Polytechnic Institute

Polytechnic Institute

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

The academic programs in the Purdue Polytechnic 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, communication, and leadership skills sought by industries and communities.

Admissions (website)

Admission to Teacher Education

Teacher Education Requirements

Advising

Students in the Polytechnic Institute 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: choosepolytechnic@purdue.edu

Polytechnic Statewide Information

Polytechnic Institute Administration

Overview

Propel ideas into reality

Welcome to the fast lane. At the Polytechnic Institute, 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.

Faculty

Polytechnic Institute Website

Contact Information

For more information on the Polytechnic Institute, 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 Polytechnic Administration Graduate Program Information.

Minor

Advanced Global Technology Minor

In order to prepare graduates for professions in a global and societal context, the Purdue Polytechnic Institute adopted minimum global requirements in the Fall of 2017. Knowing that not every student will go abroad during their experience at Purdue, the Polytechnic has deliberately established plans of study, intercultural activities, and an overall learning environment in order to foster higher levels of global and cultural awareness. This learning philosophy is supported through formal assessments and analyses of student experiences, recommended coursework and experiences within student plans of study promoting the global and cultural capacity among all students.

The Polytechnic Minor in Advanced Global Technology includes a total of 15 credit hours. The overall minor has coursework and a global experience component. Students can achieve the minor without going overseas by participating in a 6 week international collaborative project via a formalized classroom activity.

Requirements for the Minor (15 credits)

Short Term Mobility Option:

- TECH 12000 - Design Thinking In Technology
- Complete the Pre-and Post- Intercultural Development Inventory Assessments (1st and 4th years)
- Complete the Pre-and Post BEVI (1st and 4th years)
- Complete a debrief and develop a personalized Intercultural Development Plan (end of 2nd year)
- Complete **9 credit hours** of courses from the Polytechnic list of recommended Global/ Cultural   courses. These courses must be selected during a required consultation with Office of Globalization (see below) based on your IDI profile results in conjunction with your Individual Development Plan (IDP).
  Required Global Activity
- Complete **one (1)** of the following **global activities**:
- Participate in an international internship (Outside of the US), **or**
- Participate in Faculty-led Study Abroad program, Faculty-led Field Trip Abroad, **or**
- Participate in an international capstone which contains an international travel component, **or**
- Participate in a Purdue University collaborative project which contains an international travel component, **or**
- Participate in a collaborative project which is comprised of a globally oriented task (assignment) of a duration of 6 weeks or greater through which students gain an understanding of global perspectives when solving problems (e.g. using global business practices, considering foreign policies, or solving global societal challenges). Further, it is required that the task involves interaction with international team members, international mentors, or other international stakeholders (e.g. local citizens or policy makers) in completion of the project deliverables.

Full Semester Mobility Option:

- TECH 12000 - Design Thinking In Technology
- Complete the Pre-and Post- Intercultural Development Inventory Assessments (1st and 4th years)
- Complete the Pre-and Post BEVI (1st and 4th years)
- Complete a debrief and develop a personalized Intercultural Development Plan (end of 2nd year)
- Complete a semester abroad (earning a minimum of 12 credits)

Supplemental Information

Advanced Global Technology Minor Supplemental Information

Disclaimer

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

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

School of Aviation and Transportation Technology

Overview

Purdue University has been a leader in aviation education since the mid-1950s. The School of Aviation and Transportation Technology offers seven majors at the bachelor's degree level. The curriculum touches all areas of the aviation industry, including design, flight, and business.

With our focus on industry partnerships, undergraduate students have access to real-world projects, networking opportunities and up-to-date information that make them desirable future employees and leaders. Flexible scheduling can also help you get into the workforce sooner.

Faculty

School of Aviation and Transportation Technology Website

Contact Information

School of Aviation and Transportation Technology
1401 Aviation Drive
West Lafayette IN 47907-2015
Phone: 765.494.5782
Email: atinfo@purdue.edu

Graduate Information

For Graduate Information please see Aviation and Transportation Technology Graduate Program Information.

Baccalaureate

Aeronautical Engineering Technology, BS

About the Program

Airplanes are complex mechanical marvels, utilizing several different disciplines of science, engineering and mathematics. A degree in aeronautical engineering technology will provide you with the skills and knowledge to create and maintain these machines as well as improve the quality of life for those who depend on and use them. Over the course of the program you will learn how to design, manufacture, maintain, operate and support all varieties of aerospace vehicles.

Disciplines covered in the AET program include applied aeronautical structures and materials, electrical systems, powerplants, vehicle systems and design. A Bachelor of Science degree in AET will optionally provide you with an opportunity to take the Airframe and Powerplant Certification exam.

Aeronautical Engineering Technology Website

Aviation & Transportation Technology Department Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (75 credits)

Required Major Courses (75 credits)

- AT 10000 - Introduction To Aviation Technology
- AT 11600 - Aircraft Science For Engineering Technology
- AT 12700 - Publications Records And Regulations
- AT 20501 - Statics For Aerostructures
- AT 20700 - Introduction To Aircraft Systems
- AT 20802 - Aircraft Materials
- AT 26200 - Basic Aircraft Powerplant Technology
- 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 32001 - Advanced Aviation Operations
- AT 33502 - Avionics Systems
- AT 36302 - Fundamentals Of Powerplant Systems
- AT 37200 - Aircraft Maintenance Practices
- AT 37600 - Aircraft Gas Turbine Engine Technology I
- AT 38500 - Design Support Analysis
- AT 40300 - Airman Certification Procedures
- AT 44502 - Aircraft Electronics

- AT 47200 - Advanced Composite Technology
- AT 47600 - Aircraft Gas Turbine Engine Technology II
- AT 49200 - Aircraft Airworthiness Assurance
- AT 49600 - Applied Research Proposal
- AT 49700 - Applied Research Project

Other Departmental/Program Course Requirements (42 credits)

- PHYS 22000 - General Physics ♦ (satisfies Science for core)
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity ♦ (satisfies Written Communication for core)
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World ♦ (satisfies Oral Communication for core)
- TECH 12000 - Design Thinking In Technology ♦ (satisfies Information Literacy and Science, Technology & Society Selective 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)
- STAT 30100 - Elementary Statistical Methods ♦
- CGT 16300 - Graphical Communication And Spatial Analysis ♦
- Behavioral/Social Science Foundational Selective - Credit Hours: 3.00 (satisfies Human Cultures: Behavioral/Social Science for core)
- Cornerstone Level II Selective- Credit Hours: 3.00
- Cornerstone Level III Selective- Credit Hours: 3.00
- Cornerstone Level III Selective - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core)
- Economics Selective - Credit Hours: 3.00
- Science Foundational Selective - Credit Hours: 3.00 (satisfies Science for core)

Additional Degree Requirements

Click here for Aviation Technology Supplemental Information.

Electives (3 credits)

- Elective (any course/any subject) - Credit Hours: 3.00

University Requirements

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)

- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Civics Literacy Proficiency Requirement:

The Civics Literacy Proficiency activities are designed to develop civic knowledge of Purdue students in an effort to graduate a more informed citizenry.

Students will complete the Proficiency by passing a test of civic knowledge, and completing <u>one of three</u> paths:

- Attending six approved civics-related events and completing an assessment for each; or
- Completing 12 podcasts created by the Purdue Center for C-SPAN Scholarship and Engagement that use C-SPAN material and completing an assessment for each; or
- Earning a passing grade for one of **these approved courses** (or transferring in approved AP or departmental credit in lieu of taking a course)
  For more information visit the Civics Literacy Proficiency **website.**

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AT 10000 - Introduction To Aviation Technology
- AT 11600 - Aircraft Science For Engineering Technology
- AT 12700 - Publications Records And Regulations
- AT 27800 - Nondestructive Testing For Aircraft
- MA 15800 - Precalculus- Functions And Trigonometry
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity ♦

16 Credits

Spring 1st Year

- AT 20700 - Introduction To Aircraft Systems
- AT 20802 - Aircraft Materials
- TECH 12000 - Design Thinking In Technology ♦
- CGT 16300 - Graphical Communication And Spatial Analysis ♦
- PHYS 22000 - General Physics ♦

15 Credits

Fall 2nd Year

- AT 26502 - Aircraft Electrical Systems
- AT 26700 - Fixed And Rotary Wing Assemblies
- AT 27200 - Introduction To Composite Technology
- AT 30702 - Advanced Aircraft Systems
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World ♦

15 Credits

Spring 2nd Year

- AT 26200 - Basic Aircraft Powerplant Technology
- AT 33502 - Avionics Systems
- AT 36302 - Fundamentals Of Powerplant Systems
- AT 37600 - Aircraft Gas Turbine Engine Technology I

15 Credits

Fall 3rd Year

- AT 20501 - Statics For Aerostructures
- AT 37200 - Aircraft Maintenance Practices
- AT 40300 - Airman Certification Procedures
- AT 47600 - Aircraft Gas Turbine Engine Technology II
- MA 16010 - Applied Calculus I
- Elective - Credit Hours: 3.00

16 Credits

Spring 3rd Year

- AT 32001 - Advanced Aviation Operations
- AT 30802 - Aircraft Materials Processes
- AT 38500 - Design Support Analysis
- AT 47200 - Advanced Composite Technology
- STAT 30100 - Elementary Statistical Methods ♦

14 Credits

Fall 4th Year

- AT 44502 - Aircraft Electronics
- AT 49600 - Applied Research Proposal
- Cornerstone Level II Selective - Credit Hours: 3.00

- Cornerstone Level III Human Cultures Selective - Credit Hours: 3.00
- Science Selective - Credit Hours: 3.00

14 Credits

Spring 4th Year

- AT 49200 - Aircraft Airworthiness Assurance
- AT 49700 - Applied Research Project
- Behavioral/Social Science Selective - Credt Hours: 3.00
- Cornerstone Level III Selective- Credit Hours: 3.00
- Economics Selective - Credit Hours: 3.00

15 Credits

Note

- 2.0 Graduation GPA required for Bachelor of Science degree.
- A student may elect the Pass/Not-Pass (P/NP) grading option for courses without an AT prefix. A student may not elect this option for more than 20 percent of the total credit hours required for graduation. AT prefix courses may be taken for P/NP only under extenuating circumstances and in close coordination with advisors and faculty. Some AT prefix courses have been established as P/NP for all students and are therefore required to be taken in that manner. For further information regarding P/NP, students should refer to the Purdue Regulations, Grades and Grade Reports, Pass/Not-Pass Option & Scholastic Indexes.

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

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

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Aerospace Financial Analysis, BS

About the Program

The business side of aviation industry is complex, from aircraft leases to fuel options to route efficiency. When you major in aerospace financial analysis at Purdue University, you will gain the expertise necessary to bridge the knowledge gap between airline operations professionals and their financial counterparts.

