To Aviation Technology
- AT 10600 - Basic Aircraft Science
- AT 14400 - Private Pilot Lectures
- MA 15800 - Precalculus - Functions And Trigonometry
- English Composition Selective - Credit Hours: 3.00

14 Credits

Spring 1st Year

Second Semester

- AT 10200 - Aviation Business
- AT 10300 - Aerospace Vehicle Propulsion And Tracking Systems
- TECH 12000 - Design Thinking In Technology
- PHYS 21800 - General Physics
- Calculus Selective - Credit Hours: 3.00

16 Credits

Fall 2nd Year

Third Semester

- AT 20300 - Aviation Operations Management
- AT 25200 - Aviation Projects
- MGMT 20000 - Introductory Accounting
- COM 11400 - Fundamentals Of Speech Communication
- Humanities Foundational Selective - Credit Hours: 3.00

15 Credits

Spring 2nd Year

Fourth Semester
- AT 20200 - Aerospace Vehicle Systems Design, Analysis And Operations
- AT 36201 - Aviation Operations
- MGMT 20100 - Management Accounting I
- Economics Selective - Credit Hours: 3.00
- Science Foundational Selective - Credit Hours: 3.00

15 Credits

Fall 3rd Year

Fifth Semester

- Aviation Management Selective - Credit Hours: 3.00
- Aviation Management Selective - Credit Hours: 3.00
- STAT 30100 - Elementary Statistical Methods
- Thematic Area Selective - Credit Hours: 3.00
- Behavioral / Social Science Selective - Credit Hours: 3.00

15 Credits

Spring 3rd Year

Sixth Semester

- AT 42101 - Managerial Economics In Aviation
- AT 47500 - Aviation Law
- Thematic Area Selective - Credit Hours: 3.00
- Advanced English Selective - Credit Hours: 3.00
- Free Elective - Credit Hours: 3.00

15 Credits

Fall 4th Year

Seventh Semester

- AT 41200 - Aviation Finance
- AT 48100 - Aviation Safety Problems
- Aviation Management Selective - Credit Hours: 3.00
- Thematic Area Selective - Credit Hours: 3.00
- Free Elective - Credit Hours: 3.00
15 Credits

Spring 4th Year

Eighth Semester

- AT 49800 - Aviation Technology Capstone
- Thematic Area Selective - Credit Hours: 3.00
- Aviation Management Selective - Credit Hours: 3.00
- Technical Communication Selective - Credit Hours: 3.00
- Free Elective - Credit Hours: 3.00
- Globalization - Credit Hours: 0.00

15 Credits

Note

120 semester credits required for Bachelor of Science degree.

2.0 Graduation GPA required for Bachelor of Science degree.

Degree Requirements

The student is ultimately responsible for knowing and completing all degree requirements.

Degree Works is knowledge source for specific requirements and completion.

Purdue policy states that a student may attempt a course no more than three times. An attempt is defined as all courses displayed on a student transcript having grades of (including, but not limited to) A, B, C, D, E, F, W, WF, I and IF.

Aviation Technology Fall 2014 Curriculum Details

English Composition Selectives

- ENGL 10600 - First-Year Composition
- ENGL 10800 - Accelerated First-Year Composition

Calculus Selectives

- MA 16010 - Applied Calculus I
- MA 16100 - Plane Analytic Geometry And Calculus I
• MA 16500 - Analytic Geometry And Calculus I
• MA 22100 - Calculus For Technology I
• MA 22300 - Introductory Analysis I

Advanced English Selectives

• ENGL 42000 - Business Writing
• ENGL 42100 - Technical Writing

Economics Selectives

• ECON 21000 - Principles Of Economics
• ECON 25100 - Microeconomics
• ECON 25200 - Macroeconomics

Science, Humanities, and Behavioral/Social Science Selectives per UCC listing

Technical Communication Selectives

• COM 31500 - Speech Communication Of Technical Information
• COM 32000 - Small Group Communication
• COM 32400 - Introduction To Organizational Communication
• COM 41500 - Discussion Of Technical Problems

Thematic Area Selective Requirement

(Can be fulfilled by any of the following):

• Any University-approved minor
• 6 credit hours of 20000- or higher-level courses AND 6 credit hours of 30000 or higher-level courses from any of the following departments: AT, EAS, ECON, ENTR, HTM, IT, MGMT, OLS, or POL
• 12 consecutive credit hours in a Foreign Language

Aviation Management

Aviation Management selectives may consist of any 30000, 40000, or 50000 level AT prefixed courses.

Air Traffic Control Focus Area

Any student in the Aviation Management major is eligible to complete the FAA CTI program. A detailed explanation of the curriculum is available online at www.tech.purdue.edu/at. Required courses for the Air Traffic Control focus area are AT 28500, AT 36900, and AT 47900.
Airport Management

Recommended courses for the Airport Management focus area are AT 35900, AT 45100 and AT 45900.

Airline Management

Recommended courses for the Airline Management focus area are AT 33800 and AT 43800.

Airframe & Powerplant Certificate

AENT students are highly encouraged to enroll in the following courses in order to receive the FAA A&P certificate. These courses can be utilized to meet the Thematic Area graduation requirements.

- AT 36302 - Fundamentals Of Powerplant Systems
- AT 37200 - Aircraft Maintenance Practices
- AT 40200 - Aircraft Airworthiness Assurance
- AT 47200 - Advanced Composite Technology

Globalization Requirement

Due to the international nature of the aviation industry, all B.S. degree students must meet the department's globalization requirement through one of the following options:

- Complete any university-sponsored study abroad program lasting at least 7 days
- Complete an internship or approved international research project that involves at least 7 days of international travel
- Provide documentation of having lived/traveled outside the U.S. for at least 15 days after a student's 12th birthday.
- Complete or place out of the Level IV (12 credit hours) course in any 1 foreign language.

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

Critical Course

The ♦ course is considered critical. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Professional Flight Technology, BS

About the Program
Professional flight is a program for those seeking a career as a commercial airline, corporate, or charter pilot. Students develop strong technical skills supported by critical thinking, decision-making, and communication abilities. Cockpit resource management, teamwork, and responsibility are emphasized. Students obtain their basic flight certificates and ratings by the end of the sophomore year. During the junior and senior years, students gain experience flying both turbine-powered aircraft and large airline-style simulators.

Purdue recently upgraded its fleet of airplanes to include an Embraer Phenom 100 jet and 16 Cirrus SR-20G3 single engine aircraft. The planes and their corresponding simulators (as well as a regional jet simulator) are equipped with a Garmin G1000 glass cockpit avionics system. Students in this program can apply to participate in five-year combined bachelor's/master's degree program in aviation technology.

This program can be completed in three years; ask an academic advisor how.

The bachelor's degree in professional flight is accredited by Aviation Accreditation Board International (AABI).

Flight (Professional Flight Technology) Website

Summary of Program Requirements

The Summary of Program Requirements for Professional Flight Technology is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

TAVFT-BS

120 credits for graduation

Departmental/Program Major Courses (112 credits)

Required Major Courses (60 credits)

- AT 10000 - Introduction To Aviation Technology
- AT 10200 - Aviation Business
- AT 10300 - Aerospace Vehicle Propulsion And Tracking Systems
- AT 14400 - Private Pilot Lectures
- AT 20200 - Aerospace Vehicle Systems Design, Analysis And Operations
- AT 20300 - Aviation Operations Management
- AT 49800 - Aviation Technology Capstone
- AT 14500 - Private Pilot Flight or
- AT 14502 - Private Pilot Flight Under Federal Aviation Regulations Part 141
- AT 21000 - Ground Trainer I
- AT 21100 - Ground Trainer II
- AT 22300 - Human Factors For Flight Crews
- AT 24300 - Commercial Flight I or
- AT 24302 - Commercial Flight I Under Federal Aviation Regulations Part 141
- AT 24800 - Commercial Flight II or
  AT 24802 - Commercial Flight II Under Federal Aviation Regulations Part 141
- AT 24900 - Instrument Flight Lectures
- AT 25300 - Instrument Flight or
  AT 25302 - Instrument Flight Under Federal Aviation Regulations Part 141
- AT 25400 - Commercial Flight Lectures
- AT 32500 - Instrument Flight
  or
  AT 32700 - Advanced Transport Flight Operations
- AT 35300 - Multi-Engine Flight
- AT 35400 - Turbine Flight Operations Lecture
- AT 38800 - Large Aircraft Systems
- AT 39500 - Turbine Aircraft Simulation Laboratory
- AT 39600 - Turbine Aircraft Flight Laboratory
- AT 41600 - Airline Indoctrination
- AT 47500 - Aviation Law
- AT 48700 - Transport Aircraft Simulation Laboratory

Other Departmental /Program Course Requirements (52 credits)

- Humanities Foundational Selective (satisfies Human Cultures Humanities for core) - Credit Hours: 3.00
- Behavioral/Social Science Foundational Selective (satisfies Human Culture Behavioral/Social Science for core) - Credit Hours: 3.00
- TECH 12000 - Design Thinking In Technology (satisfies Information Literacy Selective for core)
- PHYS 21800 - General Physics (satisfies Science Selective for core)
- Science Foundational Selective (satisfies Science Selective for core) - Credit Hours: 3.00
- ENGL 10600 - First-Year Composition (satisfies Written Communication for core) or
  ENGL 10800 - Accelerated First-Year Composition (satisfies Written Communication for core)
- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core)
- MA 15800 - Precalculus- Functions And Trigonometry (satisfies Quantitative Reasoning Selective for core)
- MA 22100 - Calculus For Technology I (satisfies Quantitative Reasoning Selective for core)
- Economics Selective - Credit Hours: 3.00
- Advanced English Selective - Credit Hours: 3.00
- Technical Communications Selective - Credit Hours: 3.00
- STAT 30100 - Elementary Statistical Methods
- Any University-approved minor or departmentally-approved thematic area of study - Credit Hours: 12.00

Electives (8 credits)

- Free Electives - Credit Hours: 8.00
University Core Requirements

- Human Cultures Humanities - UCC Selective
- Human Cultures Behavioral/Social Science - UCC Selective
- Information Literacy - TECH 12000 - Design Thinking In Technology
- Science #1 - PHYS 21800 - General Physics
- Science #2 - UCC Selective
- Science, Technology & Society Selective - TECH 12000 - Design Thinking In Technology
- Written Communication - ENGL 10600 - First-Year Composition or
  Written Communication - ENGL 10800 - Accelerated First-Year Composition
- Oral Communication - COM 11400 - Fundamentals Of Speech Communication
- Quantitative Reasoning - MA 15800 - Precalculus- Functions And Trigonometry
- Quantitative Reasoning - MA 22100 - Calculus For Technology I

Program Requirements

(201510)

Fall 1st Year

First Semester

- AT 10000 - Introduction To Aviation Technology
- AT 10200 - Aviation Business
- AT 14400 - Private Pilot Lectures
- AT 14500 - Private Pilot Flight or
- AT 14502 - Private Pilot Flight Under Federal Aviation Regulations Part 141
- MA 15800 - Precalculus- Functions And Trigonometry
- English Composition Selective - Credit Hours: 3.00

16 Credits

Spring 1st Year

Second Semester

- AT 10300 - Aerospace Vehicle Propulsion And Tracking Systems
- AT 24300 - Commercial Flight I or
- AT 24302 - Commercial Flight I Under Federal Aviation Regulations Part 141
• COM 11400 - Fundamentals Of Speech Communication
• TECH 12000 - Design Thinking In Technology
• Calculus Selective - Credit Hours: 3.00

14 Credits

Fall 2nd Year

Third Semester
• AT 20200 - Aerospace Vehicle Systems Design, Analysis And Operations
• AT 20300 - Aviation Operations Management
• AT 21000 - Ground Trainer I
• AT 22300 - Human Factors For Flight Crews
• AT 24800 - Commercial Flight II or
• AT 24802 - Commercial Flight II Under Federal Aviation Regulations Part 141
• AT 24900 - Instrument Flight Lectures

15 Credits

Spring 2nd Year

Fourth Semester
• Behavioral / Social Science Selective - Credit Hours: 3.00
• AT 21100 - Ground Trainer II
• AT 25300 - Instrument Flight or
• AT 25302 - Instrument Flight Under Federal Aviation Regulations Part 141
• AT 25400 - Commercial Flight Lectures
• Thematic Area Selective - Credit Hours: 3.00
• Humanities Foundational Selective - Credit Hours: 3.00

15 Credits

Fall 3rd Year

Fifth Semester
• AT 35300 - Multi-Engine Flight
• AT 35400 - Turbine Flight Operations Lecture
• Thematic Area Selective - Credit Hours: 3.00
• PHYS 21800 - General Physics
• Science Foundational Selective - Credit Hours: 3.00
• Free Elective - Credit Hours: 1.00

14 Credits

Spring 3rd Year

Sixth Semester

• AT 32700 - Advanced Transport Flight Operations
• AT 38800 - Large Aircraft Systems
• AT 39500 - Turbine Aircraft Simulation Laboratory
• AT 32501 - Advanced Aviation Meteorology
• STAT 30100 - Elementary Statistical Methods
• AT 47500 - Aviation Law

16 Credits

Fall 4th Year

Seventh Semester

• AT 39600 - Turbine Aircraft Flight Laboratory
• Thematic Area Selective - Credit Hours: 3.00
• Economics Selective - Credit Hours: 3.00
• Advanced English Selective - Credit Hours: 3.00
• Technical Communication Selective - Credit Hours: 3.00
• Free Elective - Credit Hours: 3.00

16 Credits

Spring 4th Year

Eighth Semester

• AT 41600 - Airline Indoctrination
• AT 48700 - Transport Aircraft Simulation Laboratory
• AT 49800 - Aviation Technology Capstone
• Thematic Area Selective - Credit Hours: 3.00
• Free Elective - Credit Hours: 4.00
• Globalization - Credit Hours: 0.00

14 Credits

Note

120 semester credits required for Bachelor of Science degree.
2.0 Graduation GPA required for Bachelor of Science degree.

Degree Requirements

The student is ultimately responsible for knowing and completing all degree requirements.

Degree Works is knowledge source for specific requirements and completion

Purdue policy states that a student may attempt a course no more than three times. An attempt is defined as all courses displayed on a student transcript having grades of (including, but not limited to) A, B, C, D, E, F, W, WF, I and IF.

Aviation Technology Fall 2014 Curriculum Details

English Composition Selectives

• ENGL 10600 - First-Year Composition
• ENGL 10800 - Accelerated First-Year Composition

Calculus Selectives

• MA 16010 - Applied Calculus I
• MA 16100 - Plane Analytic Geometry And Calculus I
• MA 16500 - Analytic Geometry And Calculus I
• MA 22100 - Calculus For Technology I
• MA 22300 - Introductory Analysis I

Advanced English Selectives

• ENGL 42000 - Business Writing
• ENGL 42100 - Technical Writing
Economics Selectives

- ECON 21000 - Principles Of Economics
- ECON 25100 - Microeconomics
- ECON 25200 - Macroeconomics

Science, Humanities, and Behavioral/Social Science Selectives per UCC listing

Technical Communication Selectives

- COM 31500 - Speech Communication Of Technical Information
- COM 32000 - Small Group Communication
- COM 32400 - Introduction To Organizational Communication
- COM 41500 - Discussion Of Technical Problems

Thematic Area Selective Requirement

(Can be fulfilled by any of the following):

- Any University-approved minor
- 6 credit hours of 20000- or higher-level courses AND 6 credit hours of 30000 or higher-level courses from any of the following departments: AT, EAS, ECON, ENTR, HTM, IT, MGMT, OLS, or POL
- 12 consecutive credit hours in a Foreign Language

Aviation Management

Aviation Management selectives may consist of any 30000, 40000, or 50000 level AT prefixed courses.

Air Traffic Control Focus Area

Any student in the Aviation Management major is eligible to complete the FAA CTI program. A detailed explanation of the curriculum is available online at www.tech.purdue.edu/at. Required courses for the Air Traffic Control focus area are AT 28500, AT 36900, and AT 47900.

Airport Management

Recommended courses for the Airport Management focus area are AT 35900, AT 45100 and AT 45900.

Airline Management

Recommended courses for the Airline Management focus area are AT 33800 and AT 43800.

Airframe & Powerplant Certificate
AENT students are highly encouraged to enroll in the following courses in order to receive the FAA A&P certificate. These courses can be utilized to meet the Thematic Area graduation requirements.

- AT 36302 - Fundamentals Of Powerplant Systems
- AT 37200 - Aircraft Maintenance Practices
- AT 40200 - Aircraft Airworthiness Assurance
- AT 47200 - Advanced Composite Technology

Globalization Requirement

Due to the international nature of the aviation industry, all B.S. degree students must meet the department's globalization requirement through one of the following options:

- Complete any university-sponsored study abroad program lasting at least 7 days
- Complete an internship or approved international research project that involves at least 7 days of international travel
- Provide documentation of having lived/traveled outside the U.S. for at least 15 days after a student's 12th birthday.
- Complete or place out of the Level IV (12 credit hours) course in any 1 foreign language.

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

Critical Course

The ♦ course is considered critical. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Department of Building Construction Management Technology

Overview

The Department of Building Construction Management is widely recognized as a leader in building construction education, having been accredited by the American Council for Construction Education. Students receive a hands-on education from professors with rich industry experience. An active Construction Advisory Council helps the department stay at the forefront of the industry's needs.

Faculty

https://polytechnic.purdue.edu/departments/building-construction-management/directory
Contact Information

Building Construction Management Department

Knoy Hall
Room 453
401 N. Grant St.
West Lafayette, IN 47907
Phone: 765.494.2459
Email: bcminfo@purdue.edu

Contact an advisor

Graduate Information

For Graduate Information please see Building Construction Management Graduate Program Information.

Baccalaureate

Building Construction Management Technology, BS

About the Program

Building construction management (BCM) prepares students for a challenging and rewarding career in management or project management within the construction industry. Through interactive classes and hands-on projects, BCM students experience all aspects of a construction project.

Classes focus on leadership and organization as well as materials and processes. They also include the latest industry technologies, including building information modeling.

Building Construction Management Technology Website

Summary of Program Requirements

The Summary of Program Requirements for Building Construction Management Technology is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

TBCM-BS
120 Credits

"C-" or better required in all major courses and all courses that are a prerequisite to a BCM course
Building Construction Management Major Courses (59 credits)

- BCM 10001 - Introduction To Construction (Satisfies Science, Technology & Society selective for core.)
- BCM 17500 - Construction Materials And Methods
- BCM 11201 - Construction Surveying Fundamentals
- BCM 21200 - Construction Layout
- BCM 21500 - Mechanical Construction
- BCM 27500 - Construction Plans And Measurements
- BCM 25001 - Construction Project And Administrative Management
- BCM 21601 - Electrical Construction
- BCM 28500 - Construction Mechanics
- BCM 30101 - Introduction To Construction Company Financial Management
- BCM 34500 - Scheduling
- BCM 35000 - Construction Site Planning
- BCM 35501 - Construction Site Supervision
- BCM 37500 - Estimating
- BCM 38000 - Concrete Construction
- BCM 38501 - Soils In Construction
- BCM 45000 - Construction Company Management
- BCM 45500 - Construction Company Management
- BCM 45701 - Construction Safety
- BCM 47500 - Construction Costs
- BCM 48701 - Construction Capstone

BCM Elective (3 credits)

Any other BCM class for BCM Majors or

- CGT 36000 - Applications Of Construction Documentation I
- CGT 46000 - Building Information Modeling For Commercial Construction
- CGT 46200 - Applications Of Construction Documentation II

Other Departmental/Program Course Requirements (58 credits)

- ECON 21000 - Principles Of Economics (can satisfy Human Cultures Behavioral/Social Science selective for core)
  or
- AGEC 21700 - Economics (can satisfy Human Cultures Behavioral/Social Science selective for core)

- Human Foundations Elective (satisfies Human Culture - Humanities for core) see approved list at http://www.purdue.edu/provost/initiatives/curriculum/course.html - Credit Hours: 3.00
- TECH 12000 - Design Thinking In Technology (satisfies Information Literacy Selective as well as the Science, Technology and Society Selective for core)
- PHYS 21800 - General Physics (satisfies one Science Selective for core)
- Science Lab Selective (satisfies second Science Selective for core)- See Approved BCM List - Credit Hours: 4.00
- English First Year Composition Selective: See list of approved selectives on previous pages) (satisfies Written Communication for core) - Credit Hours: 3.00
- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core)
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MA 15800</td>
<td>Precalculus - Functions And Trigonometry (can satisfy Quantitative Reasoning Selective for core)</td>
</tr>
<tr>
<td>CGT 16400</td>
<td>Graphics For Civil Engineering And Construction</td>
</tr>
<tr>
<td>MA 16010</td>
<td>Applied Calculus I (can satisfy Quantitative Reasoning Selective for core)</td>
</tr>
<tr>
<td>OLS 27400</td>
<td>Applied Leadership</td>
</tr>
<tr>
<td>MGMT 20010</td>
<td>Business Accounting</td>
</tr>
<tr>
<td>MGMT 45500</td>
<td>Legal Background For Business I</td>
</tr>
</tbody>
</table>

**English selective (3 credits)**

- ENGL 42000 - Business Writing or
- ENGL 42100 - Technical Writing or
- ENGL 49000 - Worksite Internship Practicum or
- ENGL 30400 - Advanced Composition

**Business Selective (3 credits)**

- IT 34200 - Introduction To Statistical Quality or
- STAT 30100 - Elementary Statistical Methods or
- STAT 22500 - Introduction To Probability Models or
- ENTR 20000 - Introduction To Entrepreneurship And Innovation or
- MGMT 32300 - Principles Of Marketing or
- MGMT 20100 - Management Accounting I or
- OBHR 30000 - Management Of Human Resources

**Communication Selective (3 credits)**

- AGEC 33100 - Principles Of Selling In Agricultural Business or
- COM 31400 - Advanced Presentational Speaking or
- COM 31500 - Speech Communication Of Technical Information or
- COM 31800 - Principles Of Persuasion or
- COM 32000 - Small Group Communication or
- COM 32400 - Introduction To Organizational Communication or
- COM 32500 - Interviewing: Principles And Practice or
- COM 41500 - Discussion Of Technical Problems or
- a Foreign Language - Credit Hours: 3.00

**Human Relations Selective (3 credits)**

- PSY 12000 - Elementary Psychology or
- SOC 10000 - Introductory Sociology or
- OLS 25200 - Human Relations In Organizations or
- OLS 28400 - Leadership Principles or
- OLS 38600 - Leadership For Organizational Change And Innovation
Global Selective (3 credits)

- TECH 33000 - Technology And The Global Society
- Study Abroad
- other global courses listed above

Technical Elective (3 credits)

Any course within the Colleges of Technology, Engineering, Management or approved course.

Electives (3 credits)

- Free - Credit Hours: 3.00

University Core Requirements

- Human Cultures - Humanities - UCC Selective
- Human Cultures - Behavioral/Social Science - ECON 21000 - Principles Of Economics or
- Human Cultures - Behavioral/Social Science - AGEC 21700 - Economics
- Information Literacy - TECH 12000 - Design Thinking In Technology
- Science #1 - PHYS 21800 - General Physics
- Science #2 - See BCM's list
- Science, Technology & Society - BCM 10001 - Introduction To Construction or
- Science, Technology & Society - TECH 12000 - Design Thinking In Technology
- Written Communication - See BCM's list
- Oral Communication - COM 11400 - Fundamentals Of Speech Communication
- Quantitative Reasoning - MA 15300 - Algebra And Trigonometry I or
- Quantitative Reasoning - MA 15800 - Precalculus- Functions And Trigonometry or
- Quantitative Reasoning - MA 16010 - Applied Calculus I

Program Requirements

Accredited by the American Council for Construction Education (ACCE)

Fall 1st Year

- BCM 10001 - Introduction To Construction
- CGT 16400 - Graphics For Civil Engineering And Construction
- MA 15800 - Precalculus- Functions And Trigonometry *
• English First Year Composition Selective - Credit Hours: 3.00 *
• TECH 12000 - Design Thinking In Technology *

14 Credits

Spring 1st Year

• BCM 17500 - Construction Materials And Methods
• BCM 11201 - Construction Surveying Fundamentals
• MA 16010 - Applied Calculus I *
• OLS 27400 - Applied Leadership
• COM 11400 - Fundamentals Of Speech Communication *

15 Credits

Fall 2nd Year

• BCM 21200 - Construction Layout
• BCM 21500 - Mechanical Construction
• BCM 27500 - Construction Plans And Measurements
• PHYS 21800 - General Physics *
• Human Relations Selective - Credit Hours: 3.00

16 Credits

Spring 2nd Year

• BCM 25001 - Construction Project And Administrative Management
• BCM 21601 - Electrical Construction
• BCM 28500 - Construction Mechanics
• MGMT 20010 - Business Accounting
• Lab Science Selective - Credit Hours: 4.00 *

15 Credits

Fall 3rd Year

• BCM 34500 - Scheduling
• BCM 37500 - Estimating
• Technical Elective - Credit Hours: 3.00
• BCM 38000 - Concrete Construction
• Humanities Foundation Selective - Credit Hours: 3.00 *

15 Credits

Spring 3rd Year

• BCM 30101 - Introduction To Construction Company Financial Management
• BCM 35000 - Construction Site Planning
• BCM 38501 - Soils In Construction
• BCM 45701 - Construction Safety
• Free Elective - Credit Hours: 3.00
• MGMT 45500 - Legal Background For Business I

16 Credits

Fall 4th Year

• BCM 35501 - Construction Site Supervision
• BCM 47500 - Construction Costs
• BCM 45500 - Construction Company Management
• English Selective - Credit Hours: 3.00

• ECON 21000 - Principles Of Economics * or
• AGEC 21700 - Economics *

14 Credits

Spring 4th Year

• BCM 48701 - Construction Capstone
• Global Selective - Credit Hours: 3.00
• BCM Elective - Credit Hours: 3.00
• Business Selective - Credit Hours: 3.00
• Communication Selective - Credit Hours: 3.00

15 Credits
Note

*Satisfies a University Core Requirement

Students must earn a "C-" or better in all BCM courses and all prerequisites for BCM courses.

120 semester credits required for Bachelor of Science degree.

2.0 Graduation GPA required for Bachelor of Science degree.

Any course taken at Purdue can be attempted no more than three times (inclusive of W, WF, WN, and IF)

Degree Requirements

The student is ultimately responsible for knowing and completing all degree requirements.

myPurduePlan is knowledge source for specific requirements and completion

Supplemental BCM Information

Note: An assumption is made that some students are already proficient in Microsoft Office - Excel, PowerPoint, Word and Access. If not, the student may want to consider taking CS 11000 or CS 23500, which can be used towards the Lab Science Selective.

*Note: Students may have to take MA 15300 - Algebra And Trigonometry I first, depending on their math readiness. The pre-requisite for MA 15800 is an ALEKS score of at least 60 or a grade of C- or better in MA 15300. MA 15300 plus MA 15400 - Algebra And Trigonometry II may be taken in place of MA 15800.

BCM Elective

Any non-required BCM class (excluding courses for Non- Majors: BCM 13000 and BCM 23000). BIM courses can also be used, such as CGT 36000, CGT 46000, or CGT 46200

Technical Elective

Any course within the College of Technology, Engineering, or Management, or approved courses.

English Composition First Year Selective

Any course from the following:

- ENGL 10600 - First-Year Composition
- ENGL 10800 - Accelerated First-Year Composition
- ENGL 10100 - English Composition I
- ENGL 10200 - English Composition II
- ENGL 10300 - Comprehensive First Year Composition
- ENGL 10400
- ENGL 10500 - English Composition II
• ENG W1310 or
• ENG W1400 or
• ENG W2330

Human Relations Selective

• PSY 12000 - Elementary Psychology
• SOC 10000 - Introductory Sociology
• OLS 25200 - Human Relations In Organizations
• OLS 28400 - Leadership Principles
• OLS 38600 - Leadership For Organizational Change And Innovation

Communication Selective

• Credit in a Foreign Language
• COM 31400 - Advanced Presentational Speaking
• COM 31500 - Speech Communication Of Technical Information
• COM 31800 - Principles Of Persuasion
• COM 32000 - Small Group Communication
• COM 32400 - Introduction To Organizational Communication
• COM 32500 - Interviewing: Principles And Practice
• COM 41500 - Discussion Of Technical Problems
• AGEC 33100 - Principles Of Selling In Agricultural Business

Lab Science Selective

4 credits in this area are needed for graduation. The courses listed below in bold are 4 or more credit hour courses. You may take two of the 3 credit hour courses instead of one 4 credit hour course. The course(s) must have a lab component. It must not have an online lab component, unless it is a computer class. You must meet all course pre-requisites.