Aerospace Financial Analysis Website

Aviation & Transportation Technology Department Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (59 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 25200 - Aviation Projects
- AT 34001 - Aerospace Business Statistics or
- STAT 22500 - Introduction To Probability Models
- AT 35900 - Airport Management
- AT 36201 - Aviation Operations
- AT 41200 - Aviation Finance
- AT 42101 - Managerial Economics In Aviation
- AT 42201 - Aerospace Risk Management or
- AT 38100 - Aviation Security
- AT 47500 - Aviation Law
- AT 48100 - Aviation Safety Problems
- AT 49401 - Capstone Project Proposal
- AT 49501 - Applied Capstone Research Project
- MGMT 20000 - Introductory Accounting ♦
- MGMT 20100 - Management Accounting I ♦
- MGMT 30400 - Introduction To Financial Management ♦

Other Departmental/Program Course Requirements (52 credits)

- PHYS 22000 - General Physics ♦ (satisfies Science for core)
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity ♦ (satisfies Written Communication for core)
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World ♦ (satisfies Oral Communication for core)

- TECH 12000 - Design Thinking In Technology ♦ (satisfies Information Literacy Selective 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)
- STAT 30100 - Elementary Statistical Methods ♦
- Behavioral/Social Science Foundational Selective - Credit Hours: 3.00 (satisfies Human Cultures: Behavioral/Social Science for core)
- Cornerstone Level II Selective List - Credit Hours: 3.00
- Cornerstone Level III Selective List - Credit Hours: 3.00
- Cornerstone Level III Selective - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core)
- Economics Selective - Credit Hours: 3.00
- Science Selective - Credit Hours: 3.00 (satisfies Science Selective for core)
- Any University - approved minor or departmentally - approved thematic area of study - Credit Hours: 12.00

Additional Degree Requirements

Click here for Aviation Technology Supplemental Information.

Electives (9 credits)

- Electives (any course, any subject) - Credit Hours: 9.00

University Requirements

University Core Requirements

For a complete listing of University Core Course Selectives, visit the <u>Provost's Website</u>.

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Civics Literacy Proficiency Requirement:

The Civics Literacy Proficiency activities are designed to develop civic knowledge of Purdue students in an effort to graduate a more informed citizenry.

Students will complete the Proficiency by passing a test of civic knowledge, and completing <u>one of three</u> paths:

- Attending six approved civics-related events and completing an assessment for each; or
- Completing 12 podcasts created by the Purdue Center for C-SPAN Scholarship and Engagement that use C-SPAN material and completing an assessment for each; or

- Earning a passing grade for one of **these approved courses** (or transferring in approved AP or departmental credit in lieu of taking a course)
  For more information visit the Civics Literacy Proficiency **website.**

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AT 10000 - Introduction To Aviation Technology
- AT 10600 - Basic Aircraft Science
- AT 14400 - Private Pilot Lectures
- MA 15800 - Precalculus- Functions And Trigonometry
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity ♦ or
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World ♦

14 Credits

Spring 1st Year

- AT 10200 - Aviation Business
- AT 10300 - Aerospace Vehicle Propulsion And Tracking Systems
- TECH 12000 - Design Thinking In Technology ♦
- MA 16010 - Applied Calculus I
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World ♦ or
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity ♦

15 Credits

Fall 2nd Year

- AT 20300 - Aviation Operations Management
- AT 25200 - Aviation Projects
- AT 36201 - Aviation Operations
- MGMT 20000 - Introductory Accounting ♦
- Science Core Selective - Credit Hours: 3.00

15 Credits

Spring 2nd Year

- AT 20200 - Aerospace Vehicle Systems Design, Analysis And Operations

- MGMT 20100 - Management Accounting I ♦
- PHYS 22000 - General Physics ♦
- Behavioral/Social Science Selective List - Credit Hours: 3.00
- Cornerstone Level II Selective List - Credit Hours: 3.00

16 Credits

Fall 3rd Year

- STAT 30100 - Elementary Statistical Methods ♦
- AT 35900 - Airport Management
- Thematic Area Selective - Credit Hours: 3.00
- Cornerstone Level III Selective List - Credit Hours: 3.00
- Economics Selective - Credit Hours: 3.00

15 Credits

Spring 3rd Year

- AT 34001 - Aerospace Business Statistics or
- STAT 22500 - Introduction To Probability Models
- AT 42101 - Managerial Economics In Aviation
- AT 47500 - Aviation Law
- Thematic Area Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Fall 4th Year

- AT 41200 - Aviation Finance
- AT 48100 - Aviation Safety Problems
- MGMT 30400 - Introduction To Financial Management ♦
- Thematic Area Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Spring 4th Year

- AT 38100 - Aviation Security or
- AT 42201 - Aerospace Risk Management
- AT 49401 - Capstone Project Proposal
- AT 49501 - Applied Capstone Research Project
- Cornerstone Level III Humanities Selective List - Credit Hours 3.00

- Thematic Area Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Notes

- 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.
- 2.0 Graduation GPA required for Bachelor of Science degree.
- A student may elect the Pass/Not-Pass (P/NP) grading option for courses without an AT prefix. A student may not elect this option for more than 20 percent of the total credit hours required for graduation. AT prefix courses may be taken for P/NP only under extenuating circumstances and in close coordination with advisors and faculty. Some AT prefix courses have been established as P/NP for all students and are therefore required to be taken in that manner. For further information regarding P/NP, students should refer to the Purdue Regulations, Grades and Grade Reports, Pass/Not-Pass Option & Scholastic Indexes.

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Disclaimer

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Airline Management and Operations, BS

About the Program

Managing an airline takes more than shuttling passengers between airports. It includes scheduling, planning networks, maintenance of aircraft, staffing, customer service and more. When you major in airline management and operations at Purdue University you will gain the expertise necessary to navigate the many aspects of managing an airline. You will gain a broad exposure to aviation management with a strong focus on airline operations. Your courses will provide insights into how the world's airlines make daily business decisions.

Airline Management Operations Website

Aviation & Transportation Technology Department Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

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 25200 - Aviation Projects
- AT 33800 - Airline Management
- AT 36201 - Aviation Operations
- AT 41200 - Aviation Finance
- AT 42101 - Managerial Economics In Aviation
- AT 43800 - Airline Operations
- AT 47500 - Aviation Law
- AT 48100 - Aviation Safety Problems
- AT 49401 - Capstone Project Proposal
- AT 49501 - Applied Capstone Research Project
- MGMT 20000 - Introductory Accounting ♦
- MGMT 20100 - Management Accounting I ♦
- Aviation Management Selectives - Credit Hours: 6.00

Other Departmental/Program Course Requirements (52 credits)

- PHYS 22000 - General Physics ♦ (satisfies Science for core)
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity ♦ (satisfies Written Communication for core)
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World ♦ (satisfies Oral Communication for core)
- TECH 12000 - Design Thinking In Technology ♦ (satisfies Information Literacy Selective 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)
- STAT 30100 - Elementary Statistical Methods ♦
- Behavioral/Social Science Foundational Selective (satisfies Human Culture Behavioral/Social Science for core) - Credit Hours: 3.00
- Cornerstone Level II Selective - Credit Hours: 3.00
- Cornerstone Level III Selective - Credit Hours: 3.00
- Cornerstone Level III Selective (satisfies Human Culture Humanities for core) - Credit Hours: 3.00
- Economics Selective - Credit Hours: 3.00
- Science Core Selective (satisfies Science Selective for core) - Credit Hours: 3.00
- Any University - approved minor or departmentally - approved thematic area of study - Credit Hours: 12.00

Additional Degree Requirements

Click here for Aviation Technology Supplemental Information.

Electives (9 credits)

Any Course, any subject. Credit Hours: 9.00

University Requirements

University Core Requirements

For a complete listing of University Core Course Selectives, visit the <u>Provost's Website</u>**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Civics Literacy Proficiency Requirement:

The Civics Literacy Proficiency activities are designed to develop civic knowledge of Purdue students in an effort to graduate a more informed citizenry.

Students will complete the Proficiency by passing a test of civic knowledge, and completing <u>one of three</u> paths:

- Attending six approved civics-related events and completing an assessment for each; or
- Completing 12 podcasts created by the Purdue Center for C-SPAN Scholarship and Engagement that use C-SPAN material and completing an assessment for each; or
- Earning a passing grade for one of **these approved courses** (or transferring in approved AP or departmental credit in lieu of taking a course)
  For more information visit the Civics Literacy Proficiency **website.**

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AT 10000 - Introduction To Aviation Technology
- AT 10600 - Basic Aircraft Science
- AT 14400 - Private Pilot Lectures
- MA 15800 - Precalculus- Functions And Trigonometry
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity ♦

14 Credits

Spring 1st Year

- AT 10200 - Aviation Business
- AT 10300 - Aerospace Vehicle Propulsion And Tracking Systems
- TECH 12000 - Design Thinking In Technology ♦
- MA 16010 - Applied Calculus I
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World ♦

15 Credits

Fall 2nd Year

- AT 20300 - Aviation Operations Management
- AT 25200 - Aviation Projects
- AT 36201 - Aviation Operations
- MGMT 20000 - Introductory Accounting ♦
- Science Core Selective - Credit Hours: 3.00

15 Credits

Spring 2nd Year

- AT 20200 - Aerospace Vehicle Systems Design, Analysis And Operations
- MGMT 20100 - Management Accounting I ♦
- PHYS 22000 - General Physics ♦
- Cornerstone Level II Selective List - Credit Hours: 3.00
- Behavioral/Social Science Selective - Credit Hours: 3.00

16 Credits

Fall 3rd Year

- AT 33800 - Airline Management
- STAT 30100 - Elementary Statistical Methods ♦
- Aviation Management Selective - Credit Hours: 3.00
- Thematic Area Selective - Credit Hours: 3.00
- Economics Selective - Credit Hours: 3.00

15 Credits

Spring 3rd Year

- AT 42101 - Managerial Economics In Aviation
- AT 47500 - Aviation Law
- Thematic Area Selective - Credit Hours: 3.00
- Cornerstone Level III Selective List - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Fall 4th Year

- AT 41200 - Aviation Finance
- AT 43800 - Airline Operations
- AT 48100 - Aviation Safety Problems
- Thematic Area Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Spring 4th Year

- AT 49401 - Capstone Project Proposal
- AT 49501 - Applied Capstone Research Project
- Thematic Area Selective - Credit Hours: 3.00
- Aviation Management Selective - Credit Hours: 3.00
- Cornerstone Level III Humanities Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Notes

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Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

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

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Airport Management and Operations, BS

About the Program

Managing an airport takes more than loading passengers and maintaining runways. It includes security, customer service, knowledge of federal regulations, baggage handling, staffing and more. When you major in airport management and operations at Purdue University you will gain the expertise necessary to navigate the many aspects of operating an airport. You will gain a broad exposure to aviation management with a strong focus on airport operations. Your courses will provide insights into how the world's airports make daily business decisions.

Airport Management Operations Website

Aviation & Transportation Technology Department Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (59 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 25200 - Aviation Projects
- AT 35900 - Airport Management
- AT 36201 - Aviation Operations

- AT 41200 - Aviation Finance
- AT 42101 - Managerial Economics In Aviation
- AT 45100 - Airport Operations
- AT 45900 - Airport Manager Certification
- AT 47500 - Aviation Law
- AT 48100 - Aviation Safety Problems
- AT 49401 - Capstone Project Proposal
- AT 49501 - Applied Capstone Research Project
- MGMT 20000 - Introductory Accounting ♦
- MGMT 20100 - Management Accounting I ♦
- Aviation Management Selectives - Credit Hours: 3.00

Other Departmental/Program Course Requirements (52 credits)

- PHYS 22000 - General Physics ♦ (satisfies Science for core)
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity ♦ (satisfies Written Communication for core)
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World ♦ (satisfies Oral Communication for core)
- TECH 12000 - Design Thinking In Technology ♦ (satisfies Information Literacy Selective 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)
- STAT 30100 - Elementary Statistical Methods ♦
- Behavioral/Social Science Foundational Selective (satisfies Human Culture Behavioral/Social Science for core) - Credit Hours: 3.00
- Cornerstone Level II Selective List - Credit Hours: 3.00
- Cornerstone Level III Selective List - Credit Hours: 3.00
- Cornerstone Level III Selective (satisfies Human Cultures Humanities for core) - Credit Hours: 3.00
- Science Core Selective (satisfies Science Selective for core) - Credit Hours: 3.00
- Economics Selective - Credit Hours: 3.00
- Any University - approved minor or departmentally - approved thematic area of study - Credit Hours: 12.00

Additional Degree Requirements

Click here for Aviation Technology Supplemental Information.

Electives (9 credits)

Any Course, any subject. Credit Hours: 9.00

University Requirements

University Core Requirements

For a complete listing of University Core Course Selectives, visit the <u>Provost's Website</u>**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Civics Literacy Proficiency Requirement:

The Civics Literacy Proficiency activities are designed to develop civic knowledge of Purdue students in an effort to graduate a more informed citizenry.

Students will complete the Proficiency by passing a test of civic knowledge, and completing <u>one of three</u> paths:

- Attending six approved civics-related events and completing an assessment for each; or
- Completing 12 podcasts created by the Purdue Center for C-SPAN Scholarship and Engagement that use C-SPAN material and completing an assessment for each; or
- Earning a passing grade for one of **these approved courses** (or transferring in approved AP or departmental credit in lieu of taking a course)
  For more information visit the Civics Literacy Proficiency **website.**

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Semester

- AT 10000 - Introduction To Aviation Technology
- AT 10600 - Basic Aircraft Science
- AT 14400 - Private Pilot Lectures
- MA 15800 - Precalculus- Functions And Trigonometry
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity ♦

14 Credits

Spring 1st Year

- AT 10200 - Aviation Business
- AT 10300 - Aerospace Vehicle Propulsion And Tracking Systems
- TECH 12000 - Design Thinking In Technology ♦
- MA 16010 - Applied Calculus I
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World ♦

15 Credits

Fall 2nd Year

- AT 20300 - Aviation Operations Management
- AT 25200 - Aviation Projects
- AT 36201 - Aviation Operations
- MGMT 20000 - Introductory Accounting ♦
- Science Core Selective - Credit Hours: 3.00

15 Credits

Spring 2nd Year

- AT 20200 - Aerospace Vehicle Systems Design, Analysis And Operations
- MGMT 20100 - Management Accounting I ♦
- PHYS 22000 - General Physics ♦
- Behavioral / Social Science Selective - Credit Hours: 3.00
- Cornerstone Level II Selective List - Credit Hours: 3.00

16 Credits

Fall 3rd Year

- AT 35900 - Airport Management
- STAT 30100 - Elementary Statistical Methods ♦
- Aviation Management Selective - Credit Hours: 3.00
- Thematic Area Selective - Credit Hours: 3.00
- Economics Selective - Credit Hours: 3.00

15 Credits

Spring 3rd Year

- AT 42101 - Managerial Economics In Aviation
- AT 47500 - Aviation Law
- Cornerstone Level III Selective List - Credit Hours: 3.00
- Thematic Area Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Fall 4th Year

- AT 41200 - Aviation Finance

- AT 45100 - Airport Operations
- AT 48100 - Aviation Safety Problems
- Thematic Area Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Spring 4th Year

- AT 45900 - Airport Manager Certification
- AT 49401 - Capstone Project Proposal
- AT 49501 - Applied Capstone Research Project
- Cornerstone Level III Selective (satisfies Human Cultures Humanities for core) - Credit Hours: 3.00
- Thematic Area Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Notes

- 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.
- 2.0 Graduation GPA required for Bachelor of Science degree.
- A student may elect the Pass/Not-Pass (P/NP) grading option for courses without an AT prefix. A student may not elect this option for more than 20 percent of the total credit hours required for graduation. AT prefix courses may be taken for P/NP only under extenuating circumstances and in close coordination with advisors and faculty. Some AT prefix courses have been established as P/NP for all students and are therefore required to be taken in that manner. For further information regarding P/NP, students should refer to the Purdue Regulations, Grades and Grade Reports, Pass/Not-Pass Option & Scholastic Indexes.

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

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

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Aviation Management, BS

About the Program

At any given time there are thousands of airplanes crisscrossing the globe. Operations on the ground -- airports, airline companies, air traffic controllers, and more -- help ensure passenger safety, efficient logistics and healthy business practices. For these roles, the industry requires knowledgeable individuals with excellent critical thinking skills. With an aviation management degree, you will gain the knowledge and skills to be an important part of the complex airline industry.

Aviation Management Website

Aviation & Transportation Technology Department Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

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 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
- AT 49401 - Capstone Project Proposal
- AT 49501 - Applied Capstone Research Project
- MGMT 20000 - Introductory Accounting ♦
- MGMT 20100 - Management Accounting I ♦
- Aviation Management Selectives - Credit Hours: 12.00

Other Departmental /Program Course Requirements (52 credits)

- PHYS 22000 - General Physics ♦ (satisfies Science for core)
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity ♦ (satisfies Written Communication for core)
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World ♦ (satisfies Oral Communication for core)
- TECH 12000 - Design Thinking In Technology ♦ (satisfies Information Literacy Selective 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)
- STAT 30100 - Elementary Statistical Methods ♦
- Behavioral/Social Science Foundational Selective (satisfies Human Culture Behavioral/Social Science for core) - Credit Hours: 3.00
- Cornerstone Level II Selective - Credit Hours: 3.00
- Cornerstone Level III Selective - Credit Hours: 3.00
- Cornerstone Level III Selective (satisfies Human Culture Humanities for core) - Credit Hours: 3.00
- Economics Selective - Credit Hours: 3.00
- Science Core Selective (satisfies Science Selective for core) - Credit Hours: 3.00
- Any University - approved minor or departmentally - approved thematic area of study - Credit Hours: 12.00

Additional Degree Requirements

Click here for Aviation Technology Supplemental Information.

Electives (9 credits)

- Electives (any course, any subject) - Credit Hours: 9.00

University Requirements

University Core Requirements

For a complete listing of University Core Course Selectives, visit the <u>Provost's Website</u>.

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Civics Literacy Proficiency Requirement:

The Civics Literacy Proficiency activities are designed to develop civic knowledge of Purdue students in an effort to graduate a more informed citizenry.

Students will complete the Proficiency by passing a test of civic knowledge, and completing <u>one of three</u> paths:

- Attending six approved civics-related events and completing an assessment for each; or
- Completing 12 podcasts created by the Purdue Center for C-SPAN Scholarship and Engagement that use C-SPAN material and completing an assessment for each; or

- Earning a passing grade for one of **these approved courses** (or transferring in approved AP or departmental credit in lieu of taking a course)

  For more information visit the Civics Literacy Proficiency **website.**

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AT 10000 - Introduction To Aviation Technology
- AT 10600 - Basic Aircraft Science
- AT 14400 - Private Pilot Lectures
- MA 15800 - Precalculus- Functions And Trigonometry
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity ♦

14 Credits

Spring 1st Year

- AT 10200 - Aviation Business
- AT 10300 - Aerospace Vehicle Propulsion And Tracking Systems
- TECH 12000 - Design Thinking In Technology ♦
- MA 16010 - Applied Calculus I
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World ♦

15 Credits

Fall 2nd Year

- AT 20300 - Aviation Operations Management
- AT 25200 - Aviation Projects
- AT 36201 - Aviation Operations
- MGMT 20000 - Introductory Accounting ♦
- Science Core Selective - Credit Hours: 3.00

15 Credits

Spring 2nd Year

- AT 20200 - Aerospace Vehicle Systems Design, Analysis And Operations
- MGMT 20100 - Management Accounting I ♦
- PHYS 22000 - General Physics ♦
- Behavioral/Social Science Selective - Credit Hours: 3.00
- Cornerstone Level II Selective List - Credit Hours: 3.00

16 Credits

Fall 3rd Year

- STAT 30100 - Elementary Statistical Methods ♦
- Aviation Management Selective - Credit Hours: 3.00
- Aviation Management Selective - Credit Hours: 3.00
- Economics Selective - Credit Hours: 3.00
- Thematic Area Selective - Credit Hours: 3.00

15 Credits

Spring 3rd Year

- AT 42101 - Managerial Economics In Aviation
- AT 47500 - Aviation Law
- Thematic Area Selective - Credit Hours: 3.00
- Cornerstone Level III Selective List - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Fall 4th Year

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

15 Credits

Spring 4th Year

- AT 49401 - Capstone Project Proposal
- AT 49501 - Applied Capstone Research Project
- Thematic Area Selective - Credit Hours: 3.00
- Cornerstone Level III Humanities Selective - Credit Hours: 3.00
- Aviation Management Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Note

- 2.0 Graduation GPA required for Bachelor of Science degree.
- A student may elect the Pass/Not-Pass (P/NP) grading option for courses without an AT prefix. A student may not elect this option for more than 20 percent of the total credit hours required for graduation. AT prefix courses may be taken for P/NP only under extenuating circumstances and in close coordination with advisors and faculty. Some AT prefix courses have been established as P/NP for all students and are therefore required to be taken in that manner. For further information regarding P/NP, students should refer to the Purdue Regulations, Grades and Grade Reports, Pass/Not-Pass Option & Scholastic Indexes.

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

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

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Professional Flight Technology, BS

About the Program

Purdue offers a bachelor's degree in professional flight that provides you with a larger perspective of the aviation industry. Your classes range from how an airplane is built to decision-making in the airline industry. You will learn by flying in our state-of-art fleet and matching simulators, and from aviation professionals with significant industry experience. The School of Aviation and

Transportation Technology encourages you to obtain the highest level of medical and student certificates possible during your time at Purdue.