At least one class must be chosen from the following

Chemistry

• CHM 11100 - General Chemistry
• CHM 11200 - General Chemistry
• CHM 11500 - General Chemistry
• CHM 11600 - General Chemistry
• CHM 12500 - Introduction To Chemistry I
• CHM 12600 - Introduction To Chemistry II
• CHM 13600 - General Chemistry Honors
• CHM 20000 - Fundamentals Of Chemistry
Earth, Atmospheric, and Planetary Sciences

- EAPS 11100 - Physical Geology
- EAPS 11200 - Earth Through Time

Physics

- PHYS 21900 - General Physics II
- PHYS 22100 - General Physics
- PHYS 27200 - Electric And Magnetic Interactions

If taking two 3 credit hour courses

If taking two 3 credit hour courses, you may choose the second course from the above list or from among the following:

Computer Graphics Technology CGT courses

- CGT 11000 - Technical Graphics Communications
- CGT 11600 - Geometric Modeling For Visualization And Communication
- CGT 14100 - Internet Foundations, Technologies And Development
- CGT 21100 - Raster Imaging For Computer Graphics
- CGT 21600 - Vector Imaging For Computer Graphics

Not Accepted

- CGT 16400 - Graphics For Civil Engineering And Construction
- CGT 26200 - Introduction To Construction Graphics
- CGT 36000 - Applications Of Construction Documentation I
- CGT 46000 - Building Information Modeling For Commercial Construction
- CGT 46200 - Applications Of Construction Documentation II

Computer and Information Technology

Computer and Information Technology courses with a lab such as

- CNIT 15500 - Introduction to Object-Oriented Programming
- CNIT 17500 - Visual Programming
- CNIT 18000 - Introduction To Systems Development

Computer Science

Computer Science course with a lab such as
• CS 11000 - Introduction To Computers or
  • CNIT 13600 - Personal Computing Technology And Applications

• CS 15800 - C Programming
• CS 17700 - Programming With Multimedia Objects
• CS 18000 - Problem Solving And Object-Oriented Programming
• CS 23500 - Introduction To Organizational Computing

Note
Other courses may apply, see academic advisor.

Business Selective

• IT 34200 - Introduction To Statistical Quality
• STAT 22500 - Introduction To Probability Models
• STAT 30100 - Elementary Statistical Methods
• ENTR 20000 - Introduction To Entrepreneurship And Innovation
• MGMT 20100 - Management Accounting I
• MGMT 32300 - Principles Of Marketing
• MGMT 44301 - Management Of Human Resources

Global Selective

TECH 33000, or Study Abroad, or any of the following courses:

• AD 22600 - History Of Art To 1400
• AD 25500 - Art Appreciation
• AD 45400 - Modern Architecture
• AGEC 25000 - Economic Geography Of World Food And Resources
• ANTH 10000 - Introduction To Anthropology
• ANTH 20500 - Human Cultural Diversity
• ANTH 21200 - Culture, Food And Health
• ANTH 23000 - Gender Across Cultures
• ANTH 31200 - The Archaeology Of Ancient Egypt And The Near East
• ANTH 32700 - Environment And Culture
• ANTH 33600 - Human Variation
• ANTH 33700 - Human Diet: Origins And Evolution
• ANTH 38000 - Using Anthropology In The World
• ARAB 23000 - Arabic Literature In Translation
• ASAM 24000 - Introduction To Asian American Studies
• ASAM 34000 - Contemporary Issues In Asian American Studies
• CHNS 28000 - Topics In Chinese Civilization And Culture
• CLCS 18100 - Classical World Civilizations
• CLCS 23100 - Survey Of Latin Literature
• CLCS 23200 - Classical Roots Of English Words
- CLCS 23300 - Comparative Mythology
- CLCS 28000 - Topics In Classical Civilization
- CLCS 38500 - Science, Medicine And Magic In The Ancient West
- CMPL 23000 - Introduction To Comparative Literature
- CMPL 26600 - World Literature: From The Beginnings To 1700 A D
- CMPL 26700 - World Literature: From 1700 A D To The Present
- COM 22400 - Communicating In The Global Workplace
- COM 30300 - Intercultural Communication
- EAPS 10000 - Planet Earth
- EAPS 12000 - Introduction To Geography
- EAPS 37500 - Great Issues - Fossil Fuels, Energy And Society
- EEE 35500 - Engineering Environmental Sustainability
- ENGL 23000 - Great Narrative Works
- ENGL 24000 - Survey Of The British Literature: From The Beginnings Through The Neoclassical Period
- ENGL 24100 - Survey Of The British Literature: From The Rise Of Romanticism To The Modern Period
- ENGL 25700 - Literature Of Black America
- ENGL 26600 - World Literature: From The Beginnings To 1700 A.D.
- ENGL 26700 - World Literature: From 1700 A.D. To The Present
- ENGL 34100 - Topics In Science, Literature, And Culture
- ENGL 35800 - Black Drama
- ENGL 36000 - Gender And Literature
- FNR 10300 - Introduction To Environmental Conservation
- HDFS 28000 - Diversity In Individual And Family Life
- HEBR 28000 - Modern Israel: Cinema, Literature, Politics And History
- HEBR 28400 - Ancient Near Eastern History And Culture
- HIST 10300 - Introduction To The Medieval World
- HIST 10400 - Introduction To The Modern World
- HIST 10500 - Survey Of Global History
- HIST 24100 - East Asia In The Modern World
- HIST 25000 - United States Relations With The Middle East And North Africa
- HIST 27200 - Introduction To Modern Latin American History (1810 To The Present)
- HIST 31700 - A History Of The Christian Church And The Expansion Of Christianity I
- HIST 32900 - History Of Women In Modern Europe
- HIST 33400 - Science And Technology In Western Civilization II
- HIST 35100 - The Second World War
- HIST 36100 - Violence in Africa
- HIST 37500 - Women In America Since 1870
- JPNS 28000 - Introduction To Modern Japanese Civilization
- JWST 33000 - Introduction To Jewish Studies
- LC 23500 - East Asian Literature In Translation
- LC 23900 - Women Writers In Translation
- MUS 25000 - Music Appreciation
- PHIL 11400 - Global Moral Issues
- PHIL 20600 - Philosophy Of Religion
- PHIL 21900 - Introduction To Existentialism
- PHIL 22500 - Philosophy And Gender
- PHIL 24000 - Social And Political Philosophy
- PHIL 24200 - Philosophy, Culture, And The African American Experience
• PHIL 27000 - Biomedical Ethics
• PHIL 29000 - Environmental Ethics
• PHIL 33000 - Religions of the East
• PHIL 33100 - Religions of the West
• POL 13000 - Introduction To International Relations
• POL 14100 - Governments Of The World
• POL 22200 - Women, Politics, And Public Policy
• POL 22300 - Introduction To Environmental Policy
• POL 23000 - Introduction To The Study Of Peace
• POL 23100 - Introduction To United States Foreign Policy
• POL 23500 - International Relations Among Rich And Poor Nations
• POL 23700 - Modern Weapons And International Relations
• POL 32700 - Global Green Politics
• POL 34800 - East Asian Politics
• Study Abroad Experience
• Foreign Language - in class only

English Selective

• ENGL 42000 - Business Writing
• ENGL 42100 - Technical Writing
• ENGL 30400 - Advanced Composition
• ENGL 49000 - Worksite Internship Practicum

Construction Work Experience

A minimum of 800 hours of post high school construction work experience is required for graduation with a baccalaureate degree. Summer construction jobs, BCM internships, or BCM Co-op programs may be used to satisfy this requirement. To document your work hours, go to the BCM website and look for Work Experience Folder. That will bring up a Word file with directions for you to follow. Concentrations require 400 hours of work experience within the concentration.

Progression Policy

Students must meet the following requirements to progress in the BCM major. Failure to meet these standards will require the student to CODO out of the BCM Department. BCM majors must earn a grade of "C-" or better in all BCM courses and all courses that are a prerequisite to a BCM course. The "C-" grade must be earned before enrolling in subsequent courses. BCM courses can be repeated only once.

Appeal

Students that are not allowed to continue with BCM courses due to the Progression Policy may make a written appeal to the Department Head of Building Construction Management if they believe there are extenuating circumstances that caused them to be dropped from the department.

Departmental Policy
It is the responsibility of each student to assure that he or she fulfills the necessary pre-requisites and courses to meet graduation requirements. Questions may be directed to a BCM advisor.

Concentrations

Students desiring to have a concentration designated on their transcripts should consult with the appropriate concentration coordinator. Students may be limited to one concentration depending on space availability. BCM Concentrations are:

Electrical Construction Management (ELCM)

- BCM 31600 - Electrical Construction Estimating
- BCM 41700 - Design/Build For Mep Contractors

Electrical Concentration Selective

Pick one of the following:

- BCM 31700 - Mechanical And Electrical Construction Management
- BCM 51000 - Topics In Environmentally Sustainable Construction, Design And Development
- CGT 36000 - Applications Of Construction Documentation I
- CGT 46000 - Building Information Modeling For Commercial Construction
- BCM 43000

Mechanical Construction Management (MCNM)

- BCM 31500 - Mechanical Construction Estimating
- BCM 41700 - Design/Build For Mep Contractors

Mechanical Concentration Selective

Pick one of the following:

- BCM 31700 - Mechanical And Electrical Construction Management
- BCM 51000 - Topics In Environmentally Sustainable Construction, Design And Development
- CGT 36000 - Applications Of Construction Documentation I
- CGT 46000 - Building Information Modeling For Commercial Construction
- BCM 43000

Demolition and Reconstruction Management (DEMR)

- BCM 33000 - Introduction To Demolition And Reconstruction Management
- BCM 33100 - Advanced Demolition And Reconstruction Management

Residential Construction Management (RSCM)
• BCM 36000 - Residential Construction
• BCM 46100 - Residential Design Build

Residential Concentration Selective

Pick one of the following:

• BCM 36100 - Residential Field Management
• BCM 36200 - Construction Competition
• BCM 41200 - Field Engineering
• BCM 46000 - Residential Land Development
• AD 45000
• AGEC 33100 - Principles Of Selling In Agricultural Business
• CGT 36000 - Applications Of Construction Documentation I
• LA 15000 - Preservation Issues
• LA 15100 - Building Preservation
• LA 15200 - Community Preservation

Disaster Restoration & Reconstruction Management (DRRM)

• BCM 32000 - Introduction To Disaster Restoration And Reconstruction Management
• BCM 32100 - Disaster Restoration And Reconstruction Project Management

Healthcare Construction Management (HLCM)

• BCM 34000 - Introduction To Healthcare Construction Management
• BCM 34100 - Advanced Topics In Healthcare Construction Management

Organizational Leadership & Supervision Minor

• OLS 25200 - Human Relations In Organizations
• OLS 27400 - Applied Leadership (a required course for BCM)
• OLS 28400 - Leadership Principles
• OLS 38600 - Leadership For Organizational Change And Innovation

Note

OLS 25200, OLS 28400, or OLS 38600 can fulfill the Human Relations Selective, the Technical Elective, or the Free Elective.

Computer Graphics (BIM) Minor

• CGT 16400 - Graphics For Civil Engineering And Construction (required for BCM)
• CGT 36000 - Applications Of Construction Documentation I
• CGT 46000 - Building Information Modeling For Commercial Construction
• CGT 46200 - Applications Of Construction Documentation II

Note

CGT 36000, CGT 46000, or CGT 46200 can fulfill the Technical Elective, the Free Elective, or the BCM Elective.

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

Critical Course

The ♦ course is considered critical. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Expired Course

Any course without a link to its description is one that has been expired. However, this course could fulfill the degree requirement historically.

Minor

Building Construction Management Technology Minor

Objective: The BCM minor will expose students in other disciplines to more in-depth construction management principles to better prepare individuals seeking employment in one of the many related professions in the built environment. This minor will help to create basic understanding of daily construction operations at the project and corporate levels.

Admissions Requirements: Students must be in good academic standing for consideration of being admitted into the BCM Minor. This is a limited-access program based on available seats for enrollment. The BCM Department will review the enrollment numbers each semester to determine the availability for further admissions into the minor. Any students admitted to the BCM minor are subject to all current CODO (Change of Curricula) requirements if they desire to obtain full admissions into the TBCM-BS degree program.

Students are not allowed to take more than 21 credits of BCM coursework while enrolled in the BCM minor.

Requirements for the Minor

Foundational Topics
• BCM 10001 - Introduction To Construction
• BCM 17500 - Construction Materials And Methods
• BCM 27500 - Construction Plans And Measurements

10 Credits

Selective Topics (Minimum of 6 credit hours)

• BCM 23000 - Mechanical And Electrical Systems
• BCM 25001 - Construction Project And Administrative Management
• BCM 32000 - Introduction To Disaster Restoration And Reconstruction Management
• BCM 33000 - Introduction To Demolition And Reconstruction Management
• BCM 34000 - Introduction To Healthcare Construction Management
• BCM 35000 - Construction Site Planning
• BCM 36000 - Residential Construction
• BCM 51000 - Topics In Environmentally Sustainable Construction, Design And Development
• BCM 45500 - Construction Company Management
• BCM 45701 - Construction Safety
• EPCS XXXX - EPICS - Construction Related - Credit Hours: 1.00 - 3.00
• Other

6 Credits

16 Total Credits

Note

REQUIREMENTS NOTE: Up to 3 credit hours can be used in equivalent courses, as determined by the BCM Department Head.

Further Conditions of the BCM Minor

• Course registration will be controlled by the BCM department.
• Some BCM minor courses may require an override from the BCM Dept.
• Most BCM core courses are only open to BCM majors.
• All Non- BCM majors can enroll in BCM 10001 and BCM 23000 without being in the BCM Minor.
• All BCM minor courses must be taken for a grade on the Purdue University, West Lafayette Campus.
• Students are not allowed to take more than 21 credits of BCM coursework while enrolled in the BCM minor.
• Space in BCM courses is not guaranteed.
• Space in some BCM courses might not be available until open enrollment.
• Successful completion of the BCM Minor does not guarantee admissions into the TBCM-BS program.
• BCM requires ALL BCM Major and Minor students to earn a minimum "C" in all BCM courses.
• Students are subject to dismissal from this minor if they receive a failing grade in any BCM course.
Application for Obtaining a Minor in Building Construction Management.

Department of Computer and Information Technology

Overview

The Department of Computer and Information Technology (CIT) at Purdue provides educational opportunities that apply information technology (IT) to solve societal problems. Degree programs in information systems technology and network engineering technology focus on four core areas: software development, systems integration, data management, computer networks. The drive to solve problems extends to industrial and corporate partners and funded faculty research projects as well.

Faculty

https://polytechnic.purdue.edu/departments/computer-and-information-technology/directory

Contact Information

Computer Information Technology Department

Knoy Hall
Room 255
401 N. Grant St.
West Lafayette, IN 47907
Phone: 765-494-2560
Email: cit@purdue.edu

Contact an advisor

Graduate Information

For Graduate Information please see Computer and Information Technology Graduate Program Information.

Baccalaureate

Computer and Information Technology (CIT), BS

About the Program

Tackle society's grand challenges with a degree in information technology. For example, helping make solar energy economical requires skills in programming, big data analytics and networking. Engineering better medicines requires skills in bioinformatics,
big data analytics and artificial intelligence. And keeping cyberspace safe requires skills in networking, cyber security and cyber forensics.

You will learn to harness the power of computers, software, and computer networks to create systems that help solve business problems and create a competitive advantage. Information technology professionals are responsible for information systems that provide timely and correct information, support efficient business processes, and promote effective communication. The flexible curriculum allows you to focus on specific topics throughout your time at Purdue.

This program is also offered at the Purdue College of Technology locations in Anderson, Columbus and Kokomo.

Computer and Information Technology Website

Summary of Program Requirements

The Summary of Program Requirements for Computer and Information Technology is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

TCIT-BS
120 CREDITS FOR GRADUATION
"C-" or better required in all CNIT courses that are a prerequisite to CNIT course

Departmental/Program Major Courses (120 credits)

Computer and Information Technology Required Major Courses (42 credits)

- CNIT 15501 - Introduction To Software Development Concepts
- CNIT 17600 - Information Technology Architectures
- CNIT 18000 - Introduction To Systems Development (Gateway to CIT)
- CNIT 24200 - System Administration
- CNIT 25501 - Object-Oriented Programming Introduction
- CNIT 27200 - Database Fundamentals
- CNIT 28000 - Systems Analysis And Design Methods
- CNIT 48000 - Managing Information Technology Projects

Programming Selective (3 credits)

- CNIT 31500 - Systems Programming or
- CNIT 32500 - Object-Oriented Application Development

Information Systems Selectives (15 credits)
- any other CNIT or
- CGT 30000 level or higher courses, EPCS (3 credits) approved by CIT faculty

Major Cognate Selectives - Select 1 of the following options (6 credits)

- CNIT 37200 - Database Programming (Required for SA&D concentration) or
- CNIT 39200 - Enterprise Data Management (Required for SA&D concentration)
  and
- CNIT 38000 - Advanced Analysis and Design (Required for SA&D concentration)
  or
- CNIT 34500 - Internetwork Design And Implementation (Required for NET concentration) and
- CNIT 45500 - Network Security (Required for NET concentration)

Other Departmental /Program Course Requirements (69 credits)

- ENGL 10600 - First-Year Composition (satisfies Written Communication for core) or
- ENGL 10800 - Accelerated First-Year Composition (satisfies Written Communication for core)

- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core)
- TECH 12000 - Design Thinking In Technology (satisfies Information Literacy Selective for core)
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning Selective for core)
- MA 16020 - Applied Calculus II (satisfies Quantitative Reasoning Selective for core)
- OLS 25200 - Human Relations In Organizations
- Science Selective (satisfies Science Selective for core) - Credit Hours: 3.00
- Science Lab Selective (satisfies Science Selective for core) - Credit Hours: 3.00
- Interdisciplinary Selective (see supplemental information) - Credit Hours: 15.00
- Humanities Selective (satisfies Human Cultures Humanities for core). See approved list at:
  http://www.purdue.edu/provost/initiatives/curriculum/course.html - Credit Hours: 3.00
- Behavioral/Social Science Foundational Selective (satisfies Human Culture Behavioral/Social Science for core). See
  approved list at: http://www.purdue.edu/provost/initiatives/curriculum/course.html - Credit Hours: 3.00

Communications Selective (3 credits)

- COM 21000 - Debating Public Issues
- COM 21200 - Approaches To The Study Of Interpersonal Communication
- COM 31400 - Advanced Presentational Speaking
- COM 31500 - Speech Communication Of Technical Information
- COM 31800 - Principles Of Persuasion
- COM 32000 - Small Group Communication
- COM 32400 - Introduction To Organizational Communication

Economics Selective (3 credits)

- AGEC 21700 - Economics or
- ECON 21000 - Principles Of Economics
- ECON 25100 - Microeconomics
- ECON 25200 - Macroeconomics

Accounting Selective (3 credits)
- MGMT 20000 - Introductory Accounting (Required for MGMT Minor)
- MGMT 20010 - Business Accounting

Statistics Selective (3 credits)
- STAT 22500 - Introduction To Probability Models
- STAT 30100 - Elementary Statistical Methods
- STAT 50100 - Experimental Statistics I
- STAT 51100 - Statistical Methods

Professional Speaking Selective (3 credits)
- COM 31500 - Speech Communication Of Technical Information
- COM 32000 - Small Group Communication
- COM 32500 - Interviewing: Principles And Practice
- COM 41500 - Discussion Of Technical Problems

Professional Writing Selective (3 credits)
- ENGL 42000 - Business Writing
- ENGL 42100 - Technical Writing

Global and Professional Issues Selective (3 credits)
- CNIT 32000

General Business Selective (3 credits)
- IT 10400 - Industrial Organization

Free Elective (3 credits)
(Any non-remedial course: see supplemental information)

University Core Requirements

- Human Cultures Humanities - UCC Selective
- Human Cultures Behavioral/Social Science - UCC Selective
- Information Literacy - TECH 12000 - Design Thinking In Technology
- Science #1 - UCC Selective
- Science #2 - UCC Selective
- Science, Technology & Society Selective - TECH 12000 - Design Thinking In Technology
- Written Communication - ENGL 10600 - First-Year Composition or
- Written Communication - ENGL 10800 - Accelerated First-Year Composition
- Oral Communication - COM 11400 - Fundamentals Of Speech Communication
- Quantitative Reasoning - MA 16010 - Applied Calculus I
- Quantitative Reasoning - MA 16020 - Applied Calculus II

Program Requirements

Fall 1st Year

First Semester

- CNIT 18000 - Introduction To Systems Development
- ENGL 10600 - First-Year Composition * or
  - ENGL 10800 - Accelerated First-Year Composition *
- IT 10400 - Industrial Organization Business Selective
- MA 16010 - Applied Calculus I *
- TECH 12000 - Design Thinking In Technology *

15 Credits

Spring 1st Year

Second Semester

- CNIT 15501 - Introduction To Software Development Concepts
- CNIT 17600 - Information Technology Architectures
- COM 11400 - Fundamentals Of Speech Communication *
- MA 16020 - Applied Calculus II *
- OLS 25200 - Human Relations In Organizations
15 Credits

Fall 2nd Year

Third Semester

- CNIT 25501 - Object-Oriented Programming Introduction
- CNIT 27200 - Database Fundamentals
- Communications Selective 1 - Credit Hours: 3.00
- Economics Selective 2 - Credit Hours: 3.00
- Science Selective 3 - Credit Hours: 3.00 *

15 Credits

Spring 2nd Year

Fourth Semester

- CNIT 24200 - System Administration
- CNIT 28000 - Systems Analysis And Design Methods
- Accounting Selective 4 - Credit Hours: 3.00
- Statistics Selective 5 - Credit Hours: 3.00
- Lab Science Selective 6 - Credit Hours: 3.00 *

15 Credits

Fall 3rd Year

Fifth Semester

- CIT Cognate Selective 7 - Credit Hours: 3.00
- CIT Cognate Selective 7 - Credit Hours: 3.00 - 4.00

- Programming Selective (CNIT 31500) - Credit Hours: 3.00 or
- Programming Selective (CNIT 32500) - Credit Hours: 3.00

- Professional Speaking Selective 8 - Credit Hours: 3.00
- Interdisciplinary Selective 9 - Credit Hours: 3.00

15 Credits
Spring 3rd Year

Sixth Semester

- Information Systems Selective 10 - Credit Hours: 3.00
- Information Systems Selective 10 - Credit Hours: 3.00
- Professional Writing Selective 11 - Credit Hours: 3.00
- Interdisciplinary Selective 9 - Credit Hours: 3.00
- Global and Professional Issues Selective 12 - Credit Hours: 3.00

15 Credits

Fall 4th Year

Seventh Semester

- Free Elective 13 - Credit Hours: 3.00
- Interdisciplinary Selective 9 - Credit Hours: 3.00
- Information Systems Selective 10 - Credit Hours: 3.00
- Information Systems Selective 10 - Credit Hours: 3.00
- Humanities Foundational Selective 14 - Credit Hours: 3.00 *

15 Credits

Spring 4th Year

Eighth Semester

- CNIT 48000 - Managing Information Technology Projects
- Information Systems Selective 10 - Credit Hours: 3.00
- Interdisciplinary Selective 9 - Credit Hours: 3.00
- Interdisciplinary Selective 9 - Credit Hours: 3.00
- Behavioral/Social Sciences Foundational Selective 15 - Credit Hours: 3.00 *

15 Credits

Note

*Fulfills University Core

1. Students must earn a C- or better in all CNIT courses that are a prerequisite to CNIT courses.
2. 120 semester credits listed above are required for the CIT Bachelor of Science degree.
3. 2.0 Graduation GPA required for Bachelor of Science degree.
4. 2.0 Graduation GPA in all CNIT courses required for Bachelor of Science degree.
5. CNIT COURSES MAY BE TAKEN NO MORE THAN THREE TIMES (INCLUSIVE OF W, WF, or WN, I AND IF GRADES): STUDENTS NOT FULFILLING THIS POLICY MUST WITHDRAW FROM THE PROGRAM.
6. ANY COURSE TAKEN AT PURDUE CAN BE ATTEMPTED NO MORE THAN THREE TIMES (INCLUSIVE OF W, WF, WN, I and IF).

Degree Requirements

The student is ultimately responsible for knowing and completing all degree requirements.

myPurduePlan is knowledge source for specific requirements and completion.

CIT Supplemental Information

All prerequisites Must Be Met

Communications Selective

1COMMUNICATIONS SELECTIVE

- COM 21000 - Debating Public Issues
- COM 21200 - Approaches To The Study Of Interpersonal Communication
- COM 31400 - Advanced Presentational Speaking
- COM 31500 - Speech Communication Of Technical Information
- COM 31800 - Principles Of Persuasion
- COM 32000 - Small Group Communication
- COM 32400 - Introduction To Organizational Communication

Economics Selective

2ECONOMICS SELECTIVE

- AGEC 21700 - Economics or
- ECON 21000 - Principles Of Economics

- ECON 25100 - Microeconomics
- ECON 25200 - Macroeconomics

Science Selective & Lab Science Selective

3SCIENCE SELECTIVE &
6LAB SCIENCE SELECTIVE (must take at least 3 credits of Science Selective with a Lab Component)

See approved list at: http://www.purdue.edu/provost/initiatives/curriculum/course.html and check schedule of classes to ensure the course is being offered with a lab component.
The following courses are typically offered with a lab component:

- BIOL 11000 - Fundamentals Of Biology I *
- BIOL 11100 - Fundamentals Of Biology II *
- BIOL 13500 - First year Biology Laboratory *
- BIOL 14501 - First Year Biology Laboratory With Neuro Research Project *
- BIOL 14502 - First Year Biology Laboratory With Micro Research Project *
- BIOL 14600 - Introduction To Biology *
- BIOL 20300 - Human Anatomy And Physiology *
- BIOL 20400 - Human Anatomy And Physiology *
- BIOL 20500 - Biology For Elementary School Teachers *
- BIOL 20600 - Biology For Elementary School Teachers *
- BTNY 11000 - Introduction To Plant Science *
- CHM 11100 - General Chemistry *
- CHM 11200 - General Chemistry *
- CHM 11500 - General Chemistry *
- CHM 11600 - General Chemistry *
- CHM 12500 - Introduction To Chemistry I *
- CHM 12600 - Introduction To Chemistry II *
- CHM 13600 - General Chemistry Honors *
- CHM 20000 - Fundamentals Of Chemistry *
- CHM 12901 - General Chemistry With A Biological Focus *
- EAPS 10200 - Earth Science For Elementary Teachers *
- EAPS 10900 - The Dynamic Earth *
- HORT 10100 - Fundamentals Of Horticulture *
- PHYS 17200 - Modern Mechanics *
- PHYS 21800 - General Physics *
- PHYS 21900 - General Physics II *
- PHYS 22000 - General Physics *
- PHYS 22100 - General Physics *
- PHYS 27200 - Electric And Magnetic Interactions *

**Accounting Selective**

4 ACCOUNTING SELECTIVE

- MGMT 20000 - Introductory Accounting (Required for MGMT Minor)
- MGMT 20010 - Business Accounting

**Statistics Selective**

3 STATISTICS SELECTIVE

- STAT 22500 - Introduction To Probability Models
- STAT 30100 - Elementary Statistical Methods
- STAT 50100 - Experimental Statistics I
• STAT 51100 - Statistical Methods

CIT Cognate Selective Options (6-7 Credits)

7. CIT COGNATE SELECTIVE OPTIONS

Option 1

• CNIT 37200 - Database Programming or
• CNIT 39200 - Enterprise Data Management
• CNIT 38000 - Advanced Analysis and Design

Option 2

(Required for NET concentration)

• CNIT 34500 - Internetwork Design And Implementation
• CNIT 45500 - Network Security

Professional Speaking Selective

8. Professional Speaking Selective

• COM 31500 - Speech Communication Of Technical Information
• COM 32000 - Small Group Communication
• COM 32500 - Interviewing: Principles And Practice
• COM 41500 - Discussion Of Technical Problems

Interdisciplinary Selectives (15 credits)

9. Interdisciplinary Selectives

Any University recognized minor with at least 15 credits will fulfill this requirement.

http://www.admissions.purdue.edu/majors/minors.php

• COM 32400 - Introduction To Organizational Communication
• ECET 22400 - Electronic Systems
• ECET 37400 - Digital Telecommunications
• ENTR 20000 - Introduction To Entrepreneurship And Innovation
• ENTR 31000 - Marketing And Management For New Ventures
• IET 45100 - Monetary Analysis For Industrial Decisions
• IT 34200 - Introduction To Statistical Quality
• IT 34500 - Automatic Identification And Data Capture
- IT 45000 - Production Cost Analysis
- MET 45100 - Manufacturing Quality Control
- MFET 24300 - Automated Manufacturing I
- MFET 40000 - Computer Integrated Manufacturing
- MFET 45100 - Manufacturing Quality Control
- MGMT 20100 - Management Accounting I
- MGMT 30400 - Introduction To Financial Management
- MGMT 32300 - Principles Of Marketing
- MGMT 44301 - Management Of Human Resources
- MGMT 45500 - Legal Background For Business I
- OLS 37500 - Training Methods
- OLS 37600 - Human Resource Issues
- OLS 38600 - Leadership For Organizational Change And Innovation
- OLS 47700 - Conflict Management
- OLS 48400 - Leadership Strategies For Quality And Productivity
- PSY 27200 - Introduction To Industrial-Organizational Psychology

Information Systems Selectives

10. INFORMATION SYSTEMS SELECTIVE

Any non-required 30000 level or higher CNIT course or EPICS (EPCS): participation in EPCIS requires CIT faculty approval; CGT courses 30000 level or higher

Professional Writing Selective

11. PROFESSIONAL WRITING SELECTIVE

- ENGL 42000 - Business Writing or
- ENGL 42100 - Technical Writing

Global and Professional Issues Selective

12. GLOBAL AND PROFESSIONAL ISSUES SELECTIVE

- CNIT 32000 - Policy, Regulation, and Globalization in IT

Free Elective


Humanities Foundational Selective

14. HUMANITIES FOUNDATIONAL SELECTIVE: see http://www.purdue.edu/provost/initiatives/curriculum/course.html

Behavioral/Social Sciences Foundational Selective
Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

Critical Course

The ♦ course is considered critical. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Expired Course

Any course without a link to its description is one that has been expired. However, this course could fulfill the degree requirement historically.