Flight (Professional Flight Technology) Website

Professional Flight Technology Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (59 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 14400 - Private Pilot Lectures
- AT 14500 - Private Pilot Flight
- AT 20200 - Aerospace Vehicle Systems Design, Analysis And Operations
- AT 20300 - Aviation Operations Management
- AT 21000 - Ground Trainer I
- AT 21100 - Ground Trainer II
- AT 22300 - Human Factors For Flight Crews
- AT 24302 - Commercial Flight I Under Federal Aviation Regulations Part 141
- AT 24802 - Commercial Flight II Under Federal Aviation Regulations Part 141
- AT 24900 - Instrument Flight Lectures
- AT 25302 - Instrument Flight Under Federal Aviation Regulations Part 141
- AT 25400 - Commercial Flight Lectures
- AT 32501 - Advanced Aviation Meteorology
- 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 41600 - Airline Indoctrination
- AT 47500 - Aviation Law
- AT 48700 - Transport Aircraft Simulation Laboratory
- AT 49401 - Capstone Project Proposal
- AT 49501 - Applied Capstone Research Project

Other Departmental /Program Course Requirements (52 credits)

- PHYS 22000 - General Physics ♦ (satisfies Science for core)

- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity ♦ (satisfies Written Communication for core)
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World ♦ (satisfies Oral Communication for core)
- TECH 12000 - Design Thinking In Technology ♦ (satisfies Information Literacy Selective 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)
- STAT 30100 - Elementary Statistical Methods ♦
- Behavioral/Social Science Foundational Selective (satisfies Human Culture Behavioral/Social Science for core) - Credit Hours: 3.00
- Cornerstone Level II Selective - Credit Hours: 3.00
- Cornerstone Level III Selective - Credit Hours: 3.00
- Cornerstone Level III Selective (satisfies Human Cultures Humanities for core) - Credit Hours: 3.00
- Science Foundational Selective (satisfies Science Selective for core) - Credit Hours: 3.00
- Economics Selective - Credit Hours: 3.00
- Any University-approved minor or departmentally-approved thematic area of study - Credit Hours: 12.00

Additional Requirements

Click here for Aviation Technology Supplemental Information.

Electives (9 credits)

Any Course, any subject. Credit Hours: 9.00

University Requirements

University Core Requirements

For a complete listing of University Core Course Selectives, visit the <u>Provost's Website</u>**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Civics Literacy Proficiency Requirement:

The Civics Literacy Proficiency activities are designed to develop civic knowledge of Purdue students in an effort to graduate a more informed citizenry.

Students will complete the Proficiency by passing a test of civic knowledge, and completing <u>one of three</u> paths:

- Attending six approved civics-related events and completing an assessment for each; or
- Completing 12 podcasts created by the Purdue Center for C-SPAN Scholarship and Engagement that use C-SPAN material and completing an assessment for each; or
- Earning a passing grade for one of **these approved courses** (or transferring in approved AP or departmental credit in lieu of taking a course)
  For more information visit the Civics Literacy Proficiency **website.**

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AT 10000 - Introduction To Aviation Technology
- AT 10200 - Aviation Business
- AT 14400 - Private Pilot Lectures
- AT 14500 - Private Pilot Flight
- MA 15800 - Precalculus- Functions And Trigonometry
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity ♦ or
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World ♦

16 Credits

Spring 1st Year

- AT 10300 - Aerospace Vehicle Propulsion And Tracking Systems
- AT 24302 - Commercial Flight I Under Federal Aviation Regulations Part 141
- TECH 12000 - Design Thinking In Technology
- MA 16010 - Applied Calculus I
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World ♦ or
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity ♦

14 Credits

Fall 2nd Year

- 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 24802 - Commercial Flight II Under Federal Aviation Regulations Part 141
- AT 24900 - Instrument Flight Lectures

15 Credits

Spring 2nd Year

- AT 21100 - Ground Trainer II
- AT 25302 - Instrument Flight Under Federal Aviation Regulations Part 141
- AT 25400 - Commercial Flight Lectures
- PHYS 22000 - General Physics ♦
- Thematic Area Selective - Credit Hours: 3.00
- Behavior/Social Science Selective List - Credit Hours: 3.00

16 Credits

Fall 3rd Year

- AT 35300 - Multi-Engine Flight
- AT 35400 - Turbine Flight Operations Lecture
- STAT 30100 - Elementary Statistical Methods ♦
- Cornerstone Level III Selective List (satisfies Human Culture Humanities for core) - Credit Hours: 3.00
- Thematic Area Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Spring 3rd Year

- AT 32700 - Advanced Transport Flight Operations
- AT 38800 - Large Aircraft Systems
- AT 39500 - Turbine Aircraft Simulation Laboratory
- AT 32501 - Advanced Aviation Meteorology
- AT 47500 - Aviation Law
- Cornerstone Level II Selective List - Credit Hours: 3.00

16 Credits

Fall 4th Year

- AT 41600 - Airline Indoctrination
- AT 48700 - Transport Aircraft Simulation Laboratory
- ECON 21000 - Principles Of Economics or
- ECON 25100 - Microeconomics or
- ECON 25200 - Macroeconomics or
- CSR 34200 - Personal Finance
- Thematic Area Selective - Credit Hours: 3.00
- Cornerstone Level III Selective List - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

16 Credits

Spring 4th Year

- AT 49401 - Capstone Project Proposal
- AT 49501 - Applied Capstone Research Project
- Thematic Area Selective - Credit Hours: 3.00
- Science Core Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

12 Credits

Note

- 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.
- 2.0 Graduation GPA required for Bachelor of Science degree.
- The following courses are allowed as Pass/No Pass: AT 14500, 14502, 21000, 21100, 24300, 24302, 24500, 24800, 24802, 25300, 25302, 35100, 35300, 36500, 36600, 36700, 36800, 38300, 39500, 48700, 48800
- A student may elect the Pass/Not-Pass (P/NP) grading option for courses without an AT prefix. A student may not elect this option for more than 20 percent of the total credit hours required for graduation. AT prefix courses may be taken for P/NP only under extenuating circumstances and in close coordination with advisors and faculty. Some AT prefix courses have been established as P/NP for all students and are therefore required to be taken in that manner. For further information regarding P/NP, students should refer to the Purdue Regulations, Grades and Grade Reports, Pass/Not-Pass Option & Scholastic Indexes.

Critical Course

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Disclaimer

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The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Unmanned Aerial Systems, BS

About the Program

Drones, or unmanned aircraft, will be soon be part of everyday life. Companies who adopt the technology will need experts to help them navigate flight paths as well as rules and regulations. A major in unmanned aerial systems (UAS) will equip you to be a leader in this new career field. In fact, the Association for Unmanned Vehicle Systems International believes 70,000 new jobs will be created in the three years after unmanned aircraft are integrated into the U.S. airspace system.

Unmanned Aerial Systems Website

Aviation & Transportation Technology Department Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (110 credits)

Required Major Courses (58 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 10901 - Introduction To Unmanned Aerial System Operations
- AT 11901 - Unmanned Aerial Systems: Safety And Risk Management
- AT 20200 - Aerospace Vehicle Systems Design, Analysis And Operations
- AT 20300 - Aviation Operations Management
- AT 20900 - Civilian Unmanned Aerial Systems
- AT 21900 - Unmanned Aerial Systems Design, Build, Test
- AT 30901 - Introduction To UAS Sensor Technology
- AT 31900 - Unmanned Aerial Systems Applications, Data And Documentation
- AT 40900 - Unmanned Aerial Systems Capstone I
- AT 41901 - Unmanned Aerial Systems Capstone II
- UAS Related Selectives - Credit Hours: 18.00

Other Departmental /Program Course Requirements (52 credits)

- PHYS 22000 - General Physics ♦ (satisfies Science for core)
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity ♦ (satisfies Written Communication for core)
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World ♦ (satisfies Oral Communication for core)
- TECH 12000 - Design Thinking In Technology ♦ (satisfies Information Literacy Selective 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)
- STAT 30100 - Elementary Statistical Methods ♦
- Behavioral/Social Science Foundational Selective (satisfies Human Culture Behavioral/Social Science for core) - Credit Hours: 3.00
- Cornerstone Level II Selective - Credit Hours: 3.00

- Cornerstone Level III Selective - Credit Hours: 3.00
- Cornerstone Level III Selective (satisfies Human Cultures Humanities for core) - Credit Hours: 3.00
- Science Core Selective (satisfies Science Selective for core) - Credit Hours: 3.00
- Economics Selective - Credit Hours: 3.00
- Any University-approved minor or departmentally-approved thematic area of study - Credit Hours: 12.00

Additional Requirements

Click here for Aviation Technology Supplemental Information.

Click here for Unmanned Aerial Systems Supplemental Information.

Electives (10 credits)

- Elective (any course, any subject) - Credit Hours: 10.00

University Requirements

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website.

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Civics Literacy Proficiency Requirement:

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Students will complete the Proficiency by passing a test of civic knowledge, and completing one of three paths:

- Attending six approved civics-related events and completing an assessment for each; or
- Completing 12 podcasts created by the Purdue Center for C-SPAN Scholarship and Engagement that use C-SPAN material and completing an assessment for each; or
- Earning a passing grade for one of **these approved courses** (or transferring in approved AP or departmental credit in lieu of taking a course)
  For more information visit the Civics Literacy Proficiency **website.**

Prerequisite Information:

Program Requirements

Fall 1st Year

- AT 10000 - Introduction To Aviation Technology
- AT 10600 - Basic Aircraft Science
- AT 10901 - Introduction To Unmanned Aerial System Operations
- MA 15800 - Precalculus- Functions And Trigonometry
- TECH 12000 - Design Thinking In Technology ♦
- Elective - Credit Hours: 1.00

14 Credits

Spring 1st Year

- AT 10200 - Aviation Business
- AT 10300 - Aerospace Vehicle Propulsion And Tracking Systems
- AT 11901 - Unmanned Aerial Systems: Safety And Risk Management
- MA 16010 - Applied Calculus I
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity ♦

15 Credits

Fall 2nd Year

- AT 20200 - Aerospace Vehicle Systems Design, Analysis And Operations
- AT 20900 - Civilian Unmanned Aerial Systems
- PHYS 22000 - General Physics ♦
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World ♦
- UAS Related Selective - Credit Hours 3.00

16 Credits

Spring 2nd Year

- AT 20300 - Aviation Operations Management
- AT 21900 - Unmanned Aerial Systems Design, Build, Test
- Cornerstone Level II Selective - Credit Hours: 3.00
- Science Core Selective - Credit Hours: 3.00
- UAS Related Selective - Credit Hours 3.00

15 Credits

Fall 3rd Year

- AT 30901 - Introduction To UAS Sensor Technology
- STAT 30100 - Elementary Statistical Methods ♦
- UAS Related Selective - Credit Hours: 3.00
- Thematic Area Selective - Credit Hours: 3.00
- Behavioral/Social Science Selective - Credit Hours: 3.00

15 Credits

Spring 3rd Year

- AT 31900 - Unmanned Aerial Systems Applications, Data And Documentation
- UAS Related Selective - Credit Hours: 3.00
- Thematic Area Selective - Credit Hours: 3.00
- Economics Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Fall 4th Year

- AT 40900 - Unmanned Aerial Systems Capstone I
- Cornerstone Level III Selective (satisfies Human Cultures Humanities for core) - Credit Hours: 3.00
- UAS Related Selective - Credit Hours: 3.00
- Thematic Area Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Spring 4th Year

- AT 41901 - Unmanned Aerial Systems Capstone II
- Cornerstone Level III Selective - Credit Hours: 3.00
- Thematic Area Selective - Credit Hours: 3.00
- UAS Related Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Notes

- 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.
- 2.0 Graduation GPA required for Bachelor of Science degree.