Computer and Information Technology: Network Engineering Technology Concentration, BS

About the Program

The world operates on the back of computers - networks of computers. Whether it is wired or wireless, information must be able to travel the network securely, efficiently and accurately. The network engineering technology major provides the necessary background about hardware and software needs to solve networking problems.

Network Engineering Technology Website

Summary of Program Requirements

The Summary of Program Requirements for Computer and Information Technology-Network Engineering Concentration is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.
Departmental/Program Major Courses (122 credits)

Computer and Information Technology Major Courses (45 credits)

- CNIT 15501 - Introduction To Software Development Concepts
- CNIT 17600 - Information Technology Architectures
- CNIT 18000 - Introduction To Systems Development (Gateway to CIT)
- CNIT 24000 - Data Communications And Networking
- CNIT 24200 - System Administration
- CNIT 25501 - Object-Oriented Programming Introduction
- CNIT 27200 - Database Fundamentals
- CNIT 28000 - Systems Analysis And Design Methods
- CNIT 31500 - Systems Programming
- CNIT 34000 - UNIX Administration
- CNIT 34200 - Advanced System And Network Administration
- CNIT 34600 - Wireless Networks
- CNIT 48000 - Managing Information Technology Projects
- Information Systems Selectives (any other CNIT or CGT 30000 level or higher courses, EPCS (3 credits) approved by CIT faculty) - Credit Hours: 6.00

Major Cognate Requirements (6 credits)

- CNIT 34500 - Internetwork Design And Implementation (Required for NET concentration)
- CNIT 45500 - Network Security (Required for NET concentration)

Other Departmental /Program Course Requirements (71 credits)

- ENGL 10600 - First-Year Composition (satisfies Written Communication for core) or
- ENGL 10800 - Accelerated First-Year Composition (satisfies Written Communication for core)
- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core)
- TECH 12000 - Design Thinking In Technology (satisfies Information Literacy Selective for core)
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning Selective for core)
- MA 16020 - Applied Calculus II (satisfies Quantitative Reasoning Selective for core)
- OLS 25200 - Human Relations In Organizations
- PHYS 21800 - General Physics (satisfies Science Selective for core) or
- PHYS 22200 - Mechanics Laboratory (satisfies Science Selective for core)
- PHYS 21900 - General Physics II (satisfies Science Selective for core) or
- PHYS 22100 - General Physics (satisfies Science Selective for core)
- Interdisciplinary Selective (see supplemental information) - Credit Hours: 8.00
• Humanities Selective (satisfies Human Cultures Humanities for core). See approved list at: http://www.purdue.edu/provost/initiatives/curriculum/course.html - Credit Hours: 3.00
• Behavioral/Social Science Foundational Selective (satisfies Human Culture Behavioral/Social Science for core). See approved list at: http://www.purdue.edu/provost/initiatives/curriculum/course.html - Credit Hours: 3.00

Communications Selective

• COM 21000 - Debating Public Issues
• COM 21200 - Approaches To The Study Of Interpersonal Communication
• COM 31400 - Advanced Presentational Speaking
• COM 31500 - Speech Communication Of Technical Information
• COM 31800 - Principles Of Persuasion
• COM 32000 - Small Group Communication
• COM 32400 - Introduction To Organizational Communication

Economics Selective

• AGEC 21700 - Economics or
• ECON 21000 - Principles Of Economics

• ECON 25100 - Microeconomics
• ECON 25200 - Macroeconomics

Accounting Selective

• MGMT 20000 - Introductory Accounting (Required for MGMT Minor)
• MGMT 20010 - Business Accounting

Statistics Selective

• STAT 22500 - Introduction To Probability Models
• STAT 30100 - Elementary Statistical Methods
• STAT 50100 - Experimental Statistics I
• STAT 51100 - Statistical Methods

Professional Speaking Selective

• COM 31500 - Speech Communication Of Technical Information
• COM 32000 - Small Group Communication
• COM 32500 - Interviewing: Principles And Practice
• COM 41500 - Discussion Of Technical Problems
Professional Writing Selective

- ENGL 42000 - Business Writing
- ENGL 42100 - Technical Writing

Global and Professional Issues Selective

- CNIT 32000 - Credit Hours: 3.00

General Business Selective

- IT 10400 - Industrial Organization

Interdisciplinary Selective

- ECET 22400 - Electronic Systems

Interdisciplinary Selective

- ECET 37400 - Digital Telecommunications

University Core Requirements

- Human Cultures Humanities - UCC Selective
- Human Cultures Behavioral/Social Science - UCC Selective
- Information Literacy - TECH 12000 - Design Thinking In Technology

- Science #1 - PHYS 21800 - General Physics or
- Science #1 - PHYS 22000 - General Physics

- Science #2 - PHYS 21900 - General Physics II or
- Science #2 - PHYS 22100 - General Physics

- Science, Technology & Society Selective - TECH 12000 - Design Thinking In Technology

- Written Communication - ENGL 10600 - First-Year Composition or
- Written Communication - ENGL 10800 - Accelerated First-Year Composition

- Oral Communication - COM 11400 - Fundamentals Of Speech Communication
- Quantitative Reasoning - MA 16010 - Applied Calculus I
- Quantitative Reasoning - MA 16020 - Applied Calculus II
Program Requirements

Fall 1st Year

First Semester

- CNIT 18000 - Introduction To Systems Development
- ENGL 10600 - First-Year Composition * or
- ENGL 10800 - Accelerated First-Year Composition *
- IT 10400 - Industrial Organization Business Selective
- MA 16010 - Applied Calculus I *
- TECH 12000 - Design Thinking In Technology *

15 Credits

Spring 1st Year

Second Semester

- CNIT 15501 - Introduction To Software Development Concepts
- CNIT 17600 - Information Technology Architectures
- COM 11400 - Fundamentals Of Speech Communication *
- MA 16020 - Applied Calculus II *
- OLS 25200 - Human Relations In Organizations

15 Credits

Fall 2nd Year

Third Semester

- CNIT 25501 - Object-Oriented Programming Introduction
- CNIT 27200 - Database Fundamentals
- CNIT 24000 - Data Communications And Networking
- Accounting Selective 3 - Credit Hours: 3.00
- PHYS 21800 - General Physics * or
- PHYS 22000 - General Physics *
16 Credits

Spring 2nd Year

Fourth Semester

- CNIT 24200 - System Administration
- CNIT 28000 - Systems Analysis And Design Methods
- ECET 22400 - Electronic Systems
- Statistics Selective 4 - Credit Hours: 3.00

- PHYS 21900 - General Physics II * or
- PHYS 22100 - General Physics *

16 Credits

Fall 3rd Year

Fifth Semester

- CNIT 34000 - UNIX Administration
- CNIT 34500 - Internetwork Design And Implementation
- ECET 37400 - Digital Telecommunications
- Professional Speaking Selective 5 - Credit Hours: 3.00
- Economics Selective 2 - Credit Hours: 3.00

16 Credits

Spring 3rd Year

Sixth Semester

- CNIT 34200 - Advanced System And Network Administration
- CNIT 34600 - Wireless Networks
- Professional Writing Selective 8 - Credit Hours: 3.00
- Interdisciplinary Selective 6 - Credit Hours: 3.00
- Global and Professional Issues Selective 9 - Credit Hours: 3.00

15 Credits
Fall 4th Year

Seventh Semester

- CNIT 45500 - Network Security
- CNIT 31500 - Systems Programming
- Communications Selective 1 - Credit Hours: 3.00
- Information Systems Selective 7 - Credit Hours: 3.00
- Humanities Foundational Selective 10 - Credit Hours: 3.00 *

15 Credits

Spring 4th Year

Eighth Semester

- CNIT 48000 - Managing Information Technology Projects
- Information Systems Selective 7 - Credit Hours: 3.00
- Interdisciplinary Selective 6 - Credit Hours: 3.00
- Interdisciplinary Selective 6 - Credit Hours: 2.00 - 3.00
- Behavioral/Social Sciences Foundational Selective 11 - Credit Hours: 3.00 *

14 Credits

Total Credits 122

Note

*Fulfills University Core

1. Students must earn a C- or better in all CNIT courses that are a prerequisite to CNIT courses.
2. 122 semester credits listed above are required for the CIT Bachelor of Science degree with a NET concentration.
3. 2.0 Graduation GPA required for Bachelor of Science degree.
4. 2.0 Graduation GPA in all CNIT courses required for Bachelor of Science degree.
5. CNIT COURSES MAY BE TAKEN NO MORE THAN THREE TIMES (INCLUSIVE OF W, WF or WN and I GRADES): STUDENTS NOT FULFILLING THIS POLICY MUST WITHDRAW FROM THE PROGRAM.
6. ANY COURSE TAKEN AT PURDUE CAN BE ATTEMPTED NO MORE THAN THREE TIMES (INCLUSIVE OF W, WF, WN, I and IF).

Degree Requirements

The student is ultimately responsible for knowing and completing all degree requirements.
myPurduePlan is knowledge source for specific requirements and completion.

CIT Supplemental Information for NET Concentration

All prerequisites Must Be Met

Communications Selective

1 Communications Selective

- COM 21000 - Debating Public Issues
- COM 21200 - Approaches To The Study Of Interpersonal Communication
- COM 31400 - Advanced Presentational Speaking
- COM 31500 - Speech Communication Of Technical Information
- COM 31800 - Principles Of Persuasion
- COM 32000 - Small Group Communication
- COM 32400 - Introduction To Organizational Communication

Economics Selective

2 Economics Selective

- AGEC 21700 - Economics or
- ECON 21000 - Principles Of Economics

- ECON 25100 - Microeconomics
- ECON 25200 - Macroeconomics

Accounting Selective

3 Accounting Selective

- MGMT 20000 - Introductory Accounting (Required for MGMT Minor)
- MGMT 20010 - Business Accounting

Statistics Selective

4 Statistics Selective

- STAT 22500 - Introduction To Probability Models
- STAT 30100 - Elementary Statistical Methods
- STAT 50100 - Experimental Statistics I
- STAT 51100 - Statistical Methods
Professional Speaking Selective

5 Professional Speaking Selective

- COM 31500 - Speech Communication Of Technical Information
- COM 32000 - Small Group Communication
- COM 32500 - Interviewing: Principles And Practice
- COM 41500 - Discussion Of Technical Problems

Interdisciplinary Selectives (8 credits REMAINING)

6 Interdisciplinary Selectives (8 credits REMAINING)

Any University recognized minor with at least 8 credits will fulfill this requirement. Several minors have courses that will fulfill both CIT degree requirements and the minor. [http://www.purdue.edu/advisors/courses_majors/minors.html](http://www.purdue.edu/advisors/courses_majors/minors.html)

- COM 32400 - Introduction To Organizational Communication
- ENTR 20000 - Introduction To Entrepreneurship And Innovation
- ENTR 31000 - Marketing And Management For New Ventures
- IET 45100 - Monetary Analysis For Industrial Decisions
- IT 34200 - Introduction To Statistical Quality
- IT 34500 - Automatic Identification And Data Capture
- IT 45000 - Production Cost Analysis
- MET 45100 - Manufacturing Quality Control
- MFET 24300 - Automated Manufacturing I
- MFET 40000 - Computer Integrated Manufacturing
- MFET 45100 - Manufacturing Quality Control
- MGMT 20100 - Management Accounting I
- MGMT 30400 - Introduction To Financial Management
- MGMT 32300 - Principles Of Marketing
- MGMT 44301 - Management Of Human Resources
- MGMT 45500 - Legal Background For Business I
- OLS 37500 - Training Methods
- OLS 37600 - Human Resource Issues
- OLS 38600 - Leadership For Organizational Change And Innovation
- OLS 47700 - Conflict Management
- OLS 48400 - Leadership Strategies For Quality And Productivity
- PSY 27200 - Introduction To Industrial-Organizational Psychology

Information Systems Selective

7 Information Systems Selective

Any non-required 30000 level or higher CNIT course or EPICS (EPCS): participation in EPICS requires CIT faculty approval; CGT courses 30000 level or higher
Professional Writing Selective

8 Professional Writing Selective
- ENGL 42000 - Business Writing or
- ENGL 42100 - Technical Writing

Global and Professional Issues Selective

9 Global and Professional Issues Selective
- CNIT 32000 - Policy, Regulation, and Globalization in IT

Humanities Foundational Selective

10 Humanities Foundational Selective
see http://www.purdue.edu/provost/initiatives/curriculum/course.html

Behavioral/Social Sciences Foundational Selective

11 Behavioral/Social Sciences Foundational Selective
see http://www.purdue.edu/provost/initiatives/curriculum/course.html

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

Critical Course

The ♦ course is considered critical. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Expired Course

Any course without a link to its description is one that has been expired. However, this course could fulfill the degree requirement historically.

Computer and Information Technology: Systems Analysis and Design Concentration, BS
About the Program

Study how organizations use computer systems and procedures and then design information systems solutions to help them operate more efficiently and effectively. You will combine business practices with programming, applications and databases. In the workforce, systems professionals work in a variety of industries and with people from a variety of professions. You will be encouraged to further specialize with a minor in a specific field, such as healthcare, finance, agriculture or manufacturing.

Systems Analysis and Design Website

Summary of Program Requirements

The Summary of Program Requirements for Computer and Information Technology-System Analysis and Design Concentration is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

TCIT-BS

121 CREDITS FOR GRADUATION

"C" or better in all CNIT courses that are a prerequisite to CNIT course

Departmental/Program Major Courses (121 credits)

Computer and Information Technology Required Major Courses (43 credits)

- CNIT 15501 - Introduction To Software Development Concepts
- CNIT 17600 - Information Technology Architectures
- CNIT 18000 - Introduction To Systems Development (Gateway to CIT)
- CNIT 24200 - System Administration
- CNIT 25501 - Object-Oriented Programming Introduction
- CNIT 27200 - Database Fundamentals
- CNIT 28000 - Systems Analysis And Design Methods
- CNIT 38000 - Advanced Analysis and Design
- CNIT 39200 - Enterprise Data Management
- CNIT 48000 - Managing Information Technology Projects
- CGT 25600 - Principles Of User Experience Design

Programming Selective

- CNIT 31500 - Systems Programming or
- CNIT 32500 - Object-Oriented Application Development
Information Systems Selectives

Any CNIT or CGT 30000 level or higher courses, EPCS (3 credits) approved by CIT faculty

Major Cognate Selectives (6 credits from the following selectives options)

- CNIT 38301 - Packaged Application Software Solutions or
- CNIT 40500 - Software Development Methodologies
- CNIT 49900 - Topics In Computer And Information Technology

Other Departmental /Program Course Requirements (72 credits)

- ENGL 10600 - First-Year Composition (satisfies Written Communication for core) or
- ENGL 10800 - Accelerated First-Year Composition (satisfies Written Communication for core)
- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core)
- PHIL 15000 - Principles Of Logic
- TECH 12000 - Design Thinking In Technology (satisfies Information Literacy Selective for core)
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning Selective for core)
- MA 16020 - Applied Calculus II (satisfies Quantitative Reasoning Selective for core)
- OLS 25200 - Human Relations In Organizations
- Science Selective (satisfies Science Selective for core) - Credit Hours: 3.00
- Science Lab Selective (satisfies Science Selective for core) - Credit Hours: 3.00
- Interdisciplinary Selective (see supplemental information) - Credit Hours: 15.00

Communications Selective (3 credits)

- COM 21000 - Debating Public Issues
- COM 21200 - Approaches To The Study Of Interpersonal Communication
- COM 31400 - Advanced Presentational Speaking
- COM 31500 - Speech Communication Of Technical Information
- COM 31800 - Principles Of Persuasion
- COM 32000 - Small Group Communication
- COM 32400 - Introduction To Organizational Communication

Economics Selective (3 credits)

- AGEC 21700 - Economics or
- ECON 21000 - Principles Of Economics
- ECON 25100 - Microeconomics
- ECON 25200 - Macroeconomics
Accounting Selective (3 credits)

- MGMT 20000 - Introductory Accounting (Required for MGMT Minor)
- MGMT 20010 - Business Accounting

Statistics Selective (3 credits)

- STAT 22500 - Introduction To Probability Models
- STAT 30100 - Elementary Statistical Methods
- STAT 50100 - Experimental Statistics I
- STAT 51100 - Statistical Methods

Professional Speaking Selective (3 credits)

- COM 31500 - Speech Communication Of Technical Information
- COM 32000 - Small Group Communication
- COM 32500 - Interviewing: Principles And Practice
- COM 41500 - Discussion Of Technical Problems

Professional Writing Selective (3 credits)

- ENGL 42000 - Business Writing
- ENGL 42100 - Technical Writing

Global and Professional Issues Selective (3 credits)

- CNIT 32000 - Credit Hours: 3.00

General Business Selective (3 credits)

- IT 10400 - Industrial Organization

Humanities Selective (3 credits)

(satisfies Human Cultures Humanities for core). See approved list at:
http://www.purdue.edu/provost/initiatives/curriculum/course.html

Behavioral/Social Science Foundational Selective

(satisfies Human Culture Behavioral/Social Science for core). See approval list at:
http://www.purdue.edu/provost/initiatives/curriculum/course.html
University Core Requirements

- Human Cultures Humanities - UCC Selective
- Human Cultures Behavioral/Social Science - UCC Selective
- Information Literacy - TECH 12000 - Design Thinking In Technology
- Science #1 - UCC Selective
- Science #2 - UCC Selective
- Science, Technology & Society Selective - TECH 12000 - Design Thinking In Technology

- Written Communication - ENGL 10600 - First-Year Composition or
- Written Communication - ENGL 10800 - Accelerated First-Year Composition

- Oral Communication - COM 11400 - Fundamentals Of Speech Communication
- Quantitative Reasoning - MA 16010 - Applied Calculus I
- Quantitative Reasoning - MA 16020 - Applied Calculus II

Program Requirements

Fall 1st Year

First Semester

- CNIT 18000 - Introduction To Systems Development
- ENGL 10600 - First-Year Composition * or
- ENGL 10800 - Accelerated First-Year Composition *
- IT 10400 - Industrial Organization
- MA 16010 - Applied Calculus I *
- TECH 12000 - Design Thinking In Technology *

15 Credits

Spring 1st Year

Second Semester

- CNIT 15501 - Introduction To Software Development Concepts
- CNIT 17600 - Information Technology Architectures
- COM 11400 - Fundamentals Of Speech Communication *
- MA 16020 - Applied Calculus II *
- OLS 25200 - Human Relations In Organizations
15 Credits

Fall 2nd Year

Third Semester

- CNIT 25501 - Object-Oriented Programming Introduction
- CNIT 27200 - Database Fundamentals
- Communication Selective \(^1\) - Credit Hours: 3.00
- PHIL 15000 - Principles Of Logic
- Science Selective \(^3\) - Credit Hours: 3.00 *

15 Credits

Spring 2nd Year

Fourth Semester

- CNIT 24200 - System Administration
- CNIT 28000 - Systems Analysis And Design Methods
- Economics Selective \(^2\) - Credit Hours: 3.00
- Statistics Selective \(^5\) - Credit Hours: 3.00
- Lab Science Selective \(^6\) - Credit Hours: 3.00 *

15 Credits

Fall 3rd Year

Fifth Semester

- CNIT 38000 - Advanced Analysis and Design
- Global and Professional Issues Selective \(^12\) - Credit Hours: 3.00 *

- CNIT 31500 - Systems Programming (Programming Selective) or
- CNIT 32500 - Object-Oriented Application Development (Programming Selective)

- Professional Speaking Selective \(^8\) - Credit Hours: 3.00
- Accounting Selective \(^4\) - Credit Hours: 3.00

16 Credits
Spring 3rd Year

Sixth Semester

- SAD Cognate Selective - Credit Hours: 3.00
- CNIT 39200 - Enterprise Data Management
- Professional Writing Selective - Credit Hours: 3.00
- Interdisciplinary Selective - Credit Hours: 3.00
- CGT 25600 - Principles Of User Experience Design

15 Credits

Fall 4th Year

Seventh Semester

- Interdisciplinary Selective - Credit Hours: 3.00
- Interdisciplinary Selective - Credit Hours: 3.00
- SAD Cognate Selective - Credit Hours: 3.00
- Information Systems Selective - Credit Hours: 3.00
- Humanities Foundational Selective - Credit Hours: 3.00 *

15 Credits

Spring 4th Year

Eighth Semester

- CNIT 48000 - Managing Information Technology Projects
- Information Systems Selective - Credit Hours: 3.00
- Interdisciplinary Selective - Credit Hours: 3.00
- Interdisciplinary Selective - Credit Hours: 3.00
- Behavioral/Social Sciences Foundational Selective - Credit Hours: 3.00 *

15 Credits

121 Total Credits

Note
Fulfills University core

1. Students must earn a C- or better in all CNIT courses that are a prerequisite to CNIT courses.
2. 120 semester credits listed above are required for the CIT Bachelor of Science degree with a SA&D concentration.
3. 2.0 Graduation GPA required for Bachelor of Science degree.
4. 2.0 Graduation GPA in all CNIT courses required for Bachelor of Science degree.
5. CNIT COURSES MAY BE TAKEN NO MORE THAN THREE TIMES (INCLUSIVE OF W, WF, OR WN, AND I GRADES): STUDENTS NOT FULFILLING THIS POLICY MUST WITHDRAW FROM THE PROGRAM.
6. ANY COURSE TAKEN AT PURDUE CAN BE ATTEMPTED NO MORE THAN THREE TIMES (INCLUSIVE OF W, WF, WN, I, AND IF).

Degree Requirements

The student is ultimately responsible for knowing and completing all degree requirements.

myPurduePlan is knowledge source for specific requirements and completion.

CIT Supplemental Information for Systems Analysis and Design Concentration

All prerequisites must be met

Communication Selective

Communication Selective

\[1\] Communication Selective

- COM 21000 - Debating Public Issues
- COM 21200 - Approaches To The Study Of Interpersonal Communication
- COM 31400 - Advanced Presentational Speaking
- COM 31500 - Speech Communication Of Technical Information
- COM 31800 - Principles Of Persuasion
- COM 32000 - Small Group Communication
- COM 32400 - Introduction To Organizational Communication

Economics Selective

\[2\] Economics Selective

- AGEC 21700 - Economics or
- ECON 21000 - Principles Of Economics

- ECON 25100 - Microeconomics
- ECON 25200 - Macroeconomics

Science Selective & Lab Selective

\[3\] Science Selective & \[6\] Lab Science Selective (must take at least 3 credits of Science Selective with a Lab Component)
See approved list at: http://www.purdue.edu/provost/initiatives/curriculum/course.html and check schedule of classes to ensure the course is being offered with a lab component.

The following courses are typically offered with a lab component:

- BIOL 11000 - Fundamentals Of Biology I *
- BIOL 11100 - Fundamentals Of Biology II *
- BIOL 13500 - First year Biology Laboratory *
- BIOL 14501 - First Year Biology Laboratory With Neuro Research Project *
- BIOL 14502 - First Year Biology Laboratory With Micro Research Project *
- BIOL 14600 - Introduction To Biology *
- BIOL 20300 - Human Anatomy And Physiology *
- BIOL 20400 - Human Anatomy And Physiology *
- BIOL 20500 - Biology For Elementary School Teachers *
- BIOL 20600 - Biology For Elementary School Teachers *
- BTNY 11000 - Introduction To Plant Science *
- CHM 11100 - General Chemistry *
- CHM 11200 - General Chemistry *
- CHM 11500 - General Chemistry *
- CHM 11600 - General Chemistry *
- CHM 12500 - Introduction To Chemistry I *
- CHM 12600 - Introduction To Chemistry II *
- CHM 13600 - General Chemistry Honors *
- CHM 20000 - Fundamentals Of Chemistry *
- CHM 12901 - General Chemistry With A Biological Focus *
- EAPS 10200 - Earth Science For Elementary Teachers *
- EAPS 10900 - The Dynamic Earth *
- HORT 10100 - Fundamentals Of Horticulture *
- PHYS 17200 - Modern Mechanics *
- PHYS 21800 - General Physics *
- PHYS 21900 - General Physics II *
- PHYS 22000 - General Physics *
- PHYS 22100 - General Physics *
- PHYS 27200 - Electric And Magnetic Interactions *

Accounting Selective

Accounting Selective

4 Accounting Selective

- MGMT 20000 - Introductory Accounting (Required for MGMT Minor)
- MGMT 20010 - Business Accounting

Statistics Selective

Statistics Selective

5 Statistics Selective

- STAT 22500 - Introduction To Probability Models
• STAT 30100 - Elementary Statistical Methods
• STAT 50100 - Experimental Statistics I
• STAT 51100 - Statistical Methods

CIT-SAD Cognate Selective Options (6 Credits)

7 CIT-SAD Cognate Selective Options

• CNIT 38301 - Packaged Application Software Solutions
• CNIT 40500 - Software Development Methodologies
• CNIT 49900 - Topics In Computer And Information Technology

Professional Speaking Selective

8 Professional Speaking Selective

• COM 31500 - Speech Communication Of Technical Information
• COM 32000 - Small Group Communication
• COM 32500 - Interviewing: Principles And Practice
• COM 41500 - Discussion Of Technical Problems

Interdisciplinary Selectives (15 credits)

9 Interdisciplinary Selectives (15 credits)

Any University recognized minor with at least 15 credits will fulfill this requirement.
http://www.purdue.edu/advisors/courses_majors/minors.html

• COM 32400 - Introduction To Organizational Communication
• ECET 22400 - Electronic Systems
• ECET 37400 - Digital Telecommunications
• ENTR 20000 - Introduction To Entrepreneurship And Innovation
• ENTR 31000 - Marketing And Management For New Ventures
• IET 45100 - Monetary Analysis For Industrial Decisions
• IT 34200 - Introduction To Statistical Quality
• IT 34500 - Automatic Identification And Data Capture
• IT 45000 - Production Cost Analysis
• MET 45100 - Manufacturing Quality Control
• MET 45100 - Manufacturing Quality Control
• MFET 24300 - Automated Manufacturing I
• MFET 40000 - Computer Integrated Manufacturing
• MFET 45100 - Manufacturing Quality Control
• MGMT 20100 - Management Accounting I
• MGMT 30400 - Introduction To Financial Management
• MGMT 32300 - Principles Of Marketing
• MGMT 44301 - Management Of Human Resources
• MGMT 45500 - Legal Background For Business I
• OLS 37500 - Training Methods
• OLS 37600 - Human Resource Issues
• OLS 38600 - Leadership For Organizational Change And Innovation
• OLS 47700 - Conflict Management
• OLS 48400 - Leadership Strategies For Quality And Productivity
• PSY 27200 - Introduction To Industrial-Organizational Psychology

Information Systems Selectives (6 credits)

10 Any non-required 30000 level or higher CNIT course or EPICS (EPCS): participation in EPICS requires CIT faculty approval; CGT courses 30000 level or higher

Professional Writing Selective

11 Professional Writing Selective

• ENGL 42000 - Business Writing
• ENGL 42100 - Technical Writing

Global and Professional Issues Selective

12 Global and Professional Issues Selective

• CNIT 32000 - Policy, Regulation, and Globalization in IT

Humanities Foundational Selective

14 see http://www.purdue.edu/provost/initiatives/curriculum/course.html

Behavioral/Social Sciences Foundational Selective

15 see http://www.purdue.edu/provost/initiatives/curriculum/course.html

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

Critical Course

The ♠ course is considered critical. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.
Expired Course

Any course without a link to its description is one that has been expired. However, this course could fulfill the degree requirement historically.