- A student may elect the Pass/Not-Pass (P/NP) grading option for courses without an AT prefix. A student may not elect this option for more than 20 percent of the total credit hours required for graduation. AT prefix courses may be taken for P/NP only under extenuating circumstances and in close coordination with advisors and faculty. Some AT prefix courses have been established as P/NP for all students and are therefore required to be taken in that manner. For further information regarding P/NP, students should refer to the Purdue Regulations, Grades and Grade Reports, Pass/Not-Pass Option & Scholastic Indexes.

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

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

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Minor

Unmanned Aerial Systems Minor

Requirements for the Minor (15 credits)

Required Courses (15 credits)

- AT 10901 - Introduction To Unmanned Aerial System Operations
- AT 11901 - Unmanned Aerial Systems: Safety And Risk Management
- AT 20900 - Civilian Unmanned Aerial Systems
- AT 21900 - Unmanned Aerial Systems Design, Build, Test
- AT 30901 - Introduction To UAS Sensor Technology

Note

This minor is available only to students in the School of Aviation and Transportation Technology.

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School of Construction Management Technology

Overview

Purdue University's School of Construction Management Technology offers a bachelor's degrees accredited by the American Council for Construction Education, awarded for the high level of educational experience and quality provided. One of the strengths of the program comes from the hands-on learning that provides applicable experience in a real-world environment. A part of this experience comes from the minimum 800 hours of construction experience that each undergraduate student is required to complete prior to graduation. Because of its history and leadership within the industry, the school benefits from an extensive list of industry partners.

Faculty

School of Construction Management Technology Website

Contact Information

Building Construction Management Department

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

Graduate Information

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

Baccalaureate

Construction Management, BS

About the Program

From the world's tallest building to the home being constructed down the block, all construction projects need leadership and management expertise. In Purdue's construction management program, you'll gain skills to be a leader in the growing global construction industry. You'll learn what it takes to successfully build all kinds of projects from idea to completion. The curriculum can prepare you to be a future executive in this increasingly fast-paced and high-tech sector.

SCMT offers students the opportunity to complete a bachelor's degree in construction management technology in three years, allowing students to enter the work force or graduate school a year earlier than traditional plans of study. For more information about the degree-in-3 reach out to the CM major advisors.

Accredited by the American Council for Construction Education (ACCE)

Construction Management Website

Construction Management Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (61 credits)

- CM 10000 - Introduction To Construction Management
- CM 11000 - Construction OSHA Ten-Hour Certification
- CM 15000 - Construction Management Fundamentals
- CM 20000 - Intermediate Pre-Construction Management
- CM 21000 - Construction Management Portfolio I
- CM 25000 - Intermediate Construction Management
- CM 30000 - Advanced Pre-Construction Management
- CM 35000 - Advanced Construction Management
- CM 39000 - Construction Work Experience I
- CM 40000 - Construction Capstone I
- CM 41000 - Construction Management Portfolio II
- CM 45000 - Construction Capstone II
- CM 49000 - Construction Work Experience II

Other Departmental/Program Course Requirements (48 credits)

- CGT 16400 - Graphics For Civil Engineering And Construction ♦
- ECON 21000 - Principles Of Economics (satisfies Human Cultures Behavioral/Social Science selective for core) or
- AGEC 21700 - Economics (satisfies Human Cultures Behavioral/Social Science selective 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 21200 - Business Accounting ♦
- MGMT 45500 - Legal Background For Business I ♦
- PHYS 22000 - General Physics ♦ (satisfies Science for core)
- TECH 12000 - Design Thinking In Technology ♦ (satisfies Information Literacy Selective as well as the Science, Technology and Society Selective for core)
  Written Communication Selective
- ENGL 10600 - First-Year Composition (satisfies Written Communication for core) or
- ENGL 10800 - Accelerated First-Year Composition (satisfies Written Communication for core) or
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity (satisfies Written Communication for core)
  Oral Communication Selective
- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core) or
- EDPS 31500 - Collaborative Leadership: Interpersonal Skills (satisfies Oral Communication for core) or
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World (satisfies Oral Communication for core)
- Advanced Communication/English Selective - Credit Hours: 3.00 (See CM list)

- Business Selective - Credit Hours: 3.00 (see CM list)
- Global Selective - 3:00 (see CM list)
- Human Cultures: Humanities Selective (satisfies Human Cultures Humanities for core) - Credit Hours: 3.00
- Management Selective - Credit Hours: 3.00 (see CM list)
- Science Lab Selective (satisfies second Science Selective for core) - Credit Hours: 3.00
- Intercultural Requirement - Credit Hours: 0.00

Additional Degree Requirements

Click here for Construction Management Supplemental Information.

Electives (11 credits)

Any course, any subject

Concentration Requirement

Students will be required to choose an area of concentration prior to taking CM 40000.

Within CM courses, all students will be exposed to each of the concentration areas to gain insight before selecting their concentration (though students are permitted to select a concentration area any time). The student's capstone project in CM 40000 and CM 45000 will focus on the student's area of concentration.

Students are only allowed to select ONE concentration area:

- Commercial Construction Management
- Demolition & Restoration Management in the Built Environment
- Healthcare Construction Management
- Mechanical & Electrical Construction Management
- Residential Construction Management

University Requirements

University Core Requirements

For a complete listing of University Core Course Selectives, visit the <u>Provost's Website</u>**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Civics Literacy Proficiency Requirement:

The Civics Literacy Proficiency activities are designed to develop civic knowledge of Purdue students in an effort to graduate a more informed citizenry.

Students will complete the Proficiency by passing a test of civic knowledge, and completing <u>one of three</u> paths:

- Attending six approved civics-related events and completing an assessment for each; or
- Completing 12 podcasts created by the Purdue Center for C-SPAN Scholarship and Engagement that use C-SPAN material and completing an assessment for each; or
- Earning a passing grade for one of **these approved courses** (or transferring in approved AP or departmental credit in lieu of taking a course)
  For more information visit the Civics Literacy Proficiency **website.**

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- CM 10000 - Introduction To Construction Management
- CGT 16400 - Graphics For Civil Engineering And Construction ♦
- MA 15800 - Precalculus- Functions And Trigonometry
- TECH 12000 - Design Thinking In Technology ♦
- ENGL 10600 - First-Year Composition or
- ENGL 10800 - Accelerated First-Year Composition or
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity

14 Credits

Spring 1st Year

- CM 15000 - Construction Management Fundamentals
- CM 11000 - Construction OSHA Ten-Hour Certification
- MA 16010 - Applied Calculus I
- Management Selective - Credit Hours: 3.00
- COM 11400 - Fundamentals Of Speech Communication or
- EDPS 31500 - Collaborative Leadership: Interpersonal Skills or
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World

16 Credits

Fall 2nd Year

- CM 20000 - Intermediate Pre-Construction Management
- MGMT 21200 - Business Accounting ♦
- PHYS 22000 - General Physics ♦

16 Credits

Spring 2nd Year

- CM 25000 - Intermediate Construction Management
- CM 21000 - Construction Management Portfolio I
- Human Cultures: Humanities Selective - Credit Hours: 3.00
- Laboratory Science selective - Credit Hours: 3.00

15.5 Credits

Fall 3rd Year

- CM 30000 - Advanced Pre-Construction Management
- Business Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Spring 3rd Year

- CM 35000 - Advanced Construction Management
- CM 39000 - Construction Work Experience I
- MGMT 45500 - Legal Background For Business I ♦
- Elective - Credit Hours: 3.00

16 Credits

Fall 4th Year

- CM 40000 - Construction Capstone I
- ECON 21000 - Principles Of Economics or
- AGEC 21700 - Economics
- Advanced Communication/English Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Spring 4th Year

- CM 45000 - Construction Capstone II
- CM 49000 - Construction Work Experience II
- CM 41000 - Construction Management Portfolio II
- Elective - Credit Hours: 2.00
- Global Selective - Credit Hours: 3.00

12.5 Credits

Notes

- "C-" or better is required in all CM courses.
- Pass/No Pass may be allowed for CM 2100 and 41000 and Electives only.
- 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).

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

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

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Design and Construction Integration, BS

Increased project complexity and owner's expectations, collaborative delivery methods and ever changing technology in the Architecture, Engineering and Construction (AEC) industry has stressed the need for more collaboration between different stakeholders. The Design and Construction Integration Major focuses on the management of the design and construction process through collaboration of different parties. Graduates of the major are expected to act as liason between different construction stakeholders, such as designers, contractors and owners. The major is conceptualized to have a core in construction management and supporting courses that provide students with a fundamental understanding of the design process (from within and outside the Purdue Polytechnic Institute).

School of Construction Management Technology

Design and Construction Integration Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (60 credits)

Required Major Courses (60 credits)

- CM 10000 - Introduction To Construction Management
- CM 11000 - Construction OSHA Ten-Hour Certification
- CM 15000 - Construction Management Fundamentals
- CM 20000 - Intermediate Pre-Construction Management
- CM 23301 - Mechanical, Electrical And Piping Systems In The Built Environment
- CM 21000 - Construction Management Portfolio I
- CM 33000 - Design And Construction I
- CM 39000 - Construction Work Experience I
- CM 30000 - Advanced Pre-Construction Management
- CM 33100 - Design And Construction II
- CM 40000 - Construction Capstone I
- CM 41000 - Construction Management Portfolio II
- CM 43300 - Risk Management And Legal Issues In Design And Construction Integration
- CM 45000 - Construction Capstone II
- CM 49000 - Construction Work Experience II

Other Departmental Course Requirements (58 credits)

- CGT 26200 - Introduction To Construction Graphics ♦
- CGT 36000 - Applications Of Construction Documentation I ♦
- MA 15800 - Precalculus- Functions And Trigonometry (satisfies Quantitative Reasoning Selective for core)
- MA 16010 - Applied Calculus I
- MGMT 21200 - Business Accounting ♦
- MGMT 45500 - Legal Background For Business I ♦
- PHYS 22000 - General Physics ♦ (satisfies Science for core)
- TECH 12000 - Design Thinking In Technology ♦ (satisfies Information Literacy Selective as well as the Science, Technology and Society Selective for core)
- CM 33200 - Architectural Design, Construction Techniques And Society or
- AD 28000 - Human Behavior And Designed Environment
- CM 51000 - Topics In Environmentally Sustainable Construction, Design And Development or
- AD 39700 - Sustainability In The Built Environment
- ECON 21000 - Principles Of Economics (satisfies Human Cultures Behavioral/Social Science selective for core) or
- AGEC 21700 - Economics (satisfies Human Cultures Behavioral/Social Science selective for core)
  Written Communication Selective
- ENGL 10600 - First-Year Composition (satisfies Written Communication for core) or
- ENGL 10800 - Accelerated First-Year Composition (satisfies Written Communication for core) or
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity (satisfies Written Communication for core)
  Oral Communication Selective
- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core) or

- EDPS 31500 - Collaborative Leadership: Interpersonal Skills (satisfies Oral Communication for core) or
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World (satisfies Oral Communication for core)
  Business Selective
- IET 23500 - Introduction To Lean And Sustainable Systems or
- IET 31600 - Statistical Quality Control or
- STAT 22500 - Introduction To Probability Models or
- STAT 30100 - Elementary Statistical Methods
- Foreign Language Requirement (satisfies Humanities for core) - Credit Hours: 3.00 (see DCI list)
- Design Selctive I - Credit Hours: 3:00 (see DCI llist)
- Design Selective II - Creidt Hours: 3:00 (see DCI list)
- Management Selective - Credit Hours: 3.00 (see DCI list)
- Science Lab Selective (satisfies second Science Selective for core) - Credit Hours: 3.00
- Intercultural Requirement - Credit Hours: 0.00

Additional Degree Requirements

Design and Construction Integration Supplemental Information.