Minor

Computer and Information Technology Minor

FOR STUDENTS EARNING DEGREES OUTSIDE COMPUTER & INFORMATION TECHNOLOGY

EFFECTIVE FALL 2014

Minor Code: CNIT
15 Credit Hours Required
CNIT 18000 (3 credits) required + 12 credits CNIT Selectives

Requirements for the Minor

- CNIT 18000 - Introduction To Systems Development
- CNIT Selective - Credit Hours: 3.00
- CNIT Selective - Credit Hours: 3.00
- CNIT Selective - Credit Hours: 3.00
- CNIT Selective - Credit Hours: 3.00

15 Credits

Minor Requirements

1. A 2.0 GPA in all minor courses
2. No course may be taken pass/fail
3. Transfer credit, course substitutions, and credit by exam limited to three (3) credit hours
4. Only one (1) of CNIT 10500, CNIT 15500, or CNIT 17500 may be used to fulfill the minor requirements
5. CNIT 13600 cannot be used to fulfill the minor requirements
6. Course requisites (pre-requisites, concurrent pre-requisites, and restrictions) must be met

The CIT minor can be attached to any Purdue University major that will accommodate or allow it.

Department of Computer Graphics Technology

Overview
With eight areas of specialization to choose from, undergraduate computer graphics students can align their plan of study with their talents. Real-world projects and research opportunities help students put theories into practice.

Faculty

https://polytechnic.purdue.edu/departments/computer-graphics-technology/directory

Contact Information

Computer Graphics Technology Department

Knoy Hall
Room 363
401 N. Grant St.
West Lafayette, IN 47907
Phone: 765-494-7505
Email: cgtinfo@purdue.edu

Contact an advisor

Graduate Information

For Graduate Information please see Computer Graphics Technology Graduate Program Information.

Baccalaureate

Computer Graphics Technology, BS

About the Program

Use your creativity to bring all kinds of ideas to life, from animation to production simulations, and from gaming to building designs. In Purdue's computer graphics program, you will turn your ideas (and ideas of others) into models, digital animations, interactive games and more. Wherever people need to visualize a final product or another world, the skills of a computer graphics graduate can help.

In addition to a general computer graphics degree, you can develop more in-depth knowledge and skills in other areas:

- Animation
- Building Information Modeling/Construction Graphics
- Computer Gaming Development
- Information Visualization
- Interactive Multimedia Design
- User Experience/Mobile Computing/Human Computer Interaction
- Virtual Product Integration
Summary of Program Requirements

The Summary of Program Requirements for Computer Graphics Technology is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

TCGT-BS
Catalog Term: 201510
120 Credit Hours to Graduate
"C-" or better required in all major courses

Departmental/Program Major Courses (41 credits)

Required Major Courses (17 credits)

- CGT 10101 - Foundations Of Computer Graphics Technology
- CGT 11800 - Fundamentals Of Imaging Technology
- CGT 14100 - Internet Foundations, Technologies And Development
- CGT 21500 - Computer Graphics Programming I
- CGT 41100 - Contemporary Problems In Applied Computer Graphics
- CGT 45000 - Professional Practices

Major Selectives* - Select 8 of the following courses (24 credits)

http://www.tech.purdue.edu/CGT/academics/coursepages.cfm

- CGT 10000 - 100 Level Selective (CGT 11100 or CGT 11600) - Credit Hours: 3.00
- CGT Selective - Credit Hours: 3.00
- CGT Selective - Credit Hours: 3.00
- CGT Selective - Credit Hours: 3.00
- CGT Selective - Credit Hours: 3.00
- CGT Selective - Credit Hours: 3.00
- CGT Selective - 300 or 400 Level Selective - Credit Hours: 3.00
- CGT Selective - 300 or 400 Level Selective - Credit Hours: 3.00
- CGT Selective - 400 Level Selective - Credit Hours: 3.00

Other Departmental /Program Course Requirements (28 credits)

- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core)
• ECON 21000 - Principles Of Economics (satisfies Human Culture Behavior/Social Science for core)
• ENGL 10600 - First-Year Composition (satisfies Written Communication for core) or
• ENGL 10800 - Accelerated First-Year Composition (satisfies Written Communication for core)
• MA 15800 - Precalculus- Functions And Trigonometry (satisfies Quantitative Reasoning Selective for core)
• MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning Selective for core)
• MGMT 45500 - Legal Background For Business I
• PHYS 21800 - General Physics (satisfies Science Selective for core)
• PSY 12000 - Elementary Psychology (satisfies Human Culture Behavioral/Social Science for core)
• TECH 12000 - Design Thinking In Technology (satisfies Information Literacy AND Science, Technology & Society Selective for core)

Electives (51 credits)

• Human Behavior Humanities for core - Credit Hours: 3.00
• Technical Elective - Credit Hours: 3.00
• Statistics Selective - Credit Hours: 3.00
• Free Elective - Credit Hours: 3.00
• Free Elective - Credit Hours: 3.00
• Science Selective for core - Credit Hours: 3.00
• Technical Elective - Credit Hours: 3.00
• Management Elective - Credit Hours: 3.00
• Free Elective - Credit Hours: 3.00
• Humanities Elective - Credit Hours: 3.00
• Technical Elective - Credit Hours: 3.00
• Communication Selective - Credit Hours: 3.00
• Free Elective - Credit Hours: 3.00
• Humanities Elective - Credit Hours: 3.00
• Advanced English Selective - Credit Hours: 3.00
• CGT Global Selective - Credit Hours: 3.00
• Free Elective - Credit Hours: 3.00

University Core Requirements

• Human Cultures Humanities
• Human Cultures Behavioral/Social Science
• Information Literacy
• Science #1
• Science #2
• Science, Technology, and Society
• Written Communication
• Oral Communication
• Quantitative Reasoning

Program Requirements
Fall 1st Year

- CGT 10101 - Foundations Of Computer Graphics Technology
- CGT 11800 - Fundamentals Of Imaging Technology *
- TECH 12000 - Design Thinking In Technology *
- English Selective - Credit Hours: 3.00 *
- MA 15800 - Precalculus- Functions And Trigonometry *

14 Credits

Spring 1st Year

- CGT 10000 - Selective (10000 Level) - Credit Hours: 3.00
- CGT 14100 - Internet Foundations,Technologies And Development
- COM 11400 - Fundamentals Of Speech Communication *
- PSY 12000 - Elementary Psychology *
- MA 16010 - Applied Calculus I *

15 Credits

Fall 2nd Year

- CGT 21500 - Computer Graphics Programming I
- Human Behavior: Human Core - Credit Hours: 3.00 *
- PHYS 21800 - General Physics *
- Free Elective - Credit Hours: 3.00
- Technical Elective - Credit Hours: 3.00

16 Credits

Spring 2nd Year

- CGT Selective - Credit Hours: 3.00
- CGT Selective - Credit Hours: 3.00
- Science Foundational Selective Core - Credit Hours: 3.00 *
- ECON 21000 - Principles Of Economics
- Free Elective - Credit Hours: 3.00
15 Credits

Fall 3rd Year

- CGT Selective - Credit Hours: 3.00
- CGT Selective - Credit Hours: 3.00
- Humanities Elective - Credit Hours: 3.00
- Advanced English Selective - Credit Hours: 3.00
- Free Elective - Credit Hours: 3.00

15 Credits

Spring 3rd Year

- CGT Selective (30000 or 40000 Level) - Credit Hours: 3.00
- CGT Selective (30000 or 40000 Level) - Credit Hours: 3.00
- CGT Globalization Selective - Credit Hours: 3.00
- Statistics Selective - Credit Hours: 3.00
- Management Selective - Credit Hours: 3.00

15 Credits

Fall 4th Year

- CGT Selective (40000 Level) - Credit Hours: 3.00
- Humanities Elective - Credit Hours: 3.00
- Free Elective - Credit Hours: 3.00
- MGMT 45500 - Legal Background For Business I
- Technical Elective - Credit Hours: 3.00

15 Credits

Spring 4th Year

- CGT 45000 - Professional Practices
- CGT 41100 - Contemporary Problems In Applied Computer Graphics
- Free Elective - Credit Hours: 3.00
- Communication Selective - Credit Hours: 3.00
- Technical Elective - Credit Hours: 3.00
15 Credits

Note

*Satisfies a University Core Requirement

Students must earn a "C-" or better in all CGT courses.

120 semester credits required for Bachelor of Science degree.

2.0 Graduation GPA required for Bachelor of Science degree.

Purdue policy states that a student may attempt a course no more than three (3) times. An attempt is defined as all courses displayed on a student's transcript including, but not limited to A,B,C,D,E,F,W,WF,I and IF

Degree Requirements

The student is ultimately responsible for knowing and completing all degree requirements.

myPurdue Plan is knowledge source for specific requirements and completion

Supplemental CGT Information

CGT Selectives

10000 Selective

- CGT 11100 - Designing For Visualization And Communication
- CGT 11600 - Geometric Modeling For Visualization And Communication

Product Lifecycle Management

- CGT 22600 - Introduction To Constraint-Based Modeling
- CGT 32600 - Graphics Standards For Product Definition (SP)
- CGT 42300 - Product Data Management (SP)
- CGT 42600 - Industry Applications Of Simulation And Visualization (FA)

Computer Animation

- CGT 24100 - Introduction to Computer Animation
- CGT 34000 - Digital Lighting And Rendering for Computer Animation
- CGT 34100 - Motion for Computer Animation
- CGT 34600 - Digital Video And Audio
- CGT 44200 - Production for Computer Animation (FA)
- CGT 44600 - Post-Production And Special Effects For Computer Animation (SP)

**Construction Graphics**

- CGT 26200 - Introduction To Construction Graphics
- CGT 36000 - Applications Of Construction Documentation I (SP)
- CGT 46000 - Building Information Modeling For Commercial Construction (SP)
- CGT 46200 - Applications Of Construction Documentation II (FA)

**Web Programming, Gaming & Design**

- CGT 25600 - Principles Of User Experience Design (SP)
- CGT 30800 - Prepress Production And Design (FA)
- CGT 34500 - Game And Simulation Development (FA)
- CGT 35300 - Principles Of Interactive And Dynamic Media
- CGT 35600 - Web Programming, Development And Data Integration
- CGT 44500 - Video Game Design And Development (SP)
- CGT 45600 - Advanced Web Programming, Development And Data Integration (SP)

**Technical Elective**

Any course within the College of Technology, Engineering, Management, or Science.

**Human Cultures: Humanities Core**

See [http://www.purdue.edu/provost/initiatives/curriculum/course.html](http://www.purdue.edu/provost/initiatives/curriculum/course.html) for approved Science Core Courses.

**Communication Selective**

- COM 30000 or 40000 level

**Advanced English Selective**

- ENGL 20500 - Introduction To Creative Writing
- ENGL 30400 - Advanced Composition
- ENGL 41900 - Multimedia Writing
- ENGL 42000 - Business Writing
- ENGL 42100 - Technical Writing

**Science Foundational Selective Core**
Statistics Selective

- STAT 22500 - Introduction To Probability Models
- STAT 30100 - Elementary Statistical Methods
- PSY 20100 - Introduction To Statistics In Psychology
- IT 34200 - Introduction To Statistical Quality

Management Selective

Any course in Organizational Leadership & Supervision (OLS), Management (MGMT), Economics (ECON), Entrepreneurship (ENTR), or Organizational Behavior & Human Resources (OBHR)

CGT Globalization Selective

- AD 25500 - Art Appreciation
- AD 45400 - Modern Architecture
- AGEC 25000 - Economic Geography Of World Food And Resources
- ANTH 10000 - Introduction To Anthropology
- ANTH 20500 - Human Cultural Diversity
- ANTH 21200 - Culture, Food And Health
- ANTH 23000 - Gender Across Cultures
- ANTH 31200 - The Archaeology Of Ancient Egypt And The Near East
- ANTH 32700 - Environment And Culture
- ANTH 33600 - Human Variation
- ANTH 38000 - Using Anthropology In The World
- ARAB 23000 - Arabic Literature In Translation
- ASAM 24000 - Introduction To Asian American Studies
- ASAM 34000 - Contemporary Issues In Asian American Studies
- CHNS 28000 - Topics in Chinese Civilization and Culture
- CLCS 18100 - Classical World Civilizations
- CLCS 23100 - Survey Of Latin Literature
- CLCS 28000 - Topics In Classical Civilization
- CLCS 38500 - Science, Medicine And Magic In The Ancient West
- CMPL 23000 - Introduction To Comparative Literature
- CMPL 26600 - World Literature: From The Beginnings To 1700 A D
- CMPL 26700 - World Literature: From 1700 A D To The Present
- COM 22400 - Communicating In The Global Workplace
- COM 30300 - Intercultural Communication
- EAPS 37500 - Great Issues - Fossil Fuels, Energy And Society
- EEE 35500 - Engineering Environmental Sustainability
- ENGL 23000 - Great Narrative Works
- ENGL 24000 - Survey Of The British Literature: From The Beginnings Through The Neoclassical Period
- ENGL 24100 - Survey Of The British Literature: From The Rise Of Romanticism To The Modern Period
- ENGL 26600 - World Literature: From The Beginnings To 1700 A.D.
- ENGL 26700 - World Literature: From 1700 A.D. To The Present
- ENGL 34100 - Topics In Science, Literature, And Culture
- FNR 10300 - Introduction To Environmental Conservation
- HDFS 28000 - Diversity In Individual And Family Life
- HEBR 28000 - Modern Israel: Cinema, Literature, Politics And History
- HEBR 28400 - Ancient Near Eastern History And Culture
- HIST 10300 - Introduction To The Medieval World
- HIST 10400 - Introduction To The Modern World
- HIST 10500 - Survey Of Global History
- HIST 20400 - East Asia in the Modern World
- HIST 24100 - East Asia In The Modern World
- HIST 24300 - South Asian History And Civilizations
- HIST 24500 - Introduction To The Middle East History And Culture
- HIST 25000 - United States Relations With The Middle East And North Africa
- HIST 27200 - Introduction To Modern Latin American History (1810 To The Present)
- HIST 31700 - A History Of The Christian Church And The Expansion Of Christianity I
- HIST 32900 - History Of Women In Modern Europe
- HIST 33400 - Science And Technology In Western Civilization II
- HIST 34200 - Africa And The West
- HIST 35100 - The Second World War
- HIST 36100 - Violence in Africa
- HIST 37500 - Women In America Since 1870
- JPNS 28000 - Introduction To Modern Japanese Civilization
- JWST 33000 - Introduction To Jewish Studies
- LC 23500 - East Asian Literature In Translation
- LC 23900 - Women Writers In Translation
- PHIL 11400 - Global Moral Issues
- PHIL 20600 - Philosophy Of Religion
- PHIL 21900 - Introduction To Existentialism
- PHIL 24000 - Social And Political Philosophy
- PHIL 24200 - Philosophy, Culture, And The African American Experience
- PHIL 27000 - Biomedical Ethics
- PHIL 29000 - Environmental Ethics
- PHIL 33000 - Religions of the East
- PHIL 33100 - Religions of the West
- POL 13000 - Introduction To International Relations
- POL 14100 - Governments Of The World
- POL 22200 - Women, Politics, And Public Policy
- POL 23000 - Introduction To The Study Of Peace
- POL 23100 - Introduction To United States Foreign Policy
- POL 23500 - International Relations Among Rich And Poor Nations
- POL 23700 - Modern Weapons And International Relations
- POL 30400 - Israel and World Politics
- POL 32700 - Global Green Politics
- POL 34200 - Govt and Politics in the Communist Successor States
- POL 34500 - West European Democracies In The Post-Industrial Era
- POL 34800 - East Asian Politics
- SOC 33800 - Global Social Movements
• SOC 33900 - Introduction To The Sociology Of Developing Nations
• TECH 33000 - Technology And The Global Society
• Any foreign language course of 201, 202, 301, 302, 401, 402, or 235
• Any Study Abroad experience on your Purdue Transcript

Departmental Policy

It is the responsibility of each student to assure that he or she fulfills the necessary pre-requisites and courses to meet graduation requirements. Questions may be directed to a CGT advisor.

Each student must have 32 credit hours of 300- or 400-level Purdue courses for graduation.

Minors Approved by CGT Faculty

Art & Design (ARTS) https://www.cla.purdue.edu/students/academics/minors/asdm.html

Building Construction Management (BCMT) http://www.tech.purdue.edu/bcm/academics/undergraduate/bcm-minor/

Computer & Information Technology (CNIT)

Computer Science (CS) http://www.cs.purdue.edu/academic_programs/undergraduate/curriculum/minor/index.sxhtml

Film/Video Studies (FILV) https://www.cla.purdue.edu/students/academics/minors/ifvm.html


Management (MGMT) http://www.krannert.purdue.edu/undergraduate/current-students/MGMT%20Minor%20Requirements.pdf

Organizational Leadership & Supervision (OLSV)
http://www.tech.purdue.edu/TLI/academics/undergraduate/OLS/ols_minors.cfm

Psychology (PSY) http://www.purdue.edu/hhs/psy/undergraduate/majors_req_courses/index.php

Foreign Language: Choose a language from this page http://www.cla.purdue.edu/academics/programs/minors/

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

Critical Course

The ♦ course is considered critical. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Expired Course
Minor

Construction Graphics Minor

With access to the latest technology, the minor in construction graphics - building information modeling (BIM) will expose students to BIM in the architecture, engineering and construction (AEC) industry. Students who complete the minor will gain knowledge in current and emerging graphics theories and computer graphics technologies associated with design, documentation, modeling in construction.

Availability

The BIM minor is open to any Purdue University student on the West Lafayette campus.

Requirements

- All courses in the minor must be taken for a grade. P/NP is not an option.
- A grade of "C-" or better must be obtained in all BIM minor classes.
- Only students pursuing four-year degrees are eligible for the BIM minor.

Prerequisite Courses

- None

Required Courses (12 credit hours)

- CGT 26200 - Introduction To Construction Graphics - credit given to students who successfully complete CGT 16400
- CGT 36000 - Applications Of Construction Documentation I
- CGT 46200 - Applications Of Construction Documentation II
- CGT 46000 - Building Information Modeling For Commercial Construction

Note

Other independent courses may be offered upon student request to the major professor in charge of BIM.

Product Lifecycle Management Minor
A minor in product lifecycle management (PLM) will expose any Purdue major to manufacturing graphics expertise. Students who complete the minor will gain applied knowledge in current and emerging graphics theories and computer technologies associated with the design, documentation, and manufacture and support of products and related services.

**Availability**

The PLM minor is open only to any Purdue University West Lafayette campus major.

**Requirements**

All courses in the minor must be taken for a grade. P/NP is not an option.

A grade of "C-" or better must be obtained in all PLM minor classes.

Only students pursuing four-year degrees are eligible for the PLM minor.

**Prerequisite Courses**

One of the following prerequisite courses is required before enrolling in CGT 22600:

- CGT 11000 - Technical Graphics Communications
- CGT 11600 - Geometric Modeling For Visualization And Communication
- CGT 16300 - Graphical Communication And Spatial Analysis
- CGT 16400 - Graphics For Civil Engineering And Construction
- An approved substitution

**Required Courses (9 credit hours)**

All courses in the minor must be taken for a grade. A grade of "C-" or better is required in all classes.

Select three from the following:

- CGT 22600 - Introduction To Constraint-Based Modeling
- CGT 32600 - Graphics Standards For Product Definition

Choose one

- CGT 42300 - Product Data Management
- CGT 42600 - Industry Applications Of Simulation And Visualization

**Note**

Other courses outside of the PLM minor offered by the CGT will not be available for enrollment for non-CGT majors who are accepted in the CGT/PLM minor.
School of Engineering Technology

Overview

In Purdue's engineering technology degree programs, students learn about and practice designing, building, testing and refining. They use class projects to discover how to use the right materials, the right sensors and electronic parts, and the right processes to work efficiently and be attractive to consumers.

Faculty

https://polytechnic.purdue.edu/schools/engineering-technology/directory

Contact Information

School of Engineering Technology
Knoy Hall
Room 145
401 N. Grant St.
West Lafayette, IN 47907
Phone: 765.494.9099
Email: soet@purdue.edu

Contact an advisor

Graduate Information

For Graduate Information please see Engineering Technology Graduate Program Information.

Baccalaureate

Electrical Engineering Technology, BS

About the Program

Purdue Polytechnic Institute

The electrical engineering principles you will learn can be applied in a wide range of careers, including biomedical, green energy, transportation, communications, entertainment and manufacturing. Our graduates have played a part in scientific advancements in a variety of industries. They have impacted lives and improved everyday uses of technology and learn to work with
microcontrollers, Field Programmable Gate Arrays (FPGA), Digital Signal Processors (DSP), embedded Systems-On-a-Chip (SOC), embedded workstations, and distributed computing platforms and more.

Students in this program can apply to participate in a five-year combined bachelor's/master's degree program in electrical engineering technology.

The electrical engineering technology degree program is accredited by the Engineering Technology Accreditation Commission of ABET, www.abet.org.

This program is also offered at the Purdue College of Technology statewide locations in Kokomo, New Albany, and South Bend.

Electrical Engineering Technology Website

Summary of Program Requirements

The Summary of Program Requirements for Electrical Engineering Technology is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

TECET-BS
EETC
120-cr for graduation
"D-" or better required in all major courses

Departmental/Program Major Courses (120 credits)

Required Major Courses (34 credits)

- ECET 12000 - Gateway To Electrical Engineering Technology
- ECET 17700 - Data Acquisition And Systems Control
- ECET 17900 - Introduction To Digital Systems
- ECET 22000 - Professional Career Development
- ECET 22700 - DC And Pulse Electronics
- ECET 22900 - Concurrent Digital Systems
- ECET 27000 - Electronics Prototype Development And Construction
- ECET 27300 - Modern Energy Systems
- ECET 27400 - Wireless Communications
- ECET 38001 - Global Professional Issues In Electrical Engineering Technology
- ECET 43000 - Electrical And Electronic Product And Program Management
- ECET 46000 - Project Design And Development

ECET Selectives (18 credits)
Select six of the following courses by category

- **ECET Selectives - Credit Hours: 12.00**

**ECET Sophomore Selective**

choose from

- ECET 27700 - AC And Power Electronics or
- ECET 27900 - Embedded Digital Systems

**ECET Advanced Analysis Selective**

choose from

- ECET 33500 - Computer Architecture And Performance Evaluation
- ECET 33700 - Analog Signal Processing
- ECET 33900 - Digital Signal Processing

**Other Departmental/Program Course Requirements (68 credits)**

- CNIT 10500 - Introduction To C Programming
- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core)
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
- MA 16021 - Applied Calculus II And Differential Equations
- PHYS 21800 - General Physics (satisfies Science for core)
- PHYS 21900 - General Physics II (satisfies Science for core)
- TECH 12000 - Design Thinking In Technology (satisfies Information Literacy and Science, Technology & Society for core)
- Business Selective (choose from list, with the requirement that the Human Cultures: Behavioral/Social Sciences category for core must be met by either the Business Selective or a General Education Selective) - Credit Hours: 3.00
- General Education Selective (choose from list, with the requirement that the Human Cultures: Behavioral/Social Sciences category for core must be met by either the Business Selective or a General Education Selective) - Credit Hours: 3.00
- General Education Human Cultures: Humanities Selective (choose from list) - Credit Hours: 3.00
- General Education Selectives (choose from list) - Credit Hours: 6.00
- Communication Selectives (choose from list) - Credit Hours: 6.00
- Technical Selectives (choose 4 additional technical courses, two of which can be ECET Selectives) - Credit Hours 12.00
- Free Elective - Credit Hours: 3.00

**English Composition Selective (3 credits)**

(satisfies Written Communication for core)

- ENGL 10600 - First-Year Composition or
ENGL 10800 - Accelerated First-Year Composition

Industrial Economics Selective (3 credits)
choose from
  - IET 45100 - Monetary Analysis For Industrial Decisions
  - IT 45000 - Production Cost Analysis

Statistics Selective (3 credits)
choose from
  - STAT 30100 - Elementary Statistical Methods
  - STAT 22500 - Introduction To Probability Models

University Core Requirements
  - Human Cultures Humanities
  - Human Cultures Behavioral/Social Science
  - Information Literacy
  - Science #1
  - Science #2
  - Science, Technology, and Society
  - Written Communication
  - Oral Communication
  - Quantitative Reasoning

Program Requirements

Accredited by the Engineering Technology Accreditation Commission of ABET, http://www.abet.org

Fall 1st Year

  - ECET 12000 - Gateway To Electrical Engineering Technology
  - ENGL 10600 - First-Year Composition * or
  - ENGL 10800 - Accelerated First-Year Composition *
  - CNIT 10500 - Introduction To C Programming
  - MA 16010 - Applied Calculus I *
  - TECH 12000 - Design Thinking In Technology *

15 Credits
Spring 1st Year

- ECET 17700 - Data Acquisition And Systems Control
- ECET 17900 - Introduction To Digital Systems
- COM 11400 - Fundamentals Of Speech Communication *
- MA 16021 - Applied Calculus II And Differential Equations *
- PHYS 21800 - General Physics *

16 Credits

Fall 2nd Year

- ECET 22000 - Professional Career Development
- ECET 22700 - DC And Pulse Electronics
- ECET 22900 - Concurrent Digital Systems
- ECET 27300 - Modern Energy Systems
- PHYS 21900 - General Physics II *

14 Credits

Spring 2nd Year

- ECET 27000 - Electronics Prototype Development And Construction
- ECET 27400 - Wireless Communications
- ECET 27700 - AC And Power Electronics or
- ECET 27900 - Embedded Digital Systems

- General Education Selective - Credit Hours: 3.00 **
- Communication Selective - Credit Hours: 3.00

15 Credits

Fall 3rd Year

- ECET 33700 - Analog Signal Processing or
- ECET 33900 - Digital Signal Processing or
- ECET Selective - Credit Hours: 3.00

- ECET Selective - Credit Hours: 3.00
- STAT 22500 - Introduction To Probability Models or
- STAT 30100 - Elementary Statistical Methods

- Communication Selective - Credit Hours: 3.00
- Business Selective - Credit Hours: 3.00 **

15 Credits

Spring 3rd Year

- ECET 33500 - Computer Architecture And Performance Evaluation or
- ECET Selective - Credit Hours: 3.00

- ECET 38001 - Global Professional Issues In Electrical Engineering Technology

- IET 45100 - Monetary Analysis For Industrial Decisions or
- IT 45000 - Production Cost Analysis

- General Education Selective - Credit Hours: 3.00
- Technical Selective - Credit Hours: 3.00

15 Credits

Fall 4th Year

- ECET 43000 - Electrical And Electronic Product And Program Management
- ECET Selective - Credit Hours: 3.00
- General Education Selective - Credit Hours: 3.00
- Technical Selective - Credit Hours: 3.00
- Technical Selective - Credit Hours: 3.00

15 Credits

Spring 4th Year

- ECET 46000 - Project Design And Development
- ECET Selective - Credit Hours: 3.00
- Free Elective - Credit Hours: 3.00
- General Education Selective - Credit Hours: 3.00
- Technical Selective - Credit Hours: 3.00
15 Credits

Note

*Fulfills University Core Curriculum requirement. **Advanced Analysis Selective: may be taken in either the Fall or Spring semester, depending on course selected.

** University Core Curriculum Human Cultures Behavioral/Social Science may be selected to satisfy either the Business Selective or a General Education Selective requirement.

1. 120 semester credits and a 2.0 Graduation GPA are required for the Bachelor of Science degree.
2. Students must earn a "D-" or better in all courses.
3. Courses at Purdue University may only be attempted a maximum of three (3) times, including W, WF, I, IF and all graded attempts.
4. ECET 43000, ECET 46000 and 12 hours of ECET Selectives must be taken at the Purdue University location conferring the degree.
5. 32 credit hours of 300-level or higher courses must be completed at Purdue University.

Degree Requirements

The student is ultimately responsible for knowing and completing all degree requirements.

myPurdue Plan is knowledge source for specific requirements and completion

Supplemental EET Information Fall 2014 Plan of Study

ECET Selectives (12 hours)

ECET Selectives can be selected from one or more of the following groups. Please note that not all ECET Selectives are offered every year.

Audio

- ECET 33700 - Analog Signal Processing
- ECET 33900 - Digital Signal Processing
- ECET 38800 - Analog IC Applications
- ECET 42800 - Audio Electronics-Selected Topics

Communications

- ECET 36400 - Fundamentals Of Electromagnetics
- ECET 37401 - Digital Communication Systems
- ECET 44400 - Wireless Systems: Design And Measurement
- ECET 48400 - Digital Wireless Systems
Computer/Digital

- ECET 32900 - Advanced Embedded Digital Systems
- ECET 33500 - Computer Architecture And Performance Evaluation
- ECET 33900 - Digital Signal Processing
- ECET 34900 - Advanced Digital Systems
- ECET 35901 - Computer Based Data Acquisition Applications
- ECET 43900 - Advanced Digital Signal Processing

Smart Living

- ECET 31100 - Electrical Systems And Signals In Healthcare
- ECET 32100 - Introduction To Nanotechnology
- ECET 32700 - Instrumentation And Data Acquisition Design
- ECET 34101 - Biocompatibility And Bio-Issues

Smart Environment

- ECET 30201 - Introduction To Industrial Controls
- ECET 32700 - Instrumentation And Data Acquisition Design
- ECET 37200 - Process Control
- ECET 38600 - Building Electrical Codes And Standard Practices
- ECET 43600 - Electrical Power Transmissions, Distribution, And Smart Control

Smart Mobility

- ECET 32300 - Introduction To Electric Vehicle Systems
- ECET 33300 - Power Electronics In Energy Systems
- ECET 37300 - Applied Electronic Drives
- ECET 42301 - Electrical Vehicle Integration And Fabrication

Study Abroad/Professional Practice

- ECET 49900 - Electrical Engineering Technology
- ECET Co-op Sessions 4 and 5

Advanced Analysis Selective (3 hours)

Choose one of the following courses in addition to the ECET Selectives:

- ECET 33500 - Computer Architecture And Performance Evaluation
- ECET 33700 - Analog Signal Processing
Technical Selectives (12 hours)

Choose courses from the following categories with no more than 6 hours at the 100 level. To ensure breadth, students may take no more than 6 hours in any one subject area. Certain courses or areas are limited to 3 hours or cannot be used, as noted below.

- **ECET**: up to 6 hours additional ECET courses. ECET 29900 is limited to 3 credit hours.
- **College of Engineering**: up to 6 hours per subject area (discipline). ME 29700 and Engineering Projects in Community Service (EPICS) are each limited to 3 credit hours. First-Year Engineering (ENGR) courses cannot be used.
- **College of Technology**: up to 6 hours per subject area (discipline). ECET Co-op Sessions 1, 2 and 3. CNIT 13600 cannot be used.
- **College of Science**: up to 6 hours per subject area (discipline) of lab-based physics (PHYS), chemistry (CHM) and biology (BIOL) courses; Computer Science (CS) courses; and higher-level mathematics (MA) courses: MA 26100, MA 26500 and MA 26600. CS 11000 and CS 23500 cannot be used.
- **College of Liberal Arts**: Up to 6 hours of THTR 25300, THTR 35300, or THTR 55300.

Communications Selective (6 hours)

Must complete at least one course from each category (oral communication and written communication).

- Oral communication (3 hours): Any communications (COM) course at the 200 level or higher.

Written communication (3 hours)

- ENGL 20500 - Introduction To Creative Writing
- ENGL 30400 - Advanced Composition
- ENGL 42000 - Business Writing
- ENGL 42100 - Technical Writing

Business Selective (3 hours)

Select one of the following:

- Any Agricultural Economics course (AGEC) at the 200 level or higher: AGEC 20000 or higher.
- Any Economics (ECON) course at the 200 level or higher: ECON 20000 or higher.
- Any Entrepreneurship (ENTR) course at the 200-level or higher: ENTR 20000 or higher.
- Any Management (MGMT) course at the 200-level or higher: MGMT 20000 or higher.
- Or select one of the following courses:

Courses that will satisfy the University Core Curriculum Human Cultures Behavior/Social Sciences (BSS) requirement are indicated with a BSS.

- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness (BSS)
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy (BSS)
- AGEC 21700 - Economics (BSS)
- AGEC 25000 - Economic Geography Of World Food And Resources (BSS)
- CSR 34200 - Personal Finance
• ECON 21000 - Principles Of Economics (BSS)
• ECON 25100 - Microeconomics (BSS)
• ECON 25200 - Macroeconomics (BSS)
• IT 10400 - Industrial Organization
• IT 23000 - Industrial Supply Chain Management
• IT 33000 - Industrial Sales And Sales Management
• IT 33200 - Purchasing, Inventory, And Warehouse Management
• OLS 25200 - Human Relations In Organizations
• OLS 27400 - Applied Leadership
• OLS 28400 - Leadership Principles
• OLS 32500 - Meeting Management

General Education Selectives (12 hours)

Select 12 hours in one or more of the subject area (discipline) listed below, with a limit of 6 hours in any one discipline; foreign languages are limited to 12 hours.

• One course must be selected from the UCC approved list of Human Culture: Humanities (http://www.purdue.edu/provost/initiatives/curriculum/course.html).
• One course must be selected from the UCC approved list of Human Culture: Behavior/Social Sciences (http://www.purdue.edu/provost/initiatives/curriculum/course.html), unless the student has selected a course indicated with a BSS for to satisfy the Business Selective requirement.

Within this framework, the student may select courses from the following subject area (discipline):

Foreign languages (except for courses in a student's native language)
African American Studies (AAS)
Art and Design (AD),
American Studies (AMST)
Anthropology (ANTH)
Asian American Studies (ASAM)
American Sign Language (ASL)
Bands (BAND)
Classics (CLCS)
Comparative Literature (CMPL)
Communication (COM)
English (ENGL),
History (HIST)
Interdisciplinary Studies (IDIS)
Linguistics (LING)
Music History and Theory (MUS)
Philosophy (PHIL)
Political Science (POL)
Psychology (PSY)
Religious Studies (REL)
Sociology (SOC)
Theater (THTR)
Women's Studies (WOST)
ROTC (AFT, MILT, NS)

Minors: Minors are offered through a variety of disciplines. The discipline offering the minor establishes the requirements. A minor is not required.
Upper-level courses: At least 32 hours of upper level (300 level or higher) must be completed at Purdue University; ECET 43000, ECET 46000 and at least 12 hours of ECET Selectives must be completed at the Purdue University location conferring the degree.

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

Critical Course

The ♦ course is considered critical. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Manufacturing Engineering Technology, Automation and Systems Integration Concentration, BS

About the Program

This is one of three majors offered for students who seek to contribute at the interface between manufacturing, electrical, mechanical, and computing areas in primarily industrial environments.

When you major in automation and systems integration engineering technology, you will address what is needed to move product concepts into efficient, automated production. The curriculum focuses on the entire design and manufacturing process; you'll understand how each team member benefits the system.

Special Features

- Learn in a hands-on environment with a 1,400-square-foot, fully functional, automated manufacturing laboratory
- Focus on applying and implementing technology, in a hands-on approach, to solve real-world problems.
- Explore a wide range of career options in product improvement, industrial processes, or plant operations
- Utilize the Polytechnic learning environment to become a career-ready graduate

ATTN: MFET students enrolled before Fall 2014

Current manufacturing engineering technology (MFET) students can use the same resources listed on this page. MFET plans of study remain active for those students already enrolled at Purdue.

Summary of Program Requirements

The Summary of Program Requirements for Manufacturing Engineering Technology-Automatic System Integration Concentration is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full
Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

**Detailed Program Requirements**

Please see below for detailed program requirements and possible selective fulfillments.

**Departmental/Program Major Courses (120 credits)**

**Required Major Courses (44 credits)**

- MET 10200 - Production Design And Specifications
- MET 11100 - Applied Statics
- MET 11300 - Mechanics Applications
- MET 14300 - Materials And Processes I
- MET 14400 - Materials And Processes II (MET Gateway Course)
- MET 16200 - Computational Analysis Tools In MET
- MET 23000 - Fluid Power
- MET 24500 - Manufacturing Systems
- MET 28400 - Introduction To Industrial Controls
- MET 38200 - Controls And Instrumentation For Automation
- MFET 34400 - Automated Manufacturing Processes
- MFET 34800 - Industrial Robotics And Motion Control
- MFET 37400 - Manufacturing Integration I
- MFET 44600 - Advanced Manufacturing Operations
- MFET 48000 - Project Planning For Integration
- MFET 48100 - Integration Of Manufacturing Systems

**MFET Selectives - (13 credits)**

- Manufacturing Graphics Selective
- CGT 22600 - Introduction To Constraint-Based Modeling
- Manufacturing Selective - Credit Hours: 3.00
- Technical Elective - Credit Hours: 3.00
- Free Elective - Credit Hours: 4.00

**Other Departmental/Program Course Requirements (63 credits)**

- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core)
- ENGL/COM Selective - Credit Hours: 3.00
- ENGL 42100 - Technical Writing
• IET 45100 - Monetary Analysis For Industrial Decisions or
• TLI 33400 - Economic Analysis For Technology Systems

• MA 15800 - Precalculus - Functions And Trigonometry
• MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
• MA 16021 - Applied Calculus II And Differential Equations
• ECET 22400 - Electronic Systems
• ECET 38001 - Global Professional Issues In Electrical Engineering Technology
• CNIT 17500 - Visual Programming
• CHM 11100 - General Chemistry
• TECH 12000 - Design Thinking In Technology (satisfies Information Literacy and Science, Technology & Society for core)
• Science Selective - Credit Hours: 3.00
• English Composition Selective (satisfies Written Communication for core) - Credit Hours: 3.00
• General Education Human Cultures: Humanities Selective (satisfies Human Cultures Humanities for core) - Credit Hours: 3.00
• General Education Human Cultures: Behavior/Social Sciences satisfies Human Cultures: Behavioral Sciences for core) - Credit Hours: 3.00
• Humanities/Social Science Elective - Credit Hours: 3.00

PHYS Selective - choose from (4 credits)

(satisfies Science for core)

• PHYS 21800 - General Physics
• PHYS 22000 - General Physics
• PHYS 17200 - Modern Mechanics

CNIT or CS Selective (3 credits)

• CNIT 10500 - Introduction To C Programming
• CS 15800 - C Programming
• CS 15900 - Programming Applications For Engineers

CGT Selective - choose from (2 credits)

• CGT 11000 - Technical Graphics Communications
• CGT 16300 - Graphical Communication And Spatial Analysis

Statistics/Quality Selective - choose between (3 credits)

• STAT 30100 - Elementary Statistical Methods
• IT 34200 - Introduction To Statistical Quality
University Core Requirements

- Human Cultures: Behavioral/Social Sciences
- Human Cultures: Humanities
- Information Literacy
- Oral Communication
- Quantitative Reasoning
- Science #1
- Science #2
- Science, Technology & Society
- Written Communication

Program Requirements

Accredited by the Engineering Technology Accreditation Commission of ABET, http://www.abet.org

Fall 1st Year

- MET 14400 - Materials And Processes II
- Freshman Composition Selective - Credit Hours: 3.00
- Free Elective - Credit Hours: 1.00
- MA 15800 - Precalculus- Functions And Trigonometry
- TECH 12000 - Design Thinking In Technology *

13 Credits

Spring 1st Year

- CHM 11100 - General Chemistry
- Humanities Selective - Credit Hours: 3.00 *
- COM 11400 - Fundamentals Of Speech Communication *
- MA 16010 - Applied Calculus I *
- MET 14300 - Materials And Processes I
- MET 16200 - Computational Analysis Tools In MET

16 Credits

Fall 2nd Year

- MA 16021 - Applied Calculus II And Differential Equations
- MET 11100 - Applied Statics
ECET 22400 - Electronic Systems
Behavioral/Social Science Selective - Credit Hours: 3.00 *
Computer Graphics Selective - Credit Hours: 2.00

14 Credits

Spring 2nd Year

- MET 10200 - Production Design And Specifications
- MET 11300 - Mechanics Applications
- MET 24500 - Manufacturing Systems
- MET 28400 - Introduction To Industrial Controls
- Physics Selective - Credit Hours: 4.00
- CNIT 17500 - Visual Programming

17 Credits

Fall 3rd Year

- MET 23000 - Fluid Power
- MFET 34400 - Automated Manufacturing Processes
- MFET 37400 - Manufacturing Integration I
- Manufacturing Graphics Selective - Credit Hours: 3.00
- Science Selective - Credit Hours: 3.00

15 Credits

Spring 3rd Year

- MET 38200 - Controls And Instrumentation For Automation
- ENGL 42100 - Technical Writing
- CNIT or CS Selective - Credit Hours: 3.00
- Manufacturing Selective - Credit Hours: 3.00
- Statistics or Quality Selective - Credit Hours: 3.00

15 Credits

Fall 4th Year
- MFET 34800 - Industrial Robotics And Motion Control
- MFET 44600 - Advanced Manufacturing Operations
- MFET 48000 - Project Planning For Integration
- IET 45100 - Monetary Analysis For Industrial Decisions or
- TLI 33400 - Economic Analysis For Technology Systems
- ECET 38001 - Global Professional Issues In Electrical Engineering Technology

15 Credits

Spring 4th Year

- MFET 48100 - Integration Of Manufacturing Systems
- English/Communication Selective - Credit Hours: 3.00
- Humanities/Social Science Selective - Credit Hours: 3.00
- Technical Selective - Credit Hours: 3.00
- Free Elective - Credit Hours: 3.00

15 Credits

Note

*Fulfills University core.

1. 120 semester credits and a 2.0 Graduation GPA are required for the Bachelor of Science degree.
2. Students must earn a “D-” or better in all courses.
3. Courses at Purdue University may only be attempted a maximum of three (3) times, including W, WF, I, IF and all graded attempts.
4. 32 credit hours of 300-level or higher courses must be completed at Purdue University.

Degree Requirements

The student is ultimately responsible for knowing and completing all degree requirements.

Degree Works is knowledge source for specific requirements and completion.

MFET Supplemental Information - Automation and Systems Integration Concentration

All prerequisites must be met.

Computer Graphics Selective
- CGT 11000 - Technical Graphics Communications
- CGT 16300 - Graphical Communication And Spatial Analysis
- IT 10500 - Industrial Technology Introduction To Design

**Manufacturing Graphics Selective**

- CGT 22600 - Introduction To Constraint-Based Modeling

**Technical Selective**

- CGT 32600 - Graphics Standards For Product Definition *(spring)*
- CGT 42300 - Product Data Management *(spring)*
- CGT 42600 - Industry Applications Of Simulation And Visualization *(fall)*
- FNR 30100 - Wood Products And Processing
- IT 33000 - Industrial Sales And Sales Management
- IT 34500 - Automatic Identification And Data Capture
- IT 35100 - Advanced Industrial Safety And Health Management
- IT 38100 - Total Productive Maintenance
- IT 43400 - Global Transportation And Logistics Management
- IT 44200 - Production Planning
- IT 48300 - Facility Design For Lean Manufacturing
- MET 30200 - CAD In The Enterprise
- MET 33400 - Advanced Fluid Power
- MET 34600 - Advanced Materials In Manufacturing
- MET 43200 - Hydraulic Motion Control Systems
- MET 43600 - Pneumatic Motion Control Systems
- MGMT 45500 - Legal Background For Business I
- OLS 28400 - Leadership Principles

**CNIT or CS Selective**

- CNIT 10500 - Introduction To C Programming
- CS 15800 - C Programming
- CS 15900 - Programming Applications For Engineers

**Statistics or Quality Selective**

- STAT 30100 - Elementary Statistical Methods
- IT 34200 - Introduction To Statistical Quality

**English/Communication Selective**
• COM 31500 - Speech Communication Of Technical Information
• COM 31800 - Principles Of Persuasion
• COM 32000 - Small Group Communication
• COM 32500 - Interviewing: Principles And Practice
• COM 41500 - Discussion Of Technical Problems
• ENGL 20500 - Introduction To Creative Writing
• ENGL 30400 - Advanced Composition
• ENGL 30900 - Computer-Aided Publishing
• ENGL 41900 - Multimedia Writing

Physics Selective

• PHYS 21800 - General Physics
• PHYS 22000 - General Physics
• PHYS 17200 - Modern Mechanics

Science Selective

• BIOL 11000 - Fundamentals Of Biology I
• BIOL 20300 - Human Anatomy And Physiology
• CHM 11200 - General Chemistry
• PHYS 21900 - General Physics II
• PHYS 22100 - General Physics
• PHYS 24100 - Electricity And Optics

Freshman Composition

• ENGL 10600 - First-Year Composition

Manufacturing Selective

A course from Technology, Engineering, Management or Science that has a connection to manufacturing process and materials, controls, systems, innovation or operations and that supports the academic interests of the students.

Processes and materials

• AT 27200 - Introduction To Composite Technology
• AT 30802 - Aircraft Materials Processes
• AT 40800 - Advanced Aircraft Manufacturing Processes
• ECET 27000 - Electronics Prototype Development And Construction

Controls
• IT 34500 - Automatic Identification And Data Capture
• IT 44500 - Problem-Solving With Automatic Data Collection

Systems

• CGT 32600 - Graphics Standards For Product Definition
• CGT 42300 - Product Data Management
• CGT 42600 - Industry Applications Of Simulation And Visualization
• MET 30200 - CAD In The Enterprise
• MET 45100 - Manufacturing Quality Control

Innovation

• OLS 48400 - Leadership Strategies For Quality And Productivity
• ENTR Courses in the Entrepreneurship Certificate program

Operations

• IT 38100 - Total Productive Maintenance
• IT 38500 - Industrial Ergonomics
• IT 44200 - Production Planning
• IT 44600 - Six Sigma Quality
• IT 48300 - Facility Design For Lean Manufacturing
• MET 54600 - Industrial Applications Of Computer Integrated Manufacturing

Humanities Foundational Selective (6 credits)

see http://www.purdue.edu/provost/initiatives/curriculum/course.html

Behavioral/Social Science Foundational Selective

see http://www.purdue.edu/provost/initiatives/curriculum/course.html

Humanities/SS Elective

A course in Psychology, Sociology, English, History, Political Science, Philosophy, Anthropology, Economics, or a foreign language. Art history, art appreciation, music appreciation or theater appreciation are acceptable. This elective is expected to be at the 200 level or above.

Free Elective

Any non-remedial course
Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

Critical Course

The ♦ course is considered critical. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Manufacturing Engineering Technology, Mechatronics Concentration, BS

About the Program

This is one of three majors offered for students who seek to contribute at the interface between manufacturing, electrical, mechanical, and computing areas in primarily industrial environments. When you major in automation and systems integration engineering technology, you will address what is needed to move product concepts into efficient, automated production. The curriculum focuses on the entire design and manufacturing process; you'll understand how each team member benefits the system.

Special Features

- Learn in a hands-on environment with a 1,400-square-foot, fully functional, automated manufacturing laboratory
- Focus on applying and implementing technology, in a hands-on approach, to solve real-world problems.
- Explore a wide range of career options in product improvement, industrial processes, or plant operations
- Utilize the Polytechnic learning environment to become a career-ready graduate

ATTN: MFET students enrolled before Fall 2014

Current manufacturing engineering technology (MFET) students can use the same resources listed on this page. MFET plans of study remain active for those students already enrolled at Purdue.

Summary of Program Requirements

The Summary of Program Requirements for Manufacturing Engineering Technology-Mechatronics Concentration is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements
Please see below for detailed program requirements and possible selective fulfillments.

**TMFET-BS**
**MFET**
120-cr for graduation
"D-" or better required in all major courses

**Departmental/Program Major Courses (120 credits)**

**Required Major Courses (32 credits)**

- MET 10200 - Production Design And Specifications
- MET 11100 - Applied Statics
- MET 11300 - Mechanics Applications
- MET 14400 - Materials And Processes II (MET Gateway Course)
- MET 16200 - Computational Analysis Tools In MET
- MET 23000 - Fluid Power
- MET 24500 - Manufacturing Systems
- MET 28400 - Introduction To Industrial Controls
- MET 38200 - Controls And Instrumentation For Automation
- MFET 34400 - Automated Manufacturing Processes
- MFET 34800 - Industrial Robotics And Motion Control
- MFET 37400 - Manufacturing Integration I

**MFET Selectives - (10 credits)**

- Mechatronics Selective - Credit Hours: 3.00
- Technical Elective - Credit Hours: 3.00
- Free Elective - Credit Hours: 4.00

**Other Departmental/Program Course Requirements (78 credits)**

- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core)
- ENGL/COM Selective - Credit Hours: 3.00
- ENGL 42100 - Technical Writing
- IET 45100 - Monetary Analysis For Industrial Decisions or
- TLI 33400 - Economic Analysis For Technology Systems
- MA 15800 - Precalculus- Functions And Trigonometry
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
- MA 16021 - Applied Calculus II And Differential Equations
- ECET 17900 - Introduction To Digital Systems
- ECET 22400 - Electronic Systems
- ECET 22700 - DC And Pulse Electronics
• ECET 29700 - Electronic Prototype Development
• ECET 32700 - Instrumentation And Data Acquisition Design
• ECET 38001 - Global Professional Issues In Electrical Engineering Technology
• ECET 43000 - Electrical And Electronic Product And Program Management
• ECET 46000 - Project Design And Development
• CNIT 10500 - Introduction To C Programming
• CHM 11100 - General Chemistry
• TECH 12000 - Design Thinking In Technology (satisfies Information Literacy and Science, Technology & Society for core)
• Science Selective - Credit Hours: 3.00
• English Composition Selective (satisfies Written Communication for core) - Credit Hours: 3.00
• General Education Human Cultures: Humanities Selective (satisfies Human Cultures Humanities for core) - Credit Hours: 3.00
• General Education Human Cultures: Behavior/Social Sciences satisfies Human Cultures: Behavioral Sciences for core) - Credit Hours: 3.00
• Humanities/Social Science Elective - Credit Hours: 3.00

PHYS Selective - choose from (4 credits)

(satisfies Science for core)
• PHYS 21800 - General Physics
• PHYS 22000 - General Physics
• PHYS 17200 - Modern Mechanics

CGT Selective - Choose from (2 credits)

• CGT 11000 - Technical Graphics Communications or
• CGT 16300 - Graphical Communication And Spatial Analysis

Statistics/Quality Selective - choose between

• STAT 30100 - Elementary Statistical Methods or
• IT 34200 - Introduction To Statistical Quality

University Core Requirements

• Human Cultures: Behavioral/Social Sciences
• Human Cultures: Humanities
• Information Literacy
• Oral Communication
• Quantitative Reasoning
• Science #1
• Science #2
Program Requirements

Accredited by the Engineering Technology Accreditation Commission of ABET, http://www.abet.org

Fall 1st Year

- MET 14400 - Materials And Processes II
- MA 15800 - Precalculus - Functions And Trigonometry *
- Freshman Composition Selective - Credit Hours: 3.00 *
- TECH 12000 - Design Thinking In Technology *
- Free elective - Credit Hours: 1.00

13 Credits

Spring 1st Year

- CHM 11100 - General Chemistry *
- MA 16010 - Applied Calculus I
- COM 11400 - Fundamentals Of Speech Communication *
- Humanities Elective - Credit Hours: 3.00 *
- ECET 22400 - Electronic Systems
- MET 16200 - Computational Analysis Tools In MET

16 Credits

Fall 2nd Year

- ECET 22700 - DC And Pulse Electronics
- MET 11100 - Applied Statics
- MA 16021 - Applied Calculus II And Differential Equations
- Behavioral/Social Science Elective - Credit Hours: 3.00 *
- Computer Graphics Selective - Credit Hours: 2.00

14 Credits

Spring 2nd Year
• MET 10200 - Production Design And Specifications
• MET 11300 - Mechanics Applications
• MET 24500 - Manufacturing Systems
• MET 28400 - Introduction To Industrial Controls
• CNIT 10500 - Introduction To C Programming
• Physics Selective - Credit Hours: 4.00 *

17 Credits

Fall 3rd Year

• ECET 17900 - Introduction To Digital Systems
• MET 23000 - Fluid Power
• MFET 34400 - Automated Manufacturing Processes
• MFET 37400 - Manufacturing Integration I
• Science Selective - Credit Hours: 3.00 *

15 Credits

Spring 3rd Year

• ECET 27900 - Embedded Digital Systems
• ECET 38001 - Global Professional Issues In Electrical Engineering Technology
• MET 38200 - Controls And Instrumentation For Automation
• ENGL 42100 - Technical Writing
• Statistics or Quality Selective - Credit Hours: 3.00

15 Credits

Fall 4th Year

• ECET 43000 - Electrical And Electronic Product And Program Management
• ECET 32700 - Instrumentation And Data Acquisition Design
• MFET 34800 - Industrial Robotics And Motion Control
• Mechatronics Selective - Credit Hours: 3.00
• IET 45100 - Monetary Analysis For Industrial Decisions or
• TLI 33400 - Economic Analysis For Technology Systems

15 Credits
Spring 4th Year

- ECET 46000 - Project Design And Development
- Technical Selective - Credit Hours: 3.00
- Humanities/Social Science Elective - Credit Hours: 3.00
- English/Communication Selective - Credit Hours: 3.00
- Free Elective - Credit Hours: 3.00

15 Credits

Note

*Fulfills University core.

1. 120 semester credits and a 2.0 Graduation GPA are required for the Bachelor of Science degree.
2. Students must earn a "D-" or better in all courses.
3. Courses at Purdue University may only be attempted a maximum of three (3) times, including W, WF, I, IF and all graded attempts.
4. 32 credit hours of 300-level or higher courses must be completed at Purdue University.

Degree Requirements

The student is ultimately responsible for knowing and completing all degree requirements.

Degree Works is knowledge source for specific requirements and completion.

MFET Supplemental Information-Automation and Systems Integration Concentration

All prerequisites must be met.