Electives (2 credits)

- Electives (any course, any subject) - Credit Hours: 4.00

University Requirements

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website.

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Civics Literacy Proficiency Requirement:

The Civics Literacy Proficiency activities are designed to develop civic knowledge of Purdue students in an effort to graduate a more informed citizenry.

Students will complete the Proficiency by passing a test of civic knowledge, and completing one of three paths:

- Attending six approved civics-related events and completing an assessment for each; or

- Completing 12 podcasts created by the Purdue Center for C-SPAN Scholarship and Engagement that use C-SPAN material and completing an assessment for each; or
- Earning a passing grade for one of **these approved courses** (or transferring in approved AP or departmental credit in lieu of taking a course)

For more information visit the Civics Literacy Proficiency **website.**

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- CM 10000 - Introduction To Construction Management
- CGT 26200 - Introduction To Construction Graphics
- MA 15800 - Precalculus- Functions And Trigonometry
- TECH 12000 - Design Thinking In Technology ♦
- ENGL 10600 - First-Year Composition or
- ENGL 10800 - Accelerated First-Year Composition or
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity

15 Credits

Spring 1st Year

- CM 15000 - Construction Management Fundamentals
- CM 11000 - Construction OSHA Ten-Hour Certification
- MA 16010 - Applied Calculus I
- COM 11400 - Fundamentals Of Speech Communication or
- EDPS 31500 - Collaborative Leadership: Interpersonal Skills or
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World
- Management Selective - Credit Hours: 3.00

16 Credits

Fall 2nd Year

- CM 20000 - Intermediate Pre-Construction Management
- MGMT 21200 - Business Accounting
- CM 23301 - Mechanical, Electrical And Piping Systems In The Built Environment

15 Credits

Spring 2nd Year

- CM 33000 - Design And Construction I
- CM 21000 - Construction Management Portfolio I
- CGT 36000 - Applications Of Construction Documentation I ♦
- Foreign Language selective - Credit Hours: 3.00
- PHYS 22000 - General Physics ♦

16.5 Credits

Fall 3rd Year

- CM 30000 - Advanced Pre-Construction Management
- CM 39000 - Construction Work Experience I
- Design Selective - Credit Hours: 3.00
- CM 33200 - Architectural Design, Construction Techniques And Society or
- AD 28000 - Human Behavior And Designed Environment

16 Credits

Spring 3rd Year

- CM 33100 - Design And Construction II
- ECON 21000 - Principles Of Economics or
- AGEC 21700 - Economics
- IET 23500 - Introduction To Lean And Sustainable Systems or
- IET 31600 - Statistical Quality Control or
- STAT 22500 - Introduction To Probability Models or
- STAT 30100 - Elementary Statistical Methods
  Lab Science Selective - Credit Hours: 3.00

15 Credits

Fall 4th Year

- CM 40000 - Construction Capstone I
- CM 43300 - Risk Management And Legal Issues In Design And Construction Integration
- CM 49000 - Construction Work Experience II
- CM 51000 - Topics In Environmentally Sustainable Construction, Design And Development or
- AD 39700 - Sustainability In The Built Environment
- Free Elective - Credit Hours: 2.00

14 Credits

Spring 4th Year

- CM 45000 - Construction Capstone II
- CM 41000 - Construction Management Portfolio II
  Design Selective - Credit Hours: 3.00
- MGMT 45500 - Legal Background For Business I ♦

12.5 Credits

Notes

- "C-" or better is required in all CM courses.
- Pass/No Pass may be allowed for CM 2100 and 41000 and Electives only.
- 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).

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

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Minor

Construction Management Minor

The CM 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.

Requirements for the Minor (16 credits)

Required Courses (16 credits)

- CM 11000 - Construction OSHA Ten-Hour Certification
- CM 15000 - Construction Management Fundamentals
- CM 20000 - Intermediate Pre-Construction Management or
- CM 25000 - Intermediate Construction Management

Notes

- All CM courses require a C- or higher.
- CGT 16400 or CGT 26200 or an approved equivalent course is a pre-requsite to CM 20000 and CM 25000.
- CM 15000 and CM 11000 must be taken concurrently unless permitted otherwise.
- Course registration will be controlled by the School of Construction Management.
- Some CM minor courses may require an override from a CM advisor.
- Most CM core courses are only open to CM majors.
- All Non-CM majors can enroll in CM 10000, although this course is not required for the minor.
- All CM 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 CM coursework while enrolled in the CM minor.
- Space in CM courses is not guaranteed.
- Space in some CM courses might not be available until open enrollment.

- Successful completion of the CM Minor **does not guarantee** admissions into the PICM-BS program.
- Students are subject to dismissal from this minor if they receive a failing grade in any CM course.

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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, network engineering technology, systems analysis and design, and cyber security focus software development, systems integration, data management, and computer networks.

Faculty (website)

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, BS

About the Program

The Computer and Information Technology major is part of the Computer and Information Technology program. The Computer and Information Technology program is accredited by the Computing Accreditation Commission of ABET, www.abet.org.

As computers find their way into every part of our lives, information technology professionals are needed to keep the systems functioning and the data safe. Your information technology courses and problem-solving skills will prepare you for careers in almost any industry. You'll learn how to increase efficiencies as you work with computer applications, management information systems, databases, and computer networks. Computer and information technology courses provide students with strong technical skills, a thorough understanding of business needs, and the ability to communicate effectively with customers, peers, and industry leaders.

Computer and Information Technology Website

Computer and Information Technology Department Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (51 credits)

Computer and Information Technology Required Major Courses (33 credits)

- CNIT 15501 - Introduction To Software Development Concepts (minimum grade of C-)
- CNIT 17600 - Information Technology Architectures (satisfies Informational Literacy for core) (minimum grade of C-)
- CNIT 18000 - Introduction To Systems Development (Gateway to CIT)(minimum grade of C-)
- CNIT 24200 - System Administration
- CNIT 25501 - Object-Oriented Programming Introduction (minimum grade of C-)
- CNIT 27000 - Cybersecurity Fundamentals
- CNIT 27200 - Database Fundamentals (minimum grade of C-)
- CNIT 28000 - Systems Analysis And Design Methods (minimum grade of C-)
- CNIT 32000 - Policy, Regulation, And Globalization In Information Technology
- CNIT 37200 - Database Programming or
- CNIT 39200 - Enterprise Data Management
- CNIT 48000 - Managing Information Technology Projects

Programming Selective (3 credits)

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

Information Technology Selectives (15 credits)

At least nine credits must be CNIT courses.

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

Other Departmental/Program Course Requirements (66 credits)

Composition Selective
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity or
- ENGL 10600 - First-Year Composition or
- ENGL 10800 - Accelerated First-Year Composition (satisfies Written Communication for core) or
- HONR 19903 - Interdisciplinary Approaches In Writing (satisfies Written Communication for core)

Oral Communication Selective
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World or
- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core)
- TECH 12000 - Design Thinking In Technology ♦ (satisfies Information Literacy and Science, Technology & Society Selective for core)
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
- MA 16020 - Applied Calculus II (satisfies Quantitative Reasoning for core)
- TLI 11200 - Foundations Of Organizational Leadership

Communications Selective
- COM 21000 - Debating Public Issues or
- COM 21200 - Approaches To The Study Of Interpersonal Communication or
- COM 22400 - Communicating In The Global Workplace or
- COM 25100 - Communication, Information, And Society or
- COM 31400 - Advanced Presentational Speaking or
- COM 31800 - Principles Of Persuasion or
- COM 32400 - Introduction To Organizational Communication

Economics Selective
- AGEC 21700 - Economics or
- ECON 21000 - Principles Of Economics (Credit cannot be earned for both AGEC 21700 and ECON 21000) or
- ECON 25100 - Microeconomics or
- ECON 25200 - Macroeconomics

Accounting Selective
- MGMT 20000 - Introductory Accounting or
- MGMT 21200 - Business Accounting

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

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

Professional Writing Selective
- ENGL 41900 - Multimedia Writing or
- ENGL 42000 - Business Writing or
- ENGL 42100 - Technical Writing or
- ENGL 42400 - Writing For High Technology Industries

General Business Selective
- IET 11100 - Introduction To Manufacturing And Supply Chain Systems ♦ or

- TLI 15200 - Business Principles For Organizational Leadership ♦
- Science Selective - Credit Hours: 3.00 (satisfies Science for core)
- Lab Science Selective - Credit Hours: 3.00 (satisfies Science for core)
- Interdisciplinary Selective - Credit Hours: 15.00
- Humanities Selective- Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core)
- Behavioral/Social Science Foundational Selective - Credit Hours: 3.00 (satisfies Human Cultures: Behavioral/Social Science for core)
- IT Professional Experience Requirement - Credit Hours: 0.00
- Globalization Requirement - Credit Hours: 0.00

Additional Degree Requirements

Click here for Computer and Information Technology Supplemental Information.

Elective (3 credits)

- Elective (non-remedial course) - Credit Hours: 3.00

University Requirements

University Core Requirements

For a complete listing of University Core Course Selectives, visit the <u>Provost's Website</u>**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Civics Literacy Proficiency Requirement:

The Civics Literacy Proficiency activities are designed to develop civic knowledge of Purdue students in an effort to graduate a more informed citizenry.

Students will complete the Proficiency by passing a test of civic knowledge, and completing <u>one of three</u> paths:

- Attending six approved civics-related events and completing an assessment for each; or
- Completing 12 podcasts created by the Purdue Center for C-SPAN Scholarship and Engagement that use C-SPAN material and completing an assessment for each; or
- Earning a passing grade for one of **these approved courses** (or transferring in approved AP or departmental credit in lieu of taking a course)
  For more information visit the Civics Literacy Proficiency **website.**

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- CNIT 18000 - Introduction To Systems Development
- TLI 11200 - Foundations Of Organizational Leadership
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity or
- ENGL 10600 - First-Year Composition or
- ENGL 10800 - Accelerated First-Year Composition or
- HONR 19903 - Interdisciplinary Approaches In Writing
- MA 16010 - Applied Calculus I
- TECH 12000 - Design Thinking In Technology ♦

15 Credits

Spring 1st Year

- CNIT 15501 - Introduction To Software Development Concepts
- CNIT 17600 - Information Technology Architectures
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World or
- COM 11400 - Fundamentals Of Speech Communication
- MA 16020 - Applied Calculus II
- Behavioral/Social Sciences Foundational Selective - Credit Hours: 3.00

15 Credits

Fall 2nd Year

- CNIT 27200 - Database Fundamentals
- CNIT 28000 - Systems Analysis And Design Methods
- CNIT 24200 - System Administration
- IET 11100 - Introduction To Manufacturing And Supply Chain Systems ♦ or
- TLI 15200 - Business Principles For Organizational Leadership ♦
- Science Selective - Credit Hours: 3.00

15 Credits

Spring 2nd Year

- CNIT 25501 - Object-Oriented Programming Introduction
- CNIT 27000 - Cybersecurity Fundamentals
- COM 21000 - Debating Public Issues or
- COM 21200 - Approaches To The Study Of Interpersonal Communication or
- COM 22400 - Communicating In The Global Workplace or
- COM 25100 - Communication, Information, And Society 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 ♦
- STAT 22500 - Introduction To Probability Models or
- STAT 30100 - Elementary Statistical Methods or
- STAT 50100 - Experimental Statistics I or
- STAT 51100 - Statistical Methods
- Lab Science Selective - Credit Hours: 3.00

15 Credits

Fall 3rd Year

- CNIT 31500 - Systems Programming or
- CNIT 32500 - Object-Oriented Application Development
- MGMT 20000 - Introductory Accounting or
- MGMT 21200 - Business Accounting
- COM 31500 - Speech Communication Of Technical Information ♦ or
- COM 32000 - Small Group Communication or
- COM 32500 - Interviewing: Principles And Practice or
- COM 41500 - Discussion Of Technical Problems ♦
- AGEC 21700 - Economics or
- ECON 21000 - Principles Of Economics or
- ECON 25100 - Microeconomics or
- ECON 25200 - Macroeconomics
- Information Technology Selective [12] - Credit Hours: 3.00

15 Credits

Spring 3rd Year

- CNIT 32000 - Policy, Regulation, And Globalization In Information Technology
- CNIT 37200 - Database Programming or
- CNIT 39200 - Enterprise Data Management
- ENGL 41900 - Multimedia Writing or

- ENGL 42000 - Business Writing or
- ENGL 42100 - Technical Writing or
- ENGL 42400 - Writing For High Technology Industries
- Information Technology Selective - Credit Hours: 3.00
- Interdisciplinary Selective - Credit Hours: 3.00

15 Credits

Fall 4th Year

- CNIT 48000 - Managing Information Technology Projects
- Interdisciplinary Selective - Credit Hours: 3.00
- Information Technology Selective - Credit Hours: 3.00
- Information Technology Selective - Credit Hours: 3.00
- Humanities Foundational Selective - Credit Hours: 3.00

15 Credits

Spring 4th Year

- Elective - Credit Hours: 3.00
- Information Technology Selective - Credit Hours: 3.00
- Interdisciplinary Selective - Credit Hours: 3.00
- Interdisciplinary Selective - Credit Hours: 3.00
- Interdisciplinary Selective - Credit Hours: 3.00

15 Credits

Notes

- Students must select courses from Computer and Information Technology Supplemental Information.
- Students must earn a C- or better in all CNIT courses that are a prerequisite to another CNIT course
- 120 semester credits listed above are required for the Bachelor of Science degree
- 2.0 Graduation GPA required for Bachelor of Science degree
- 2.0 Graduation GPA in all CNIT courses required for Bachelor of Science degree
- ANY COURSE TAKEN AT PURDUE CAN BE ATTEMPTED NO MORE THAN THREE TIMES (INCLUSIVE OF W, WF, WN, I, and IF)

- Courses with the ♦ are essential for the CIT degree critical path to graduation

- Credit cannot be earned for both AGEC 21700 and ECON 21000 to fulfill degree requirements
- A single course may not fulfill multiple requirements within the CIT BS degree
- Co-Curricular Requirements include the following:
    - Professional IT Experience
    - Globalization requirement

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

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

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Computing Infrastructure and Network Engineering Technology, BS

About the Program

The Network Engineering Technology major is part of the Computer and Information Technology program. The Computer and Information Technology program is accredited by the Computing Accreditation Commission of ABET, www.abet.org.

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

Computer and Information Technology Department Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (60 credits)

Computer and Information Technology Major Courses (54 credits)

- CNIT 15501 - Introduction To Software Development Concepts (minimum grade of C-)
- CNIT 17600 - Information Technology Architectures (minimum grade of C-)
- CNIT 18000 - Introduction To Systems Development (Gateway to CIT)(minimum grade of C-)
- CNIT 24000 - Data Communications And Networking (minimum grade of C-)
- CNIT 24200 - System Administration (minimum grade of C-)
- CNIT 25501 - Object-Oriented Programming Introduction (minimum grade of C-)

- CNIT 27000 - Cybersecurity Fundamentals
- CNIT 27200 - Database Fundamentals
- CNIT 28000 - Systems Analysis And Design Methods (minimum grade of C-)
- CNIT 31500 - Systems Programming
- CNIT 32000 - Policy, Regulation, And Globalization In Information Technology
- CNIT 34000 - UNIX Administration (minimum grade of C-)
- CNIT 34210 - Storage Area Networking (minimum grade of C-)
- CNIT 34220 - Network Administration (minimum grade of C-)
- CNIT 34500 - Internetwork Design And Implementation (minimum grade of C-)
- CNIT 34600 - Wireless Networks
- CNIT 45500 - Network Security
- CNIT 48000 - Managing Information Technology Projects

Information Technology Selectives (6 credits)

At least three credits must be CNIT courses.

- Any non-required CNIT 30000 level or higher courses, or
- CGT 30000 level or higher courses, or
- EPCS (3 credits) requires CIT faculty approval.

Other Departmental /Program Course Requirements (60 credits)

Composition Selective
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity or
- ENGL 10600 - First-Year Composition or
- ENGL 10800 - Accelerated First-Year Composition or
- HONR 19903 - Interdisciplinary Approaches In Writing ♦ (satisfies Written Communication for core)

Oral Communication Selective
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World or
- COM 11400 - Fundamentals Of Speech Communication ♦ (satisfies Oral Communication for core)
- TECH 12000 - Design Thinking In Technology ♦ (satisfies Information Literacy, Science, Technology, & Society Selectives for core)
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
- MA 16020 - Applied Calculus II (satisfies Quantitative Reasoning for core)
- TLI 11200 - Foundations Of Organizational Leadership ♦

Communications Selective
- COM 21000 - Debating Public Issues or
- COM 21200 - Approaches To The Study Of Interpersonal Communication or
- COM 22400 - Communicating In The Global Workplace or
- COM 25100 - Communication, Information, And Society or
- COM 31400 - Advanced Presentational Speaking or
- COM 31800 - Principles Of Persuasion or
- COM 32400 - Introduction To Organizational Communication

Professional Writing Selective
- ENGL 41900 - Multimedia Writing or
- ENGL 42000 - Business Writing or

- ENGL 42100 - Technical Writing or
- ENGL 42400 - Writing For High Technology Industries
  Professional Speaking Selective
- COM 31500 - Speech Communication Of Technical Information or or
- COM 32000 - Small Group Communication or or
- COM 32500 - Interviewing: Principles And Practice or
- COM 41500 - Discussion Of Technical Problems
  Statistics Selective
- STAT 22500 - Introduction To Probability Models or
- STAT 30100 - Elementary Statistical Methods or
- STAT 50100 - Experimental Statistics I or
- STAT 51100 - Statistical Methods
  Accounting Selective
- MGMT 20000 - Introductory Accounting or
- MGMT 21200 - Business Accounting
  Business Selective
- IET 11100 - Introduction To Manufacturing And Supply Chain Systems ♦ or
- TLI 15200 - Business Principles For Organizational Leadership ♦
  Economics Selective
- AGEC 21700 - Economics or
- ECON 21000 - Principles Of Economics or
- ECON 25100 - Microeconomics or
- ECON 25200 - Macroeconomics

- Interdisciplinary Selective - Credit Hours: 9.00
- Humanities Selective - Credit Hours: 3.00
- Behavioral/Social Science Foundational Selective - Credit Hours: 3.00 (satisfies Human Culture Behavioral/Social Science for core)
- Science Selective - Credit Hours: 3.00 (satisfies Science for core)
- Lab Science Selective - Credit Hours: 3.00 (satisfies Science for core)
- IT Professional Experience Requirement - Credit Hours: 0.00
- Globalization Requirement - Credit Hours: 0.00

Additional Degree Requirements

Click here for Computing Infrastructure and Network Engineering Technology Supplemental Information.

University Requirements

University Core Requirements

For a complete listing of University Core Course Selectives, visit the <u>Provost's Website</u>**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)

- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Civics Literacy Proficiency Requirement:

The Civics Literacy Proficiency activities are designed to develop civic knowledge of Purdue students in an effort to graduate a more informed citizenry.