Computer Graphics Selective

- CGT 11000 - Technical Graphics Communications
- CGT 16300 - Graphical Communication And Spatial Analysis
- IT 10500 - Industrial Technology Introduction To Design

Technical Selective

- CGT 32600 - Graphics Standards For Product Definition (spring)
- CGT 42300 - Product Data Management (spring)
- CGT 42600 - Industry Applications Of Simulation And Visualization (fall)
- FNR 30100 - Wood Products And Processing
• IT 33000 - Industrial Sales And Sales Management
• IT 34500 - Automatic Identification And Data Capture
• IT 35100 - Advanced Industrial Safety And Health Management
• IT 38100 - Total Productive Maintenance
• IT 43400 - Global Transportation And Logistics Management
• IT 44200 - Production Planning
• IT 48300 - Facility Design For Lean Manufacturing
• MET 30200 - CAD In The Enterprise
• MET 33400 - Advanced Fluid Power
• MET 34600 - Advanced Materials In Manufacturing
• MET 43200 - Hydraulic Motion Control Systems
• MET 43600 - Pneumatic Motion Control Systems
• MGMT 45500 - Legal Background For Business I
• OLS 28400 - Leadership Principles

Statistics or Quality Selective

• STAT 30100 - Elementary Statistical Methods
• IT 34200 - Introduction To Statistical Quality

English/Communication Selective

• COM 31500 - Speech Communication Of Technical Information
• COM 31800 - Principles Of Persuasion
• COM 32000 - Small Group Communication
• COM 32500 - Interviewing: Principles And Practice
• COM 41500 - Discussion Of Technical Problems
• ENGL 20500 - Introduction To Creative Writing
• ENGL 30400 - Advanced Composition
• ENGL 30900 - Computer-Aided Publishing
• ENGL 41900 - Multimedia Writing

Physics Selective

• PHYS 21800 - General Physics
• PHYS 22000 - General Physics
• PHYS 17200 - Modern Mechanics

Science Selective

• BIOL 11000 - Fundamentals Of Biology I
• BIOL 20300 - Human Anatomy And Physiology
• CHM 11200 - General Chemistry
- PHYS 21900 - General Physics II
- PHYS 22100 - General Physics
- PHYS 24100 - Electricity And Optics

Freshman Composition

- ENGL 10600 - First-Year Composition

Mechatronics Selective

- MET 48200 - Mechatronics

Humanities Foundational Selective

see http://www.purdue.edu/provost/initiatives/curriculum/course.html

Behavioral/Social Science Foundational Selective

see http://www.purdue.edu/provost/initiatives/curriculum/course.html

Humanities/SS Elective

A course in Psychology, Sociology, English, History, Political Science, Philosophy, Anthropology, Economics, or a foreign language. Art history, art appreciation, music appreciation or theater appreciation are acceptable.

Free Elective

Any non-remedial course

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

Critical Course

The ♦ course is considered critical. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Manufacturing Engineering Technology, Robotics Concentration, BS
About the Program

This is one of three majors offered for students who seek to contribute at the interface between manufacturing, electrical, mechanical, and computing areas in primarily industrial environments. When you major in automation and systems integration engineering technology, you will address what is needed to move product concepts into efficient, automated production. The curriculum focuses on the entire design and manufacturing process; you'll understand how each team member benefits the system.

Special Features

- Learn in a hands-on environment with a 1,400-square-foot, fully functional, automated manufacturing laboratory
- Focus on applying and implementing technology, in a hands-on approach, to solve real-world problems.
- Explore a wide range of career options in product improvement, industrial processes, or plant operations
- Utilize the Polytechnic learning environment to become a career-ready graduate

ATTN: MFET students enrolled before Fall 2014

Current manufacturing engineering technology (MFET) students can use the same resources listed on this page. MFET plans of study remain active for those students already enrolled at Purdue.

Summary of Program Requirements

The Summary of Program Requirements for Manufacturing Engineering Technology-Robotics Concentration is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

Departmental/Program Major Courses (120 credits)

Required Major Courses (32 credits)

- MET 10200 - Production Design And Specifications
- MET 11100 - Applied Statics
- MET 11300 - Mechanics Applications
- MET 14400 - Materials And Processes II (MET Gateway Course)
- MET 16200 - Computational Analysis Tools In MET
- MET 23000 - Fluid Power
- MET 24500 - Manufacturing Systems
- MET 28400 - Introduction To Industrial Controls
- MET 38200 - Controls And Instrumentation For Automation
- MFET 34400 - Automated Manufacturing Processes
- MFET 34800 - Industrial Robotics And Motion Control
- MFET 37400 - Manufacturing Integration I

**MFET Selectives - (16 credits)**

- Mechatronics Selective - Credit Hours: 3.00
- Technical Elective - Credit Hours: 3.00
- Fluid Controls Selective - Credit Hours: 3.00
- Free Elective - Credit Hours: 4.00

**Other Departmental/Program Course Requirements (63 credits)**

- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core)
- ENGL/COM Selective - Credit Hours: 3.00
- ENGL 42100 - Technical Writing

- IET 45100 - Monetary Analysis For Industrial Decisions or
- TLI 33400 - Economic Analysis For Technology Systems

- MA 15800 - Precalculus- Functions And Trigonometry
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
- MA 16021 - Applied Calculus II And Differential Equations
- ECET 17900 - Introduction To Digital Systems
- ECET 22400 - Electronic Systems
- ECET 22700 - DC And Pulse Electronics
- ECET 27900 - Embedded Digital Systems
- ECET 38001 - Global Professional Issues In Electrical Engineering Technology
- ECET 43000 - Electrical And Electronic Product And Program Management
- ECET 46000 - Project Design And Development
- CNIT 10500 - Introduction To C Programming
- CHM 11100 - General Chemistry
- TECH 12000 - Design Thinking In Technology (satisfies Information Literacy and Science, Technology & Society for core)
- Science Selective - Credit Hours: 3.00
- English Composition Selective (satisfies Written Communication for core) - Credit Hours: 3.00
- General Education Human Cultures: Humanities Selective (satisfies Human Cultures Humanities for core) - Credit Hours: 3.00
- General Education Human Cultures: Behavior/Social Sciences satisfies Human Cultures: Behavioral Sciences for core) - Credit Hours: 3.00
- Humanities/Social Science Elective - Credit Hours: 3.00
PHYS Selective - choose from (4 credits)
(satisfies Science for core)

- PHYS 21800 - General Physics
- PHYS 22000 - General Physics
- PHYS 17200 - Modern Mechanics

CGT Selective - choose from (2 credits)

- CGT 11000 - Technical Graphics Communications
- CGT 16300 - Graphical Communication And Spatial Analysis

Statistics/Quality Selective - choose between (3 credits)

- STAT 30100 - Elementary Statistical Methods
- IT 34200 - Introduction To Statistical Quality

University Core Requirements

- Human Cultures: Behavioral/Social Sciences
- Human Cultures: Humanities
- Information Literacy
- Oral Communication
- Quantitative Reasoning
- Science #1
- Science #2
- Science, Technology & Society
- Written Communication

Program Requirements

Accredited by the Engineering Technology Accreditation Commission of ABET, http://www.abet.org

Fall 1st Year

- MET 14400 - Materials And Processes II
- MA 15800 - Precalculus- Functions And Trigonometry *
- TECH 12000 - Design Thinking In Technology *
- Freshman Composition Selective - Credit Hours: 3.00 *
- Free elective - Credit Hours: 1.00
13 Credits

Spring 1st Year

- CHM 11100 - General Chemistry
- ECET 22400 - Electronic Systems
- MA 16010 - Applied Calculus I *
- MET 16200 - Computational Analysis Tools In MET
- COM 11400 - Fundamentals Of Speech Communication *
  Humanities Selective - Credit Hours: 3.00 *

16 Credits

Fall 2nd Year

- ECET 22700 - DC And Pulse Electronics
- MET 11100 - Applied Statics
- MA 16021 - Applied Calculus II And Differential Equations
- Behavioral/Social Science Selective - Credit Hours: 3.00 *
- Computer Graphics Selective - Credit Hours: 2.00

14 Credits

Spring 2nd Year

- MET 10200 - Production Design And Specifications
- MET 11300 - Mechanics Applications
- MET 24500 - Manufacturing Systems
- MET 28400 - Introduction To Industrial Controls
- CNIT 10500 - Introduction To C Programming
- Physics Selective - Credit Hours: 4.00

17 Credits

Fall 3rd Year

- ECET 17900 - Introduction To Digital Systems
- MET 23000 - Fluid Power
• MFET 34400 - Automated Manufacturing Processes
• MFET 37400 - Manufacturing Integration I
• Science Selective - Credit Hours: 3.00

15 Credits

Spring 3rd Year

• ECET 27900 - Embedded Digital Systems
• ECET 38001 - Global Professional Issues In Electrical Engineering Technology
• MET 38200 - Controls And Instrumentation For Automation
• ENGL 42100 - Technical Writing
• Statistics or Quality Selective - Credit Hours: 3.00

15 Credits

Fall 4th Year

• ECET 43000 - Electrical And Electronic Product And Program Management
• MFET 34800 - Industrial Robotics And Motion Control
• IET 45100 - Monetary Analysis For Industrial Decisions or
• TLI 33400 - Economic Analysis For Technology Systems
• Mechatronics Selective - Credit Hours: 3.00
• English/Communication Selective - Credit Hours: 3.00

15 Credits

Spring 4th Year

• ECET 46000 - Project Design And Development
• Technical Selective - Credit Hours: 3.00
• Fluid Controls Selective - Credit Hours: 3.00
• Humanities/Social Science Selective - Credit Hours: 3.00
• Free Elective - Credit Hours: 3.00

15 Credits
Note

*Fulfills University core.

120 semester credits and a 2.0 Graduation GPA are required for the Bachelor of Science degree.

1. Students must earn a "D-" or better in all courses.
2. Courses at Purdue University may only be attempted a maximum of three (3) times, including W, WF, I, IF and all graded attempts.
3. ECET 43000, ECET 46000 and 12 hours of ECET Selectives must be taken at the Purdue University location conferring the degree.
4. 32 credit hours of 300-level or higher courses must be completed at Purdue University.

Degree Requirements

The student is ultimately responsible for knowing and completing all degree requirements.

Degree Works is knowledge source for specific requirements and completion.

MFET Supplemental Information-Robotics Concentration

All prerequisites must be met.

Computer Graphics Selective

- CGT 11000 - Technical Graphics Communications
- CGT 16300 - Graphical Communication And Spatial Analysis
- IT 10500 - Industrial Technology Introduction To Design

Technical Selective

- CGT 32600 - Graphics Standards For Product Definition (spring)
- CGT 42300 - Product Data Management (spring)
- CGT 42600 - Industry Applications Of Simulation And Visualization (fall)
- FNR 30100 - Wood Products And Processing
- IT 33000 - Industrial Sales And Sales Management
- IT 34500 - Automatic Identification And Data Capture
- IT 35100 - Advanced Industrial Safety And Health Management
- IT 38100 - Total Productive Maintenance
- IT 43400 - Global Transportation And Logistics Management
- IT 44200 - Production Planning
- IT 48300 - Facility Design For Lean Manufacturing
- MET 30200 - CAD In The Enterprise
- MET 33400 - Advanced Fluid Power
- MET 34600 - Advanced Materials In Manufacturing
- MET 43200 - Hydraulic Motion Control Systems
• MET 43600 - Pneumatic Motion Control Systems
• MGMT 45500 - Legal Background For Business I
• OLS 28400 - Leadership Principles

Statistics or Quality Selective

• STAT 30100 - Elementary Statistical Methods
• IT 34200 - Introduction To Statistical Quality

English/Communication Selective

• COM 31500 - Speech Communication Of Technical Information
• COM 31800 - Principles Of Persuasion
• COM 32000 - Small Group Communication
• COM 32500 - Interviewing: Principles And Practice
• COM 41500 - Discussion Of Technical Problems
• ENGL 20500 - Introduction To Creative Writing
• ENGL 30400 - Advanced Composition
• ENGL 30900 - Computer-Aided Publishing
• ENGL 41900 - Multimedia Writing

Physics Selective

• PHYS 21800 - General Physics
• PHYS 22000 - General Physics
• PHYS 17200 - Modern Mechanics

Science Selective

• BIOL 11000 - Fundamentals Of Biology I
• BIOL 20300 - Human Anatomy And Physiology
• CHM 11200 - General Chemistry
• PHYS 21900 - General Physics II
• PHYS 22100 - General Physics
• PHYS 24100 - Electricity And Optics

Freshman Composition

• ENGL 10600 - First-Year Composition

Mechatronics Selective
• MET 48200 - Mechatronics
• ECET 32700 - Instrumentation And Data Acquisition Design

Fluid Controls Selective

• MET 43200 - Hydraulic Motion Control Systems
• MET 43000

Humanities Foundational Selective (6 credits)

see http://www.purdue.edu/provost/initiatives/curriculum/course.html

Behavioral/ Social Science Foundational Selective

see http://www.purdue.edu/provost/initiatives/curriculum/course.html

Humanities/ SS Elective

A course in Psychology, Sociology, English, History, Political Science, Philosophy, Anthropology, Economics, or a foreign language. Art history, art appreciation, music appreciation or theater appreciation are acceptable.

Free Elective

Any non-remedial course

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

Critical Course

The ♦ course is considered critical. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Expired Course

Any course without a link to its description is one that has been expired. However, this course could fulfill the degree requirement historically.

**Mechanical Engineering Technology, BS**
About the Program

A degree in mechanical engineering technology will prepare you for a broad range of positions throughout technology enterprises. You will learn how to manage people, processes, machines, and production resources. You'll combine classroom learning with hands-on laboratory experience to understand how to solve mechanical problems and gain insights into the manufacturing production and design processes.

Graduates of this program are prepared for careers in emerging fields such as energy, material, technology development, product improvement, industrial processes, and operations. Students in this program can apply to participate in five-year combined bachelor's/master's degree program in mechanical engineering technology.

The MET bachelor's degree is also offered by Purdue College of Technology statewide locations in Columbus, New Albany, and South Bend; associate degrees are offered in Kokomo and Richmond.

Mechanical Engineering Technology Website

Summary of Program Requirements

The Summary of Program Requirements for Mechanical Engineering Technology is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

| MET 10200 - Production Design And Specifications |  |
| MET 11100 - Applied Statics |  |
| MET 14300 - Materials And Processes I |  |
| MET 14400 - Materials And Processes II (MET Gateway Course) |  |
| MET 16200 - Computational Analysis Tools In MET |  |
| MET 21100 - Applied Strength Of Materials |  |
| MET 21300 - Dynamics |  |
| MET 21400 - Machine Elements |  |
| MET 22000 - Heat And Power |  |
| MET 23000 - Fluid Power |  |
| MET 24500 - Manufacturing Systems |  |

Departmental/Program Major Courses (120 credits)

Required Major Courses (44 credits)
• MET 28400 - Introduction To Industrial Controls
• MET 31300 - Applied Fluid Mechanics
• MET 32000 - Applied Thermodynamics
• MET 34600 - Advanced Materials In Manufacturing

MET Selectives - (12 credits)

• MET Elective or approved Focus Area elective - Credit Hours: 6.00
• MET Capstone Selective - Credit Hours: 3.00
• Technical Selective or approved Focus Area Selective - Credit Hours: 3.00

Other Departmental/Program Course Requirements (64 credits)

• COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core)
• COM 32000 - Small Group Communication
• ENGL 42100 - Technical Writing

• IET 45100 - Monetary Analysis For Industrial Decisions or
• TLI 33400 - Economic Analysis For Technology Systems

• MA 15800 - Precalculus- Functions And Trigonometry
• MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
• MA 16021 - Applied Calculus II And Differential Equations
• ECET 22400 - Electronic Systems
• CHM 11100 - General Chemistry
• PHYS 22000 - General Physics (satisfies Science for core)
• PHYS 22100 - General Physics (satisfies Science for core)
• STAT 30100 - Elementary Statistical Methods
• TECH 12000 - Design Thinking In Technology (satisfies Information Literacy and Science, Technology & Society for core)

• General Education Human Cultures: Humanities Selective (satisfies Human Cultures Humanities for core) - Credit Hours: 3.00
• General Education Human Cultures: Behavior/Social Sciences satisfies Human Cultures: Behavioral Sciences for core) - Credit Hours: 3.00
• Global/Professional Selective - Credit Hours: 3.00
• TECH/MGMT Selective - Credit Hours: 3.00

English Composition Selective - Choose from (3 credits)

(satisfies Written Communication for core)

• ENGL 10600 - First-Year Composition
• ENGL 10800 - Accelerated First-Year Composition

Economics/Finance Selective - choose from (3 credits)
- ECON 21000 - Principles Of Economics
- ECON 25100 - Microeconomics
- ECON 25200 - Macroeconomics
- CSR 34200 - Personal Finance
- MGMT 45500 - Legal Background For Business I

CGT Selective - choose from (2 credits)
- CGT 11000 - Technical Graphics Communications
- CGT 16300 - Graphical Communication And Spatial Analysis

Programming Selective - choose from (3 credits)
- CNIT 10500 - Introduction To C Programming
- CNIT 17500 - Visual Programming
- CS 15800 - C Programming
- CS 15900 - Programming Applications For Engineers

University Core Requirements
- Human Cultures: Behavioral/Social Sciences
- Human Cultures: Humanities
- Information Literacy
- Oral Communication
- Quantitative Reasoning
- Science #1
- Science #2
- Science, Technology & Society
- Written Communication

Program Requirements

Accredited by the Engineering Technology Accreditation Commission of ABET, http://www.abet.org

Fall 1st Year
- CGT 11000 - Technical Graphics Communications CGT Selective or
- CGT 16300 - Graphical Communication And Spatial Analysis CGT Selective
- COM 11400 - Fundamentals Of Speech Communication *
- MA 15800 - Precalculus- Functions And Trigonometry
- MET 14400 - Materials And Processes II (MET Gateway Course)
- MET 16200 - Computational Analysis Tools In MET
- TECH 12000 - Design Thinking In Technology *
15 Credits

Spring 1st Year

- MA 16010 - Applied Calculus I
- MET 11100 - Applied Statics
- MET 14300 - Materials And Processes I
- PHYS 22000 - General Physics
- Freshman Composition Selective - Credit Hours: 3.00

16 Credits

Fall 2nd Year

- ECET 22400 - Electronic Systems
- MA 16021 - Applied Calculus II And Differential Equations
- MET 21100 - Applied Strength Of Materials
- PHYS 22100 - General Physics *

14 Credits

Spring 2nd Year

- MET 21300 - Dynamics
- MET 22000 - Heat And Power
- MET 23000 - Fluid Power
- MET 28400 - Introduction To Industrial Controls
- Humanities Selective - Credit Hours: 3.00

15 Credits

Fall 3rd Year

- CHM 11100 - General Chemistry
- MET 10200 - Production Design And Specifications
- MET 21400 - Machine Elements
- MET 24500 - Manufacturing Systems
- Programming Selective - Credit Hours: 3.00
15 Credits

Spring 3rd Year

- Economics/Finance Selective - Credit Hours: 3.00
- MET 32000 - Applied Thermodynamics
- MET 34600 - Advanced Materials In Manufacturing
- STAT 30100 - Elementary Statistical Methods
- Global/Professional Selective - Credit Hours: 3.00

15 Credits

Fall 4th Year

- IET 45100 - Monetary Analysis For Industrial Decisions or
- TLI 33400 - Economic Analysis For Technology Systems
- MET Elective or approved Focus Area elective - Credit Hours: 3.00
- MET 31300 - Applied Fluid Mechanics
- TECH/MGMT Selective - Credit Hours: 3.00
- ENGL 42100 - Technical Writing

15 Credits

Spring 4th Year

- MET Capstone Selective - Credit Hours: 3.00
- MET Elective or approved Focus Area elective - Credit Hours: 3.00
- Technical Selective or approved Focus Area elective - Credit Hours: 3.00
- Behavioral Social Science Selective - Credit Hours: 3.00
- COM 32000 - Small Group Communication

15 Credits

Note

1. 120 semester credits and a 2.0 Graduation GPA are required for the Bachelor of Science degree.
2. Students must earn a "D-" or better in all courses.

3. Courses at Purdue University may only be attempted a maximum of three (3) times, including W, WF, I, IF and all graded attempts.

4. 32 credit hours of 300-level or higher courses must be completed at Purdue University.

Degree Requirements

The student is ultimately responsible for knowing and completing all degree requirements.

Degree Works is knowledge source for specific requirements and completion.

MET Supplemental Information

All prerequisites must be met.

CGT Selective

- CGT 11000 - Technical Graphics Communications
- CGT 16300 - Graphical Communication And Spatial Analysis

Technical Selective

- A 300-400 level ENGR, ECET, MFET, CS or elective IET course
- A CHM, MA, PHYS or STAT course beyond what is required
- Any MET elective course
- ANSC 23000 - Physiology Of Domestic Animals
- AT 27200 - Introduction To Composite Technology
- AT 27800 - Nondestructive Testing For Aircraft
- AT 47800 - Advanced Nondestructive Testing
- BCHM 22100 - Analytical Biochemistry
- BCM 23000 - Mechanical And Electrical Systems
- BCM 31500 - Mechanical Construction Estimating
- BCM 38000 - Concrete Construction
- BIOL 20300 - Human Anatomy And Physiology
- BIOL 22100 - Introduction To Microbiology
- CGT 22600 - Introduction To Constraint-Based Modeling

- CHM 11200 - General Chemistry or
- CHM 11600 - General Chemistry

- CHM 22300 Principles of Biochemistry
- CHM 48100 - Environmental Chemistry
- CE 35000 - Introduction To Environmental And Ecological Engineering
- CE 35500 - Engineering Environmental Sustainability
- CNIT 10500 - Introduction To C Programming
- ENTM 21800 - Introduction To Forensic Science
- FNR 30100 - Wood Products And Processing
- FNR 31100 - Wood Structure, Identification, And Properties
- FNR 41800 - Properties Of Wood Related To Manufacturing
- FNR 42500 - Secondary Wood Products Manufacturing
- FS 22200 Safety of Foods
- HSCI 31200 - Radiation Science Fundamentals
- IE 47700 Work Methods and Measurement
- IE 57700 - Human Factors In Engineering
- IT 10400 - Industrial Organization
- IT 33000 - Industrial Sales And Sales Management
- IT 34500 - Automatic Identification And Data Capture
- IT 35100 - Advanced Industrial Safety And Health Management
- IT 43400 - Global Transportation And Logistics Management
- MA 26100 - Multivariate Calculus

**MET Elective**

- MET 30200 - CAD In The Enterprise (Spring Only)
- MET 31100 - Experimental Strength Of Materials (Fall only)
- MET 31700 - Machine Diagnostics (Spring Only)
- MET 33400 - Advanced Fluid Power (Spring Only)
- MET 34900 - Stringed Instrument Design And Manufacture
- MET 38200 - Controls And Instrumentation For Automation (Spring Only)
- MET 40000 - Mechanical Design
- MET 41100 - Introduction To The Finite Element Method (Spring Only)
- MET 42100 - Air Conditioning And Refrigeration (Fall only)
- MET 42600 - Internal Combustion Engines (Fall only)
- MET 43200 - Hydraulic Motion Control Systems (Spring Only)
- MET 43600 - Pneumatic Motion Control Systems (Fall only)
- MET 44301 - Joining Processes
- MET 45100 - Manufacturing Quality Control (Fall only)
- MET 48600 - Fundamentals Of Motorsports
- MET 42400 - Green Processes And Sustainability
- MET 49000 - Special Topics In MET Multidisciplinary Capstone I (Fall only)
- MET 49000 - Special Topics In MET Multidisciplinary Capstone II (Spring Only)

**MET Capstone Selective**

- MET 33400 - Advanced Fluid Power (Spring Only)
- MET 40000 - Mechanical Design
- MET 42100 - Air Conditioning And Refrigeration (Fall only)
- MET 43200 - Hydraulic Motion Control Systems (Spring only)
- MET 43600 - Pneumatic Motion Control Systems (Fall only)
- MET 49000 - Special Topics In MET Multidisciplinary Capstone I (Fall only)
• MET 49000 - Special Topics In MET Multidisciplinary Capstone II (Spring Only)

Freshman Composition

• ENGL 10600 - First-Year Composition

Humanities Foundational Selective

see http://www.purdue.edu/provost/initiatives/curriculum/course.html

Behavioral/Social Science Foundational Selective

see http://www.purdue.edu/provost/initiatives/curriculum/course.html

Economics/Finance Selective

• CSR 34200 - Personal Finance
• ECON 21000 - Principles Of Economics
• ECON 25100 - Microeconomics
• ECON 25200 - Macroeconomics
• MGMT 45500 - Legal Background For Business I

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:
American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

Critical Course

The ♦ course is considered critical. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Expired Course

Any course without a link to its description is one that has been expired. However, this course could fulfill the degree requirement historically.

Department of Technology Leadership and Innovation
Overview

The Department of Technology Leadership & Innovation prepares students to lead the development and successful introduction of high-tech solutions in business, industry, and the classroom. Faculty members are experts in helping organizations improve, and their research reflects the latest in helpful solutions. From teaching tomorrow's teachers to understanding the nuances in each technological challenge, the department focuses on improving and shaping the future of technology and its uses.

Faculty

https://polytechnic.purdue.edu/departments/technology-leadership-innovation/directory

Contact Information

Technology Leadership & Innovation Department
Young Hall
155 S. Grant St.
West Lafayette, IN 47907
Phone: 765.494.5599
Email: tliinfo@purdue.edu

Contact an advisor

Graduate Information

For Graduate Information please see Technology Leadership and Innovation Graduate Program Information.

Baccalaureate

Engineering Technology Teacher Education, BS

About the Program

Every day, people with specialized knowledge share that knowledge with others, as teachers, trainers, consultants and more. With a national push to increase interest in science, technology, engineering, and math (STEM), you can help spread your knowledge too. By reaching students in middle school and high school, you will become a important part of the STEM education pipeline, providing inspiration to future STEM professionals as they are developing.

This program teaches the basics of most technology and engineering concepts, and it enables you to teach these concepts to middle school or high school students. Concepts include engineering design, prototyping, architecture and construction, robotics and automation. Learn to teach through service learning to help students tackle global challenges. You will also receive a Project Lead The Way pre-engineering teaching certificate. Because this is a high-demand field, all of our graduates in recent years have found teaching jobs or other employment that utilizes their leadership and technology backgrounds.
Contact Dr. Kelley, Dr. Mentzer, Dr. Daugherty or Dr. Asunda for more information about the Engineering/Technology Teacher Education degree program.

Special Features

- Learn in a program that routinely is among the best in the nation, including number one four times in eight years (as listed by the Association for Career and Technical Education)
- Integrate Project Lead The Way (PLTW) competencies into your program
- Expand your career options by becoming certified to teach PLTW courses in secondary education
- Teach and learn in the Purdue Polytechnic Institute's state-of-the-art laboratories and the DEPCO, LLC Engineering/Technology Education Laboratory, which is designed to emulate a contemporary middle-level environment
- Benefit from expert faculty who hold doctoral degrees and teaching credentials
- Utilize the Polytechnic learning environment to become a career-ready graduate

Summary of Program Requirements

The Summary of Program Requirements for Engineering Technology Teacher Education is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

Departmental/Program Major Courses (22 credits)

- IT 11100 - Prototyping In Engineering/Technology Education
- IT 27200 - Gateway To Engineering/Technology Teacher Education
- IT 27500 - Teaching The T & E Of STEM
- IT 37100 - Instructional Planning And Evaluation
- IT 37700 - Teaching Design And Innovation I
- IT 47000 - Teaching Design And Innovation II
- IT 47100 - Managing The Technology Education Laboratory
- IT 47200 - Methods Of Teaching Technology Education

Other Departmental /Program Course Requirements (86 credits)

- MA 15300 - Algebra And Trigonometry I (satisfies Quantitative Reasoning for core)
- MA 15400 - Algebra And Trigonometry II
- Lab Science Foundation Selective ¹ (satisfies Science for core) (See Supplemental Information) - Credit Hours: 3.00
- Science Foundation Selective ² (satisfies Science for core) (See Supplemental Information) - Credit Hours: 3.00
- PHYS 21800 - General Physics
• TECH 12000 - Design Thinking In Technology (satisfies Science, Technology & Society Selective and Information Literacy for core)
• TECH 32000 - Technology And The Organization
• TECH 33000 - Technology And The Global Society
• SOC 10000 - Introductory Sociology
• PSY 12000 - Elementary Psychology
• COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core)
• Written Communication Foundation Selective 3 (satisfies Written Communication for core) (See Supplemental Information) - Credit Hours: 3.00
• Advanced Communication Selective 4 (See Supplemental Information) - Credit Hours: 3.00
• Advanced Communication Selective 4 (See Supplemental Information) - Credit Hours: 3.00
• CGT 11000 - Technical Graphics Communications
• ECET 22400 - Electronic Systems
• EDCI 20500 - Exploring Teaching As A Career
• EDCI 27000 - Introduction To Educational Technology And Computing
• EDCI 28500 - Multiculturalism And Education (satisfies Human Culture Behavioral/Social Science for core)
• EDCI 30900 - Reading In Middle And Secondary Schools: Methods And Problems
• EDST 20000 - History And Philosophy Of Education (satisfies Human Cultures Humanities for core)
• EDPS 23500 - Learning And Motivation
• EDPS 26500 - The Inclusive Classroom
• EDCI 49808 Supervised Teaching - Credit Hours: 16.00

Technical Electives (12 credits)

Technical Electives 5 (See Supplemental Information)

University Core Requirements

(http://www.purdue.edu/provost/initiatives/curriculum/course.html)

• Human Cultures Humanities - EDST 20000 - History And Philosophy Of Education
• Human Cultures Behavioral/Social Science - EDCI 28500 - Multiculturalism And Education
• Information Literacy - TECH 12000 - Design Thinking In Technology
• Science #1
• Science #2
• Science, Technology & Society Selective - TECH 12000 - Design Thinking In Technology

• Written Communication - ENGL 10600 - First-Year Composition or
• Written Communication - ENGL 10800 - Accelerated First-Year Composition

• Oral Communication - COM 11400 - Fundamentals Of Speech Communication
• Quantitative Reasoning - MA 15300 - Algebra And Trigonometry I

Program Requirements
Fall 1st Year

- IT 27200 - Gateway To Engineering/Technology Teacher Education
- SOC 10000 - Introductory Sociology
- EDCI 27000 - Introduction To Educational Technology And Computing
- MA 15300 - Algebra And Trigonometry I *
- Written Communication Foundation Selective 3 - Credit Hours: 3.00 *

15 Credits

Spring 1st Year

- IT 11100 - Prototyping In Engineering/Technology Education
- CGT 11000 - Technical Graphics Communications
- MA 15400 - Algebra And Trigonometry II
- PSY 12000 - Elementary Psychology
- COM 11400 - Fundamentals Of Speech Communication *
- TECH 12000 - Design Thinking In Technology *

16 Credits

Fall 2nd Year

- EDCI 20500 - Exploring Teaching As A Career • Block 1
- EDCI 28500 - Multiculturalism And Education • * Block 1
- EDST 20000 - History And Philosophy Of Education • *
- Lab Science Foundation Selective 1 - Credit Hours: 3.00 *
- Technical Elective 5 • - Credit Hours: 3.00

15 Credits

Spring 2nd Year

- IT 27500 - Teaching The T & E Of STEM • •
- ECET 22400 - Electronic Systems
- PHYS 21800 - General Physics
- Technical Elective 5 • - Credit Hours: 3.00
13 Credits

Fall 3rd Year

- EDPS 23500 - Learning And Motivation • Block 2
- EDPS 26500 - The Inclusive Classroom • Block 2
- TECH 32000 - Technology And The Organization
- Science Foundation Selective ² - Credit Hours: 3.00
- Technical Elective ³ • - Credit Hours: 3.00

15 Credits

Spring 3rd Year

- IT 37100 - Instructional Planning And Evaluation • •
- IT 37700 - Teaching Design And Innovation I • •
- EDCI 30900 - Reading In Middle And Secondary Schools: Methods And Problems •
- TECH 33000 - Technology And The Global Society
- Advanced Communication Selective ⁴ - Credit Hours: 3.00

15 Credits

Fall 4th Year

- IT 47000 - Teaching Design And Innovation II • •
- IT 47100 - Managing The Technology Education Laboratory • • Block 3
- IT 47200 - Methods Of Teaching Technology Education • • Block 3
- Advanced Communication Selective ⁴ - Credit Hours: 3.00
- Technical Elective ⁵ • - Credit Hours: 3.00

15 Credits

Spring 4th Year

- EDCI 49808• - Credit Hours: 16.00

16 Credits
Note

*Fulfills University Core

1. 120 credits listed above are required for the ETTE Bachelor of Science degree.
2. • 3.0 Professional Education GPA required for Bachelor of Science degree, with at least a C- or higher.
3. • 2.5 Core GPA required for Bachelor of Science degree.
4. 2.0 Graduation GPA required for Bachelor of Science degree.
5. Students must fulfill all Teacher Education Requirements 6. (See Supplemental Information)
6. 32 credits of upper division courses (30000 level or higher) must be taken at Purdue University, West Lafayette.
7. ANY COURSE TAKEN AT PURDUE CAN BE ATTEMPTED NO MORE THAN THREE TIMES (INCLUSIVE OF W, WF, I AND IF).

See below for all supplemental Information

Degree Requirements

The student is ultimately responsible for knowing and completing all degree requirements.

myPurdue Plan is knowledge source for specific requirements and completion

ETTE Supplemental Information

All prerequisites must be met

Lab Science Foundation Selective (3 credits)

1 Must be a lab from the approved UCC Science list: http://www.purdue.edu/provost/initiatives/curriculum/course.html

- ASTR 26300 - Descriptive Astronomy: The Solar System
- ASTR 26400 - Descriptive Astronomy: Stars And Galaxies
- BIOL 11000 - Fundamentals Of Biology I
- BIOL 11100 - Fundamentals Of Biology II
- BIOL 12100 - Biology I: Diversity, Ecology, And Behavior
- BIOL 13100 - Biology II: Development, Structure, And Function Of Organisms
- BIOL 13500 - First year Biology Laboratory
- BIOL 14600 - Introduction To Biology
- BIOL 20300 - Human Anatomy And Physiology
- BIOL 20400 - Human Anatomy And Physiology
- BTNY 11000 - Introduction To Plant Science
- CHM 11100 - General Chemistry
- CHM 11200 - General Chemistry
- CHM 11500 - General Chemistry
- CHM 11600 - General Chemistry
- CHM 12500 - Introduction To Chemistry I
- CHM 12600 - Introduction To Chemistry II
- CHM 13600 - General Chemistry Honors
- CHM 20000 - Fundamentals Of Chemistry
• EAPS 10900 - The Dynamic Earth
• EAPS 11100 - Physical Geology
• EAPS 11200 - Earth Through Time
• EAPS 24300 - Earth Materials I
• EAPS 24400 - Earth Materials II
• HORT 10100 - Fundamentals Of Horticulture
• PHYS 17200 - Modern Mechanics
• PHYS 21800 - General Physics
• PHYS 21900 - General Physics II
• PHYS 22000 - General Physics
• PHYS 22100 - General Physics
• PHYS 24100 - Electricity And Optics
• PHYS 27200 - Electric And Magnetic Interactions

Science Foundation Selective (3 credits)

2 See approved UCC Science list at: http://www.purdue.edu/provost/initiatives/curriculum/course.html

Written Communication Foundation Selective (minimum 3 credits)

3 Written Communication Foundation Selective

• ENGL 10600 - First-Year Composition
• ENGL 10800 - Accelerated First-Year Composition

Advanced Communication Selective (6 credits)

4 Advanced Communication Selective

• COM 31400 - Advanced Presentational Speaking
• COM 31500 - Speech Communication Of Technical Information
• COM 31800 - Principles Of Persuasion
• COM 32000 - Small Group Communication
• COM 32400 - Introduction To Organizational Communication
• COM 32500 - Interviewing: Principles And Practice
• COM 41500 - Discussion Of Technical Problems
• ENGL 30400 - Advanced Composition
• ENGL 30600 - Introduction To Professional Writing
• ENGL 42000 - Business Writing
• ENGL 42100 - Technical Writing

Technical Elective (12 credits)

5 Any non-required College of Technology or Engineering (ENGR) course
Teacher Education Requirements

1. Basic Skills Competency Tests Assessment
2. Content Tests
3. **GATE A:** Admission to Teacher Education Program (TEP)
   - EDCI 20500, EDCI 28500, EDPS 23500, EDPS 26500 (Blocks 1 and 2)
4. **GATE B:** Retention
   - IT 47100, IT 47200 (Block 3)
5. **Criminal History Background Check:** A current Criminal Background Check must be on file in the Office of Field Experiences (OFE).
6. **Student Self-Disclosure Statement:** The Student Self-Disclosure Statement is submitted to OFE at the start of a Foundational course in which you complete a course-related field experience placement, EDCI 20500 or EDPS 23500 or EDPS 26500. For additional information please visit http://www.teach.purdue.edu/current_st/criminalbackgroundcheck.html.

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

Critical Course

The ♦ course is considered critical. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Expired Course

Any course without a link to its description is one that has been expired. However, this course could fulfill the degree requirement historically.

Industrial Distribution, BS

About the Program

Virtually all corporations are dependent upon their supply chains to manage the flow of goods, services and information to help customers. You will study the entire supply chain enterprise, yet have the flexibility to select courses for your chosen career path (purchasing, distribution and product management, sales management, or logistics and materials handling).

Courses will provide a systems approach where you can understand how each area of the supply chain interacts with and relies on the rest. They will help prepare you for a career that requires skills in business analysis, communication and teamwork, technological know-how, data processing, and leadership.
Special Features

- Gain a broad education in several technical and management areas
- Work with and learn from professors who are at the forefront of supply chain management
- Learn to solve problems with commonly used enterprise software systems prized by industry
- Take advantage of highly active student organization with industry support for competitions, travel to conferences, internships and international travel opportunities
- Study Abroad in Munich without delaying your graduation date
- Utilize the Polytechnic learning environment to become a career-ready graduate

ATTN: ID students

Current industrial distribution (ID) students can use the same resources listed on this page. ID plans of study remain active for those students already enrolled at Purdue prior to the summer of 2015.

Summary of Program Requirements

The Summary of Program Requirements for Industrial Distribution is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

TTLI-ID-BS/ITDB
120 Credits for graduation

Departmental/Program Major Courses (39 credits)

- IT 10400 - Industrial Organization
- IT 21400 - Introduction To Lean Manufacturing
- IT 23000 - Industrial Supply Chain Management
- IT 28100 - Industrial Safety or
- IT 35100 - Advanced Industrial Safety And Health Management
- IT 33000 - Industrial Sales And Sales Management
- IT 33200 - Purchasing, Inventory, And Warehouse Management
- IT 34200 - Introduction To Statistical Quality
- IT 34500 - Automatic Identification And Data Capture
- IT 38100 - Total Productive Maintenance
- IT 43200 - Financial Transactions In Distribution
- IT 43400 - Global Transportation And Logistics Management
- IT 43500 - Distribution Management Policy
- IT 44600 - Six Sigma Quality
Other Departmental /Program Course Requirements (75 credits)

- MA Foundation Selective ¹ (satisfies Quantitative Reasoning for core) (See Supplemental Information) - Credit Hours: 5.00
- Possible Second Mathematics Foundation Selective if needed ¹ (See Supplemental Information)
- Science Foundation Selective ² (satisfies Science for core) (See Supplemental Information) - Credit Hours: 3.00
- Science Foundation Selective ² (satisfies Science for core) (See Supplemental Information) - Credit Hours: 3.00
- PHYS 21800 - General Physics
- STAT 30100 - Elementary Statistical Methods
- TECH 12000 - Design Thinking In Technology (satisfies Science, Technology & Society Selective and Information Literacy for core)
- TECH 32000 - Technology And The Organization
- TECH 33000 - Technology And The Global Society
- ECON 21000 - Principles Of Economics (satisfies Human Culture Behavioral/Social Science for core)
- PSY 12000 - Elementary Psychology
- Humanities Foundation Selective ³ (satisfies Human Cultures Humanities for core) - Credit Hours: 3.00
- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core)
- Written Communication Foundation Selective ⁴ (satisfies Written Communication for core) (See Supplemental Information) - Credit Hours: 3.00
- Advanced Communication Selective ⁵ (See Supplemental Information) - Credit Hours: 3.00
- Advanced Communication Selective ⁵ (See Supplemental Information) - Credit Hours: 3.00
- AT 26300 - Fluid Power Systems
- CGT 11000 - Technical Graphics Communications
- ECET 22400 - Electronic Systems
- Materials and Processes Selective ⁶ (See Supplemental Information) - Credit Hours: 3.00
- MET 24500 - Manufacturing Systems
- MFET 30000 - Applications Of Automation In Manufacturing
- MGMT 20010 - Business Accounting
- MGMT 32300 - Principles Of Marketing
- OLS 25200 - Human Relations In Organizations

Free Electives (3 credits) and Technical Electives (3 credits)

Free Electives ⁷ (3 credits) and Technical Electives ⁸ (See Supplemental Information)

University Core Requirements

(See Supplemental Information)

- Human Cultures Humanities
- Human Cultures Behavioral/Social Science - ECON 21000 - Principles Of Economics
- Information Literacy - TECH 12000 - Design Thinking In Technology
- Science #1
- Science #2
- Science, Technology & Society Selective - TECH 12000 - Design Thinking In Technology
• Written Communication - ENGL 10600 - First-Year Composition or
• Written Communication - ENGL 10800 - Accelerated First-Year Composition
• Oral Communication - COM 11400 - Fundamentals Of Speech Communication
• Quantitative Reasoning - MATH

Program Requirements

Fall 1st Year

• IT 10400 - Industrial Organization
• PSY 12000 - Elementary Psychology
• TECH 12000 - Design Thinking In Technology *
• MA Foundation Selective ¹ - Credit Hours: 3.00 *
• Written Communication Foundation Selective ⁴ - Credit Hours: 3.00 *

15 Credits

Spring 1st Year

• IT 21400 - Introduction To Lean Manufacturing
• CGT 11000 - Technical Graphics Communications
• COM 11400 - Fundamentals Of Speech Communication *
• Materials & Processes Selective ⁶ - Credit Hours: 3.00
• MA Foundation Selective ¹ - Credit Hours: 3.00

15 Credits

Fall 2nd Year

• IT 23000 - Industrial Supply Chain Management
• OLS 25200 - Human Relations In Organizations
• PHYS 21800 - General Physics or
• PHYS 22000 - General Physics

• Humanities Foundation Selective ³ - Credit Hours: 3.00 *
• Science Foundation Selective ⁷ - Credit Hours: 3.00 *
16 Credits

Spring 2nd Year

- ECET 22400 - Electronic Systems
- ECON 21000 - Principles Of Economics *

- MGMT 20010 - Business Accounting or
- MGMT 20000 - Introductory Accounting

- MET 24500 - Manufacturing Systems
- Science Foundation Selective * - Credit Hours: 3.00 *

15 Credits

Fall 3rd Year

- IT 34200 - Introduction To Statistical Quality
- IT 35100 - Advanced Industrial Safety And Health Management
- AT 26300 - Fluid Power Systems
- MFET 30000 - Applications Of Automation In Manufacturing
- MGMT 32300 - Principles Of Marketing

15 Credits

Spring 3rd Year

- IT 33000 - Industrial Sales And Sales Management
- IT 33200 - Purchasing, Inventory, And Warehouse Management
- IT 34500 - Automatic Identification And Data Capture
- STAT 30100 - Elementary Statistical Methods
- TECH 32000 - Technology And The Organization

15 Credits

Fall 4th Year

- IT 38100 - Total Productive Maintenance
• IT 43200 - Financial Transactions In Distribution
• IT 43400 - Global Transportation And Logistics Management
• TECH 33000 - Technology And The Global Society
• Advanced Communication Selective 5 - Credit Hours: 3.00

15 Credits

Spring 4th Year

• IT 43500 - Distribution Management Policy
• IT 44600 - Six Sigma Quality
• Advanced Communication Selective 5 - Credit Hours: 3.00
• Free Elective 7 - Credit Hours: 3.00
• Technical Elective 8 - Credit Hours: 3.00

15 Credits

Note

*Fulfills University Core

1. 120 credits listed above are required for the ID Bachelor of Science degree.
2. 2.0 Graduation GPA required for Bachelor of Science degree.
3. 32 credits of upper division courses (30000 level or higher) must be taken at Purdue University, West Lafayette.
4. ANY COURSE TAKEN AT PURDUE CAN BE ATTEMPTED NO MORE THAN THREE TIMES (INCLUSIVE OF W, WF, I AND IF).

See below for all supplemental Information

Degree Requirements

The student is ultimately responsible for knowing and completing all degree requirements.

myPurdue Plan is knowledge source for specific requirements and completion

ID Supplemental Information

All prerequisites must be met

MA Foundation Selective (minimum 5 credits)

1 See approved UCC Quantitative Reasoning list at: http://www.purdue.edu/provost/initiatives/curriculum/course.html

• MA 15300 - Algebra And Trigonometry I
• MA 15400 - Algebra And Trigonometry II
- MA 15800 - Precalculus - Functions And Trigonometry  
  Free Elective - Credit Hours: 2.00

- MA 15910 - Introduction To Calculus  
  Free Elective - Credit Hours: 2.00

- MA 16010 - Applied Calculus I  
  Free Elective - Credit Hours: 2.00

- MA 16100 - Plane Analytic Geometry And Calculus I  
  MA 16500 - Analytic Geometry And Calculus I

- MA 22100 - Calculus For Technology I  
  Free Elective - Credit Hours: 2.00

- MA 22300 - Introductory Analysis I  
  Free Elective - Credit Hours: 2.00

Science Foundation Selective (6 credits)

2 See approved UCC Science list at: http://www.purdue.edu/provost/initiatives/curriculum/course.html

Humanities Foundational Selective (3 credits)

3 See approved UCC Humanities list at: http://www.purdue.edu/provost/initiatives/curriculum/course.html

Written Communication Foundation Selective (minimum 3 credits)

4 Written Communication Foundation Selective

- ENGL 10600 - First-Year Composition
- ENGL 10800 - Accelerated First-Year Composition

Advanced Communication Selective (6 credits)

5 Advanced Communication Selective

- COM 31400 - Advanced Presentational Speaking
- COM 31500 - Speech Communication Of Technical Information
- COM 31800 - Principles Of Persuasion
- COM 32000 - Small Group Communication
- COM 32400 - Introduction To Organizational Communication
- COM 32500 - Interviewing: Principles And Practice
- COM 41500 - Discussion Of Technical Problems
- ENGL 30400 - Advanced Composition
• ENGL 30600 - Introduction To Professional Writing
• ENGL 42000 - Business Writing
• ENGL 42100 - Technical Writing

Materials and Processes Selective (3 credits)

6 Materials and Processes Selective
• MET 14300 - Materials And Processes I
• MET 14400 - Materials And Processes II

Free Elective (3 credits)

7 Any non-remedial course offered for credit at the University not already required/being used on the plan of study

Technical Elective (3 credits)

8 Any non-required College of Technology or Engineering (ENGR) course

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

Critical Course

The ♦ course is considered critical. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Industrial Technology, BS

About the Program

You will focus on both technical and human-centered approaches to technology management. You will learn how to manage and coordinate engineering operations and lead projects from design to implementation. Coursework is enhanced with an overview of business and economics.

When you major in industrial engineering technology at Purdue University, you will gain skills to prepare you for a wide variety of options: manufacturing plants, government agencies, hospitals, healthcare organizations, retail companies, and more.

Special Features
• Broaden your scope of expertise with classes from several Technology departments
• Take advantage of real-world and global experiences with internships and international opportunities
• Benefit from faculty experience in industrial careers
• Study Abroad in Munich without delaying your graduation date.
• Utilize the Polytechnic learning environment to become a career-ready graduate

ATTN: IT students

Current industrial technology (IT) students can use the same resources listed on this page. IT plans of study remain active for those students already enrolled at Purdue prior to the summer of 2015

Summary of Program Requirements

The Summary of Program Requirements for Industrial Technology is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

TTLI-IT-BS/IT
120 Credits for graduation

Departmental/Program Major Courses (36 credits)

• IT 10400 - Industrial Organization
• IT 21400 - Introduction To Lean Manufacturing
• IT 23000 - Industrial Supply Chain Management
• IT 28100 - Industrial Safety or
  • IT 35100 - Advanced Industrial Safety And Health Management
• IT 34200 - Introduction To Statistical Quality
• IT 34500 - Automatic Identification And Data Capture
• IT 38100 - Total Productive Maintenance
• IT 38500 - Industrial Ergonomics
• IT 44200 - Production Planning
• IT 44600 - Six Sigma Quality
• IT 45000 - Production Cost Analysis
• IT 48300 - Facility Design For Lean Manufacturing

Other Departmental /Program Course Requirements (69 credits)

• MA Foundation Selective ¹ (satisfies Quantitative Reasoning for core) (See Supplemental Information) - Credit Hours: 5.00
• Possible Second Mathematics Foundation Selective if needed ¹ (See Supplemental Information)
• Science Foundation Selective ² (satisfies Science for core) (See Supplemental Information) - Credit Hours: 3.00
• Science Foundation Selective ² (satisfies Science for core) (See Supplemental Information) - Credit Hours: 3.00
• PHYS 21800 - General Physics
• STAT 30100 - Elementary Statistical Methods
• TECH 12000 - Design Thinking In Technology (satisfies Science, Technology & Society Selective and Information Literacy for core)
• TECH 32000 - Technology And The Organization
• TECH 33000 - Technology And The Global Society
• ECON 21000 - Principles Of Economics (satisfies Human Culture Behavioral/Social Science for core)
• PSY 12000 - Elementary Psychology
• Humanities Foundation Selective ³ (satisfies Human Cultures Humanities for core) (See Supplemental Information) - Credit Hours: 3.00
• COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core)
• Written Communication Foundation Selective ⁴ (satisfies Written Communication for core) (See Supplemental Information) - Credit Hours: 3.00
• Advanced Communication Selective ⁵ (See Supplemental Information) - Credit Hours: 3.00
• Advanced Communication Selective ⁵ (See Supplemental Information) - Credit Hours: 3.00
• AT 26300 - Fluid Power Systems
• CGT 11000 - Technical Graphics Communications
• CNIT 17500 - Visual Programming
• ECET 22400 - Electronic Systems
• Materials and Processes Selective ⁶ (See Supplemental Information) - Credit Hours: 3.00
• MET 24500 - Manufacturing Systems
• MFET 30000 - Applications Of Automation In Manufacturing

Free Electives (12 credits) and Technical Electives (3 credits)

Free Electives ⁷ (12 credits) and Technical Electives ⁸ (See Supplemental Information)

University Core Requirements

(http://www.purdue.edu/provost/initiatives.curriculum/course.html)

• Human Cultures Humanities
• Human Cultures Behavioral/Social Science - ECON 21000 - Principles Of Economics
• Information Literacy - TECH 12000 - Design Thinking In Technology
• Science #1
• Science #2
• Science, Technology & Society Selective - TECH 12000 - Design Thinking In Technology
• Written Communication - ENGL 10600 - First-Year Composition or
• Written Communication - ENGL 10800 - Accelerated First-Year Composition
• Oral Communication - COM 11400 - Fundamentals Of Speech Communication
• Quantitative Reasoning - MATH
Program Requirements

Fall 1st Year

- IT 10400 - Industrial Organization
- PSY 12000 - Elementary Psychology
- TECH 12000 - Design Thinking In Technology *
- MA Foundation Selective 1 - Credit Hours: 3.00 *
- Written Communication Foundation Selective 4 - Credit Hours: 3.00 *

15 Credits

Spring 1st Year

- IT 21400 - Introduction To Lean Manufacturing
- CGT 11000 - Technical Graphics Communications
- COM 11400 - Fundamentals Of Speech Communication *
- Materials & Processes Selective 6 - Credit Hours: 3.00
- Math Foundation Selective 1 - Credit Hours: 3.00

15 Credits

Fall 2nd Year

- IT 23000 - Industrial Supply Chain Management
- AT 26300 - Fluid Power Systems
- CNIT 17500 - Visual Programming
- Humanities Foundation Selective 3 - Credit Hours: 3.00 *
- Science Foundation Selective 2 - Credit Hours: 3.00 *

15 Credits

Spring 2nd Year

- ECET 22400 - Electronic Systems
- ECON 21000 - Principles Of Economics *
- MET 24500 - Manufacturing Systems
- PHYS 21800 - General Physics or
- PHYS 22000 - General Physics

- Free Elective 7 - Credit Hours: 3.00

16 Credits

Fall 3rd Year

- IT 34200 - Introduction To Statistical Quality
- IT 35100 - Advanced Industrial Safety And Health Management
- MFET 30000 - Applications Of Automation In Manufacturing
- TECH 32000 - Technology And The Organization
- Advanced Communication Selective 5 - Credit Hours: 3.00

15 Credits

Spring 3rd Year

- IT 34500 - Automatic Identification And Data Capture
- IT 38500 - Industrial Ergonomics
- STAT 30100 - Elementary Statistical Methods
- TECH 33000 - Technology And The Global Society
- Science Foundation Selective 5 - Credit Hours: 3.00 *

15 Credits

Fall 4th Year

- IT 38100 - Total Productive Maintenance
- IT 44200 - Production Planning
- IT 44600 - Six Sigma Quality
- IT 45000 - Production Cost Analysis
- Advanced Communication Selective 5 - Credit Hours: 3.00

15 Credits

Spring 4th Year
• IT 48300 - Facility Design For Lean Manufacturing
• Free Elective 7 - Credit Hours: 3.00
• Free Elective 7 - Credit Hours: 3.00
• Free Elective 7 - Credit Hours: 3.00
• Technical Elective 8 - Credit Hours: 3.00

15 Credits

Note

*Fulfills University Core

1) 120 credits listed above are required for the IT Bachelor of Science degree.

2) 2.0 Graduation GPA required for Bachelor of Science degree.

3) 32 credits of upper division courses (30000 level or higher) must be taken at Purdue University, West Lafayette.

4) ANY COURSE TAKEN AT PURDUE CAN BE ATTEMPTED NO MORE THAN THREE TIMES (INCLUSIVE OF W, WF, I AND IF).

See below for all supplemental Information

Degree Requirements

The student is ultimately responsible for knowing and completing all degree requirements.

Degree Works is knowledge source for specific requirements and completion

IT Supplemental Information

All prerequisites must be met

MA Foundation Selective (minimum 5 credits)

1 See approved UCC Quantitative Reasoning list at: http://www.purdue.edu/provost/initiatives/curriculum/course.html

• MA 15300 - Algebra And Trigonometry I and
• MA 15400 - Algebra And Trigonometry II

• MA 15800 - Precalculus - Functions And Trigonometry and
• Free Elective - Credit Hours: 2.00

• MA 15910 - Introduction To Calculus and
• Free Elective - Credit Hours: 2.00

• MA 16010 - Applied Calculus I and
- Free Elective - Credit Hours: 2.00
- MA 16100 - Plane Analytic Geometry And Calculus I
- MA 16500 - Analytic Geometry And Calculus I
- MA 22100 - Calculus For Technology I and
  Free Elective - Credit Hours: 2.00
- MA 22300 - Introductory Analysis I and
  Free Elective - Credit Hours: 2.00

**Science Foundation Selective (6 credits)**

2 See approved UCC Science list at: [http://www.purdue.edu/provost/initiatives/curriculum/course.html](http://www.purdue.edu/provost/initiatives/curriculum/course.html)

**Humanities Foundational Selective (3 credits)**

3 See approved UCC Humanities list at: [http://www.purdue.edu/provost/initiatives/curriculum/course.html](http://www.purdue.edu/provost/initiatives/curriculum/course.html)

**Written Communication Foundation Selective (minimum 3 credits)**

4 Written Communication Foundation Selective
- ENGL 10600 - First-Year Composition
- ENGL 10800 - Accelerated First-Year Composition

**Advanced Communication Selective (6 credits)**

5 Advanced Communication Selective
- COM 31400 - Advanced Presentational Speaking
- COM 31500 - Speech Communication Of Technical Information
- COM 31800 - Principles Of Persuasion
- COM 32000 - Small Group Communication
- COM 32400 - Introduction To Organizational Communication
- COM 32500 - Interviewing: Principles And Practice
- COM 41500 - Discussion Of Technical Problems
- ENGL 30400 - Advanced Composition
- ENGL 30600 - Introduction To Professional Writing
- ENGL 42000 - Business Writing
- ENGL 42100 - Technical Writing

**Materials and Processes Selective (3 credits)**

6 Materials and Processes Selective
Free Elective (12 credits)

7 Any non-remedial course offered for credit at the University not already required/being used on the plan of study

Technical Elective (3 credits)

8 Any non-required College of Technology or Engineering (ENGR) course

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

Critical Course

The ♦ course is considered critical. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Industrial Technology/Industrial Distribution, BS

About the Program

Highly valued by employers, the dual degree in industrial technology and industrial distribution provides the strengths of both fields in one degree. Because most manufacturers work with wholesale distribution partners, it is beneficial for them to understand the concept of logistics, supply chains and distribution. Likewise, distribution professionals can enhance their credibility with manufacturers by demonstrating technical knowledge about how products are designed and created.

Special features

- Enjoy some of the highest salaries offered in this field by demonstrating knowledge of both areas
- Benefit from faculty experience in industrial careers

Summary of Program Requirements

The Summary of Program Requirements for Industrial Technology-Industrial Distribution is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.
Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

TTL-ITID-BS/ITID
120 Credits for graduation

Departmental/Program Major Courses (48 credits)

- IT 10400 - Industrial Organization
- IT 21400 - Introduction To Lean Manufacturing
- IT 23000 - Industrial Supply Chain Management
- IT 28100 - Industrial Safety or
- IT 35100 - Advanced Industrial Safety And Health Management
- IT 33000 - Industrial Sales And Sales Management
- IT 33200 - Purchasing, Inventory, And Warehouse Management
- IT 34200 - Introduction To Statistical Quality
- IT 34500 - Automatic Identification And Data Capture
- IT 38100 - Total Productive Maintenance
- IT 38500 - Industrial Ergonomics
- IT 43200 - Financial Transactions In Distribution
- IT 43400 - Global Transportation And Logistics Management
- IT 43500 - Distribution Management Policy
- IT 44200 - Production Planning
- IT 44600 - Six Sigma Quality
- IT 48300 - Facility Design For Lean Manufacturing

Other Departmental /Program Course Requirements (72 credits)

- MA Foundation Selective \(^1\) (satisfies Quantitative Reasoning for core) (See Supplemental Information) - Credit Hours: 5.00
- Possible Second Mathematics Foundation Selective if needed \(^1\) (See Supplemental Information)
- Science Foundation Selective \(^2\) (satisfies Science for core) (See Supplemental Information) - Credit Hours: 3.00
- Science Foundation Selective \(^2\) (satisfies Science for core) (See Supplemental Information) - Credit Hours: 3.00
- PHYS 21800 - General Physics
- STAT 30100 - Elementary Statistical Methods
- TECH 12000 - Design Thinking In Technology (satisfies Science, Technology & Society Selective and Information Literacy for core)
- TECH 32000 - Technology And The Organization
- TECH 33000 - Technology And The Global Society
- ECON 21000 - Principles Of Economics (satisfies Human Culture Behavioral/Social Science for core)
- PSY 12000 - Elementary Psychology
- Humanities Foundation Selective \(^3\) (satisfies Human Cultures Humanities for core) (See Supplemental Information) - Credit Hours: 3.00
- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core)
• Written Communication Foundation Selective ⁴ (satisfies Written Communication for core) (See Supplemental Information) - Credit Hours: 3.00
• Advanced Communication Selective ⁵ (See Supplemental Information) - Credit Hours: 3.00
• Advanced Communication Selective ⁵ (See Supplemental Information) - Credit Hours: 3.00
• AT 26300 - Fluid Power Systems
• CGT 11000 - Technical Graphics Communications
• ECET 22400 - Electronic Systems
• Materials and Processes Selective ⁶ (See Supplemental Information) - Credit Hours: 3.00
• MET 24500 - Manufacturing Systems
• MFET 30000 - Applications Of Automation In Manufacturing
• MGMT 20010 - Business Accounting
• MGMT 32300 - Principles Of Marketing

University Core Requirements
(http://www.purdue.edu/provost/initiatives/curriculum/course.html)

• Human Cultures Humanities
• Human Cultures Behavioral/Social Science - ECON 21000 - Principles Of Economics
• Information Literacy - TECH 12000 - Design Thinking In Technology
• Science #1
• Science #2
• Science, Technology & Society Selective - TECH 12000 - Design Thinking In Technology

• Written Communication - ENGL 10600 - First-Year Composition or
• Written Communication - ENGL 10800 - Accelerated First-Year Composition

• Oral Communication - COM 11400 - Fundamentals Of Speech Communication
• Quantitative Reasoning - MATH

Program Requirements

Fall 1st Year

• IT 10400 - Industrial Organization
• PSY 12000 - Elementary Psychology
• TECH 12000 - Design Thinking In Technology *
• MA Foundation Selective ¹ - Credit Hours: 3.00 *
• Written Communication Foundation Selective ⁴ - Credit Hours: 3.00 *

15 Credits
Spring 1st Year

- IT 21400 - Introduction To Lean Manufacturing
- CGT 11000 - Technical Graphics Communications
- COM 11400 - Fundamentals Of Speech Communication *
- Materials & Processes Selective 6 - Credit Hours: 3.00
- MA Foundation Selective 1 - Credit Hours: 3.00

15 Credits

Fall 2nd Year

- IT 23000 - Industrial Supply Chain Management
- AT 26300 - Fluid Power Systems
- MGMT 20010 - Business Accounting or
- MGMT 20000 - Introductory Accounting
- Humanities Foundation Selective 3 - Credit Hours: 3.00 *
- Science Foundation Selective 2 - Credit Hours: 3.00 *

15 Credits

Spring 2nd Year

- ECET 22400 - Electronic Systems
- ECON 21000 - Principles Of Economics *
- MET 24500 - Manufacturing Systems
- PHYS 21800 - General Physics or
- PHYS 22000 - General Physics
- Advanced Communication Selective 5 - Credit Hours: 3.00

16 Credits

Fall 3rd Year

- IT 33000 - Industrial Sales And Sales Management
- IT 34200 - Introduction To Statistical Quality
• IT 35100 - Advanced Industrial Safety And Health Management
• MFET 30000 - Applications Of Automation In Manufacturing
• TECH 32000 - Technology And The Organization

15 Credits

Spring 3rd Year

• IT 33200 - Purchasing, Inventory, And Warehouse Management
• IT 34500 - Automatic Identification And Data Capture
• IT 38500 - Industrial Ergonomics
• STAT 30100 - Elementary Statistical Methods
• TECH 33000 - Technology And The Global Society

15 Credits

Fall 4th Year

• IT 38100 - Total Productive Maintenance
• IT 43400 - Global Transportation And Logistics Management
• IT 44200 - Production Planning
• MGMT 32300 - Principles Of Marketing
• Science Foundation Selective ² - Credit Hours: 3.00 *

15 Credits

Spring 4th Year

• IT 43200 - Financial Transactions In Distribution
• IT 43500 - Distribution Management Policy
• IT 44600 - Six Sigma Quality
• IT 48300 - Facility Design For Lean Manufacturing
• Advanced Communication Selective ³ - Credit Hours: 3.00

15 Credits

Note
1) 120 credits listed above are required for the ITID Bachelor of Science degree.

2) 2.0 Graduation GPA required for Bachelor of Science degree.

3) 32 credits of upper division courses (30000 level or higher) must be taken at Purdue University, West Lafayette.

4) ANY COURSE TAKEN AT PURDUE CAN BE ATTEMPTED NO MORE THAN THREE TIMES (INCLUSIVE OF W, WF, I AND IF).

See below for all supplemental Information

Degree Requirements

The student is ultimately responsible for knowing and completing all degree requirements.

myPurdue Plan is knowledge source for specific requirements and completion

ITID Supplemental Information

All prerequisites must be met

MA Foundation Selective (minimum 5 credits)

1 See approved UCC Quantitative Reasoning list at: http://www.purdue.edu/provost/initiatives/curriculum/course.html

- MA 15300 - Algebra And Trigonometry I and
- MA 15400 - Algebra And Trigonometry II

- MA 15800 - Precalculus - Functions And Trigonometry and
- Free Elective - Credit Hours: 2.00

- MA 15910 - Introduction To Calculus and
- Free Elective - Credit Hours: 2.00

- MA 16010 - Applied Calculus I and
- Free Elective - Credit Hours: 2.00

- MA 16100 - Plane Analytic Geometry And Calculus I
- MA 16500 - Analytic Geometry And Calculus I

- MA 22100 - Calculus For Technology I and
- Free Elective - Credit Hours: 2.00

- MA 22300 - Introductory Analysis I and
- Free Elective - Credit Hours: 2.00

Science Foundation Selective (6 credits)
Humanities Foundational Selective (3 credits)

Written Communication Foundation Selective (minimum 3 credits)

Advanced Communication Selective (6 credits)

Materials and Processes Selective (3 credits)

Critical Course

Foreign Language Courses
American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

Organizational Leadership, BS

About the Program

With a major in organizational leadership, you will focus on leadership and innovation to develop skills as a leader for national and global technology enterprises.

The broad curricula will help you learn how to lead in a variety of scenarios, from innovative technology organizations to global teams and organizational change. You will also take courses to understand how policies and law affect technology innovation and influence global technology and organizational leadership.

Organizational Leadership Website

Summary of Program Requirements

The Summary of Program Requirements for Organizational Leadership is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

TTLI-OLS-BS/OLSV 201410 & 201510
120 Credits for graduation

Departmental/Program Major Courses (33 credits)

"C" or higher required in all OLS courses

- OLS 25200 - Human Relations In Organizations
- OLS 27400 - Applied Leadership
- OLS 28400 - Leadership Principles
- OLS 34600 - Critical Thinking And Ethics
- OLS 37600 - Human Resource Issues
- OLS 38600 - Leadership For Organizational Change And Innovation
- OLS 38800 - Leadership Through Teams
- OLS 45000 - Project Management For Organizational And Human Resource Development
- OLS 47700 - Conflict Management
- OLS 48400 - Leadership Strategies For Quality And Productivity
- OLS Experiential Requirement 9 - Credit Hours: 3.00

Other Departmental /Program Course Requirements (68 credits)
• Mathematics Foundation Selective ¹ (satisfies Quantitative Reasoning for core) (See Supplemental Information) - Credit Hours: 5.00
• Possible Second Mathematics Foundation Selective if needed ¹ (See Supplemental Information)
• Lab Science Foundation Selective ² (satisfies Science for core) (See Supplemental Information) - Credit Hours: 3.00
• Science Foundation Selective ³ (satisfies Science for core) (See Supplemental Information) - Credit Hours: 3.00
• Professional Specialization Selective ⁴ (See Supplemental Information) - Credit Hours: 3.00
• Professional Specialization Selective ⁴ (See Supplemental Information) - Credit Hours: 3.00
• Professional Specialization Selective ⁴ (See Supplemental Information) - Credit Hours: 3.00
• TECH 12000 - Design Thinking In Technology (satisfies Science, Technology & Society and Information Literacy for core)
• TECH 32000 - Technology And The Organization
• TECH 33000 - Technology And The Global Society
• Written Communication Foundation Selective ⁵ (satisfies Written Communication for core) (See Supplemental Information) - Credit Hours: 3.00
• English Selective ⁶ (See Supplemental Information) - Credit Hours: 3.00

• ENGL 42000 - Business Writing or
• ENGL 42100 - Technical Writing

• COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core)
• Communication Selective ⁷ (See Supplemental Information) - Credit Hours: 3.00
• CNIT 13600 - Personal Computing Technology And Applications
• IT 23000 - Industrial Supply Chain Management
• MGMT 20010 - Business Accounting

• IT 34200 - Introduction To Statistical Quality or
• STAT 30100 - Elementary Statistical Methods

• IT 45000 - Production Cost Analysis or
• MGMT 20100 - Management Accounting I

• ECON 21000 - Principles Of Economics or
• AGEC 21700 - Economics

• PSY 12000 - Elementary Psychology (satisfies Human Cultures Behavioral/Social Science for core) or
• SOC 10000 - Introductory Sociology (satisfies Human Cultures Behavioral/Social Science for core)

• Humanities Foundation Selective ⁸ (satisfies Human Cultures Humanities for core) (See Supplemental Information) - Credit Hours: 3.00

Free (4 cr) and Technical Electives (15 cr)

Free ¹¹ (4 cr) and Technical Electives ¹⁰ (15 cr) (See Supplemental Information)

University Core Requirements

(http://www.purdue.edu/provost/initiatives/curriculum/course.html)
• Human Cultures Humanities
• Human Cultures Behavioral/Social Science - PSY 12000 - Elementary Psychology or
  Human Cultures Behavioral/Social Science - SOC 10000 - Introductory Sociology
• Information Literacy - TECH 12000 - Design Thinking In Technology
• Science #1
• Science #2
• Science, Technology & Society Selective - TECH 12000 - Design Thinking In Technology
• Written Communication - ENGL 10600 - First-Year Composition or
  Written Communication - ENGL 10800 - Accelerated First-Year Composition
• Oral Communication - COM 11400 - Fundamentals Of Speech Communication
• Quantitative Reasoning

Program Requirements

Fall 1st Year

• OLS 27400 - Applied Leadership
• TECH 12000 - Design Thinking In Technology *
• Humanities Foundation Selective 8 - Credit Hours: 3.00 *
• MA Foundation Selective 1 - Credit Hours: 3.00 - 5.00 *
• Written Communication Foundation Selective 5 - Credit Hours: 3.00 *

15-17 Credits

Spring 1st Year

• CNIT 13600 - Personal Computing Technology And Applications
• OLS 25200 - Human Relations In Organizations
• OLS 28400 - Leadership Principles
• COM 11400 - Fundamentals Of Speech Communication
• Possible second MA Foundation Selective 1 or Science Foundation Selective 3 - Credit Hours: 3.00 *

15 Credits

Fall 2nd Year

• OLS 38600 - Leadership For Organizational Change And Innovation
• OLS 38800 - Leadership Through Teams
• ECON 21000 - Principles Of Economics or
• AGEC 21700 - Economics
• PSY 12000 - Elementary Psychology * or
• SOC 10000 - Introductory Sociology *
• Lab Science Foundation Selective 2 - Credit Hours: 3.00 *

15 Credits

Spring 2nd Year

• OLS 34600 - Critical Thinking And Ethics
• OLS 37600 - Human Resource Issues
• IT 23000 - Industrial Supply Chain Management
• IT 34200 - Introduction To Statistical Quality or
• STAT 30100 - Elementary Statistical Methods
• Technical Elective 10 or Science Foundation Selective 3 * if both MA 15300/15400 were taken - Credit Hours: 3.00

15 Credits

Fall 3rd Year

• OLS 47700 - Conflict Management
• MGMT 20010 - Business Accounting or
• MGMT 20000 - Introductory Accounting
• TECH 32000 - Technology And The Organization
• OLS Experiential Requirement 9 - Credit Hours: 3.00
• Professional Specialization Selective 4 - Credit Hours: 3.00

15 Credits

Spring 3rd Year

• OLS 48400 - Leadership Strategies For Quality And Productivity
• IT 45000 - Production Cost Analysis or
  MGMT 20100 - Management Accounting I

• TECH 33000 - Technology And The Global Society
• Communication Selective 7 - Credit Hours: 3.00
• Free Elective 11 - Credit Hours: 1.00
• Technical Elective 10 if both MA 15300/15400 were taken - Credit Hours: 3.00

13-16 Credits

Fall 4th Year

• OLS 45000 - Project Management For Organizational And Human Resource Development

• ENGL 42000 - Business Writing or
  ENGL 42100 - Technical Writing

• Professional Specialization Selective 4 - Credit Hours: 3.00
• Technical Elective 10 - Credit Hours: 3.00
• Technical Elective 10 - Credit Hours: 3.00

15 Credits

Spring 4th Year

• English Selective 6 - Credit Hours: 3.00
• Professional Specialization Selective 4 - Credit Hours: 3.00
• Free Elective 11 - Credit Hours: 3.00
• Technical Elective 10 - Credit Hours: 3.00
• Technical Elective 10 - Credit Hours: 3.00

15 Credits

Note

*Fulfills University Core

1) Students must earn a C or higher in all OLS courses.

2) 120 credits listed above are required for the OLS Bachelor of Science degree.

3) 2.0 Graduation GPA required for Bachelor of Science degree.
4) 32 credits of upper division courses (30000 level or higher) must be taken at Purdue University, West Lafayette.

5) ANY COURSE TAKEN AT PURDUE CAN BE ATTEMPTED NO MORE THAN THREE TIMES (INCLUSIVE OF W, WF, I AND IF).

See below for all supplemental Information

Degree Requirements

The student is ultimately responsible for knowing and completing all degree requirements.

myPurdue Plan is knowledge source for specific requirements and completion

OLS Supplemental Information

All prerequisites must be met

MA Foundation Selective (minimum 5 credits)

1 See approved UCC Quantitative Reasoning list at: http://www.purdue.edu/provost/initiatives/curriculum/course.html

- MA 15300 - Algebra And Trigonometry I and
- MA 15400 - Algebra And Trigonometry II

- MA 15800 - Precalculus- Functions And Trigonometry and
- Free Elective - Credit Hours: 2.00

- MA 15910 - Introduction To Calculus and
- Free Elective - Credit Hours: 2.00

- MA 16010 - Applied Calculus I and
- Free Elective - Credit Hours: 2.00

- MA 16100 - Plane Analytic Geometry And Calculus I
- MA 16500 - Analytic Geometry And Calculus I

- MA 22100 - Calculus For Technology I and
- Free Elective - Credit Hours: 2.00

- MA 22300 - Introductory Analysis I and
- Free Elective - Credit Hours: 2.00

Lab Science Foundation Selective (3 credits)

2 Must be a lab from the approved UCC Science list: http://www.purdue.edu/provost/initiatives/curriculum/course.html

- ASTR 26300 - Descriptive Astronomy: The Solar System
- ASTR 26400 - Descriptive Astronomy: Stars And Galaxies
- BIOL 11000 - Fundamentals Of Biology I
- BIOL 11100 - Fundamentals Of Biology II
- BIOL 12100 - Biology I: Diversity, Ecology, And Behavior
- BIOL 13100 - Biology II: Development, Structure, And Function Of Organisms
- BIOL 13500 - First year Biology Laboratory
- BIOL 14600 - Introduction To Biology
- BIOL 20300 - Human Anatomy And Physiology
- BIOL 20400 - Human Anatomy And Physiology
- BTNY 11000 - Introduction To Plant Science
- CHM 11100 - General Chemistry
- CHM 11200 - General Chemistry
- CHM 11500 - General Chemistry
- CHM 11600 - General Chemistry
- CHM 12500 - Introduction To Chemistry I
- CHM 12600 - Introduction To Chemistry II
- CHM 13600 - General Chemistry Honors
- CHM 20000 - Fundamentals Of Chemistry
- EAPS 10900 - The Dynamic Earth
- EAPS 11100 - Physical Geology
- EAPS 11200 - Earth Through Time
- EAPS 24300 - Earth Materials I
- EAPS 24400 - Earth Materials II
- HORT 10100 - Fundamentals Of Horticulture
- PHYS 17200 - Modern Mechanics
- PHYS 21800 - General Physics
- PHYS 21900 - General Physics II
- PHYS 22000 - General Physics
- PHYS 22100 - General Physics
- PHYS 24100 - Electricity And Optics
- PHYS 27200 - Electric And Magnetic Interactions

Science Foundation Selective (3 credits)

3 See approved UCC Science list at: http://www.purdue.edu/provost/initiatives/curriculum/course.html

Professional Specialization Selective (9 credits)

4 *Any University recognized minor can fulfill this requirement.

Logistics/Supply Chain

- IT 33000 - Industrial Sales And Sales Management
- IT 33200 - Purchasing, Inventory, And Warehouse Management
- IT 43200 - Financial Transactions In Distribution
- IT 43400 - Global Transportation And Logistics Management
- IT 43500 - Distribution Management Policy
Advanced Manufacturing

- OLS 37500 - Training Methods
- IT 21400 - Introduction To Lean Manufacturing
- IT 44600 - Six Sigma Quality
- IT 48300 - Facility Design For Lean Manufacturing
- MET 14300 - Materials And Processes I
- MET 24500 - Manufacturing Systems
- MFET 24600 - High Performance Manufacturing
- MFET 40000 - Computer Integrated Manufacturing

Human Capital

- OLS 37500 - Training Methods
- OLS 47600 - Compensation Planning And Management
- MGMT 44301 - Management Of Human Resources or
- OBHR 30000 - Management Of Human Resources
- PSY 27200 - Introduction To Industrial-Organizational Psychology
- PSY 47500 - Work Motivation And Job Satisfaction
- SOC 31600 - Industry And Society
- SOC 52000 - Work In Contemporary America

Sales and Marketing

- AGEC 33100 - Principles Of Selling In Agricultural Business
- COM 25300 - Introduction To Public Relations
- COM 25600 - Introduction To Advertising
- COM 31800 - Principles Of Persuasion (can fulfill either Specialization Selc or Com Selective not both)
- CSR 28200 - Customer Relations Management
- MGMT 32300 - Principles Of Marketing

Entrepreneurship

- ENTR 20000 - Introduction To Entrepreneurship And Innovation
- ENTR 31000 - Marketing And Management For New Ventures
- ENTR Certificate Capstone course

International Leadership

- AGEC 34000 - International Economic Development
- AGEC 43500 - Leadership In A Changing World
• COM 30300 - Intercultural Communication

• MFET 49900 - Manufacturing Engineering Technology Independent Project or
• OLS 49900 - Special Topics In Organizational Leadership And Supervision

• POL 23500 - International Relations Among Rich And Poor Nations
• Any spoken foreign language 20100 or higher, max 6 cr
• Any Purdue-approved study abroad credit, 1-6 cr.

Written Communication Foundation Selective (minimum 3 credits)

5 Written Communication Foundation Selective

• ENGL 10600 - First-Year Composition
• ENGL 10800 - Accelerated First-Year Composition

English Selective (3 credits)

6 Any ENGL course that is not being used for the Written Communication Foundation Selective or ENGL 42000/42100

Communication Selective (3 credits)

7 Communication Selective

• COM 31400 - Advanced Presentational Speaking
• COM 31800 - Principles Of Persuasion
• COM 32500 - Interviewing: Principles And Practice

Humanities Foundational Selective (3 credits)

8 See approved Humanities list at: https://www.purdue.edu/provost/initiatives/curriculum/course.html

OLS Experiential Requirement (3 credits)

9 OLS Experiential Requirement

• OLS 49100 - Internship Program
• OLS 46700 - Service Learning
• OLS 49000 Individual Research Problems

Technical Elective (15 credits)

10 Technical Elective

• AGEC 33100 - Principles Of Selling In Agricultural Business
• COM 21200 - Approaches To The Study Of Interpersonal Communication
• COM 25300  - Introduction To Public Relations
• COM 25600 - Introduction To Advertising
• COM 31500 - Speech Communication Of Technical Information
• COM 32000 - Small Group Communication
• COM 32400 - Introduction To Organizational Communication
• COM 32500 - Interviewing: Principles And Practice
• CSR 10500 - Introduction to Business
• CSR 20900 - Introduction To Retail Management
• CSR 28200 - Customer Relations Management
• CSR 30900 - Leadership Strategies
• CSR 33200 - Cross-Cultural Marketing And International Retailing
• CSR 34200 - Personal Finance
• CSR 40100 - Buying Of Merchandise
• CSR 48600 - Retirement Planning and Employee Benefits
• MGMT 24200 - Contemporary Problems In Personal Finance For Minorities
• MGMT 24300 - Contemporary Thought Of Minorities In Management
• MGMT 32300 - Principles Of Marketing
• MGMT 45500 - Legal Background For Business I
• MGMT 40100 - Krannert Executive Forum

• MGMT 44301 - Management Of Human Resources or
• OBHR 30000 - Management Of Human Resources

• HK 20000 - Healthy Lifestyles
• HK 37600 - History Of Sport
• HK 44000 - Human Diseases And Disorders
• HK 44500 - Principles Of Epidemiology
• HK 52400 - Managing Health, Fitness, And Sports Organizations
• HK 57200 - Sport In American Culture
• HTM 31700 - Business Etiquette For Managers
• HSCI 13100 - Introduction To Medical Terminology
• HSCI 20100 - Principles of Public Health Science
• IT 10400 - Industrial Organization
• IT 21400 - Introduction To Lean Manufacturing
• IT 33000 - Industrial Sales And Sales Management
• IT 33200 - Purchasing, Inventory, And Warehouse Management
• IT 34500 - Automatic Identification And Data Capture
• IT 35100 - Advanced Industrial Safety And Health Management
• IT 38100 - Total Productive Maintenance
• IT 38500 - Industrial Ergonomics
• IT 43200 - Financial Transactions In Distribution
• IT 43400 - Global Transportation And Logistics Management
• IT 43500 - Distribution Management Policy
• IT 44200 - Production Planning
• IT 44600 - Six Sigma Quality
• IT 48300 - Facility Design For Lean Manufacturing
• PSY 27200 - Introduction To Industrial-Organizational Psychology
Free Elective (4 credits)

Any non-remedial course offered for credit at the University not already required/being used on the plan of study

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

Critical Course

The ♦ course is considered critical. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Expired Course

Any course without a link to its description is one that has been expired. However, this course could fulfill the degree requirement historically.

Minor

Biotechnology Minor

Biotechnology refers to harnessing the properties of a living organism to develop and manufacture products that benefit human life. With this minor, you will gain the basic knowledge and understanding of life science-based products, processes, and product quality to prepare you for employment opportunities in the area of biotechnology and biotech-manufacturing.

Availability

This minor is available to any Purdue University student majoring in a four-year degree baccalaureate degree program.

Requirements
22 credit hours are required to complete the minor.

Required Courses

Semester 1 / 2

- BIOL 11200 - Fundamentals Of Biology
- BIOL 11300 - Fundamentals Of Biology

Semester 3 / 4

- IT 22600 - Biotechnology Laboratory I
- IT 22700 - Biotechnology Laboratory II
- BIOL 295E - The Biology of the Living Cell - Credit Hours: 3.00
- BIOL 24100 - Biology IV: Genetics And Molecular Biology
- IPPH 52200 - Good Regulatory Practice - Credit Hours: 3.00

Semester 5

- CPT 22700 - Bioinformatics - Credit Hours: 3.00
- IT 34200 - Introduction To Statistical Quality

Note

This interdisciplinary biotechnology initiative is the result of a partnership among the colleges of Technology, Science, Agriculture and Pharmacy.

Expired Course

Any course without a link to its description is one that has been expired. However, this course could fulfill the degree requirement historically.

Organizational Leadership Minor

A minor in organizational leadership and supervision will expose you to current issues in leadership and how organizations operate. The knowledge and skills you learn from these classes will be beneficial in any career after graduation.

The OLS minor consists of four courses (12 credit hours). The courses in the OLS minor provide for a solid foundation in leadership that fits well with other majors. It also provides a foundation for further study towards an associate and bachelor's degree in organizational leadership and supervision or, starting in Fall 2015, technology leadership and innovation.

Availability
The OLS minor is open only to any Purdue University West Lafayette campus major.

Requirements

For students who enrolled in the minor Spring 2007 or later, a grade of "C" or higher is required in ALL OLS courses for successful completion.

Required courses - four course sequence

- OLS 25200 - Human Relations In Organizations
- OLS 27400 - Applied Leadership
- OLS 28400 - Leadership Principles
- OLS 38600 - Leadership For Organizational Change And Innovation

Supplemental Management Technology Minor

Supply chain management technology is a discipline that is needed to some degree by virtually every organization. The minor offers the basic knowledge and understanding of supply chain management technologies to seek employment opportunities with a supporting skill set for supply chain operations.

Four key technologies typically influence the supply chain: software, electronic business technologies (including web portals), visibility and productivity technologies (bar codes, RFID, etc.), and process advances, such as Six Sigma and Lean processes.

Availability

This minor is available to any Purdue University student majoring in a four-year degree baccalaureate degree program.

Required Courses (all three-credit courses)

- IT 23000 - Industrial Supply Chain Management
- IT 33200 - Purchasing, Inventory, And Warehouse Management
- IT 33000 - Industrial Sales And Sales Management
- IT 21400 - Introduction To Lean Manufacturing
- IT 34500 - Automatic Identification And Data Capture

Note

Skills developed in this program can be applied to many different industries including hard goods, foods, agriculture, transportation, pharmaceuticals, and many more, while also providing job opportunities in a variety of positions including: supply chain manager, transportation analyst, logistician, purchasing manager, sales engineer, product manager, warehouse manager, branch manager, and others.