Students will complete the Proficiency by passing a test of civic knowledge, and completing one of three paths:

- Attending six approved civics-related events and completing an assessment for each; or
- Completing 12 podcasts created by the Purdue Center for C-SPAN Scholarship and Engagement that use C-SPAN material and completing an assessment for each; or
- Earning a passing grade for one of **these approved courses** (or transferring in approved AP or departmental credit in lieu of taking a course)
  For more information visit the Civics Literacy Proficiency **website.**

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- CNIT 18000 - Introduction To Systems Development
- TLI 11200 - Foundations Of Organizational Leadership ♦
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity or
- ENGL 10600 - First-Year Composition or
- ENGL 10800 - Accelerated First-Year Composition or
- HONR 19903 - Interdisciplinary Approaches In Writing ♦
- MA 16010 - Applied Calculus I
- TECH 12000 - Design Thinking In Technology ♦

15 Credits

Spring 1st Year

- CNIT 15501 - Introduction To Software Development Concepts
- CNIT 17600 - Information Technology Architectures
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World or
- COM 11400 - Fundamentals Of Speech Communication ♦
- MA 16020 - Applied Calculus II
- Behavioral/Social Sciences Foundational Selective - Credit Hours: 3.00

15 Credits

Fall 2nd Year

- CNIT 24000 - Data Communications And Networking
- CNIT 25501 - Object-Oriented Programming Introduction
- CNIT 27000 - Cybersecurity Fundamentals
- IET 11100 - Introduction To Manufacturing And Supply Chain Systems ♦ or

- TLI 15200 - Business Principles For Organizational Leadership ♦

- Science Selective - Credit Hours: 3.00

15 Credits

Spring 2nd Year

- CNIT 24200 - System Administration
- CNIT 27200 - Database Fundamentals
- CNIT 28000 - Systems Analysis And Design Methods
- STAT 22500 - Introduction To Probability Models or
- STAT 30100 - Elementary Statistical Methods or
- STAT 50100 - Experimental Statistics I or
- STAT 51100 - Statistical Methods
- Lab Science Selective - Credit Hours: 3.00

15 Credits

Fall 3rd Year

- CNIT 34000 - UNIX Administration
- CNIT 34500 - Internetwork Design And Implementation
- COM 31500 - Speech Communication Of Technical Information or
- COM 32000 - Small Group Communication or
- COM 32500 - Interviewing: Principles And Practice or
- COM 41500 - Discussion Of Technical Problems
- MGMT 20000 - Introductory Accounting or
- MGMT 21200 - Business Accounting
- AGEC 21700 - Economics or
- ECON 21000 - Principles Of Economics or
- ECON 25100 - Microeconomics or
- ECON 25200 - Macroeconomics

16 Credits

Spring 3rd Year

- CNIT 32000 - Policy, Regulation, And Globalization In Information Technology
- CNIT 34210 - Storage Area Networking
- CNIT 34220 - Network Administration
- CNIT 34600 - Wireless Networks
- ENGL 41900 - Multimedia Writing or
- ENGL 42000 - Business Writing or
- ENGL 42100 - Technical Writing or
- ENGL 42400 - Writing For High Technology Industries

14 Credits

Fall 4th Year

- CNIT 45500 - Network Security
- CNIT 48000 - Managing Information Technology Projects
- COM 21000 - Debating Public Issues or
- COM 21200 - Approaches To The Study Of Interpersonal Communication or
- COM 22400 - Communicating In The Global Workplace or
- COM 25100 - Communication, Information, And Society 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
- Interdisciplinary Selective - Credit Hours: 3.00
- Interdisciplinary Selective - Credit Hours: 3.00

15 Credits

Spring 4th Year

- CNIT 31500 - Systems Programming
- Information Technology Selective - Credit Hours: 3.00
- Information Technology Selective - Credit Hours: 3.00
- Interdisciplinary Selective - Credit Hours: 2.00
- Humanities Foundational Selective - Credit Hours: 3.00

15 Credits

Notes

- See Computing Infrastructure and Network Engineering Technology Supplemental Information for courses.
- Students must earn a C- or better in all CNIT courses that are a prerequisite to another CNIT course

- 120 semester credits listed above are required for the Bachelor of Science degree
- 2.0 Graduation GPA required for Bachelor of Science degree
- 2.0 Graduation GPA in all CNIT courses required for Bachelor of Science degree
- ANY COURSE TAKEN AT PURDUE CAN BE ATTEMPTED NO MORE THAN THREE TIMES (INCLUSIVE OF W, WF, WN, I, and IF)
- Courses with the ♦ are essential for the CIT degree critical path to graduation
- Credit cannot be earned for both AGEC 21700 and ECON 21000 to fulfill degree requirements
- A single course may not fulfill multiple requirements within the CIT BS degree
- Co-Curricular Requirements include the following:
  - Professional IT Experience
  - Globalization requirement

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

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

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Cybersecurity, BS

About the Program

The Cybersecurity major is part of the Computer and Information Technology program. The Computer and Information Technology program is accredited by the Computing Accreditation Commission of ABET, www.abet.org.

Keeping data secure is an important goal of any good IT system. Once a system has been breached, personal, financial or classified data becomes vulnerable to exploitation. When you major in cybersecurity at Purdue University, you will learn the skills to create and maintain secure networks as well as ways to track down hackers who aim to breach that security.

The demand for professionals with cybersecurity skills is high, and it will continue to grow as more companies and industries work to safeguard their records and their reputations. The cybersecurity plan of study at Purdue will be able to help meet this need by providing a comprehensive IT education that also emphasizes key security concepts. The major's holistic approach combines skills such as secure coding, cryptography, digital forensics and UNIX fundamentals with analytical thinking and criminology.

You will have plenty of opportunity for hands-on projects. Whether you are testing vulnerabilities or creating a new security protocol, you will put theories into practice daily. Because of industry partnerships, you will have access to internships that will put your cybersecurity knowledge to use quickly.

Cybersecurity Website

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (69 credits)

Computer and Information Technology Required Major Courses (60 credits)

- CNIT 15501 - Introduction To Software Development Concepts (minimum grade of C-)
- CNIT 17600 - Information Technology Architectures (minimum grade of C-)
- CNIT 18000 - Introduction To Systems Development (Gateway to CIT)(minimum grade of C-)
- CNIT 24200 - System Administration (minimum grade of C-)
- CNIT 25501 - Object-Oriented Programming Introduction (minimum grade of C-)
- CNIT 27000 - Cybersecurity Fundamentals (minimum grade of C-)
- CNIT 27100 - System & Organizational Security (minimum grade of C-)
- CNIT 27200 - Database Fundamentals
- CNIT 28000 - Systems Analysis And Design Methods (minimum grade of C-)
- CNIT 34000 - UNIX Administration (minimum grade of C-)
- CNIT 34400 - Network Engineering Fundamentals (minimum grade of C-)
- CNIT 37000 - Introduction To Cryptography
- CNIT 37100 - Cyberlaw And Ethics
- CNIT 42000 - Basic Cyber Forensics
- CNIT 42200 - Cyber Criminology
- CNIT 45500 - Network Security (minimum grade of C-)
- CNIT 47000 - Incident Response Management
- CNIT 47100 - Vulnerability Analysis And Testing
- CNIT 48000 - Managing Information Technology Projects
  Infrastructure Administration Selective
- CNIT 34220 - Network Administration and
- CNIT 34010 - UNIX Fundamentals (minimum grade of C-)

Cybersecurity Selectives (9 credits)

- CNIT 41500 - Advanced Coding Security
- CNIT 42100 - Small Scale Digital Device Forensics
- CNIT 45600 - Wireless Security And Management
- CNIT 51100 - Foundations In Homeland Security Studies
- CNIT 51200 - Managing Resources And Applications For Homeland Security
- CNIT 32200 - Research Methodology And Design

Other Departmental /Program Course Requirements (51 credits)

- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)

- MA 16020 - Applied Calculus II (satisfies Quantitative Reasoning for core)
Composition Selective
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity or
- ENGL 10600 - First-Year Composition or
- ENGL 10800 - Accelerated First-Year Composition or
- HONR 19903 - Interdisciplinary Approaches In Writing (satisfies Written Communication for core)
Oral Communication Selective
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World or
- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core)
- TECH 12000 - Design Thinking In Technology ♦ (satisfies Information Literacy and Science, Technology, & Society Selectives for core)
Communication Selective
- COM 21000 - Debating Public Issues or
- COM 21200 - Approaches To The Study Of Interpersonal Communication or
- COM 22400 - Communicating In The Global Workplace or
- COM 25100 - Communication, Information, And Society or
- COM 31400 - Advanced Presentational Speaking or
- COM 31800 - Principles Of Persuasion or
- COM 32400 - Introduction To Organizational Communication
Economics Selective
- AGEC 21700 - Economics or
- ECON 21000 - Principles Of Economics or
- ECON 25100 - Microeconomics or
- ECON 25200 - Macroeconomics
Accounting Selective
- MGMT 20000 - Introductory Accounting or
- MGMT 21200 - Business Accounting
Statistics Selective
- STAT 22500 - Introduction To Probability Models or
- STAT 30100 - Elementary Statistical Methods or
- STAT 50100 - Experimental Statistics I or
- STAT 51100 - Statistical Methods
Professional Speaking Selective
- COM 31500 - Speech Communication Of Technical Information or
- COM 32000 - Small Group Communication or
- COM 32500 - Interviewing: Principles And Practice or
- COM 41500 - Discussion Of Technical Problems
Professional Writing Selective
- ENGL 41900 - Multimedia Writing or
- ENGL 42000 - Business Writing or
- ENGL 42100 - Technical Writing
- Science Selective - Credit Hours: 3.00
- Lab Science Selective - Credit Hours: 3.00
- Interdisciplinary Selective - Credit Hours: 6.00
- Humanities 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
- IT Professional Experience Requirement - Credit Hours: 0.00
- Globalization Requirement - Credit Hours: 0.00

Additional Degree Requirements

Click here for Cybersecurity Supplemental Information.

University Requirements

University Core Requirements

For a complete listing of University Core Course Selectives, visit the <u>Provost's Website</u>**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Civics Literacy Proficiency Requirement:

The Civics Literacy Proficiency activities are designed to develop civic knowledge of Purdue students in an effort to graduate a more informed citizenry.

Students will complete the Proficiency by passing a test of civic knowledge, and completing <u>one of three</u> paths:

- Attending six approved civics-related events and completing an assessment for each; or
- Completing 12 podcasts created by the Purdue Center for C-SPAN Scholarship and Engagement that use C-SPAN material and completing an assessment for each; or
- Earning a passing grade for one of **these approved courses** (or transferring in approved AP or departmental credit in lieu of taking a course)
  For more information visit the Civics Literacy Proficiency **website.**

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- CNIT 18000 - Introduction To Systems Development
- CNIT 17600 - Information Technology Architectures ♦
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity or
- ENGL 10600 - First-Year Composition or
- ENGL 10800 - Accelerated First-Year Composition or

- HONR 19903 - Interdisciplinary Approaches In Writing
- MA 16010 - Applied Calculus I
- TECH 12000 - Design Thinking In Technology ♦

15 Credits

Spring 1st Year

- CNIT 15501 - Introduction To Software Development Concepts
- CNIT 27000 - Cybersecurity Fundamentals
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World or
- COM 11400 - Fundamentals Of Speech Communication
- MA 16020 - Applied Calculus II
- Behavioral/Social Sciences Foundational Selective - Credit Hours: 3.00

15 Credits

Fall 2nd Year

- CNIT 25501 - Object-Oriented Programming Introduction
- CNIT 27100 - System & Organizational Security
- AGEC 21700 - Economics or
- ECON 21000 - Principles Of Economics or
- ECON 25100 - Microeconomics or
- ECON 25200 - Macroeconomics
- Humanities Foundational Selective - Credit Hours: 3.00
- Science Selective - Credit Hours: 3.00

15 Credits

Spring 2nd Year

- CNIT 24200 - System Administration
- CNIT 27200 - Database Fundamentals
- CNIT 28000 - Systems Analysis And Design Methods
- STAT 22500 - Introduction To Probability Models or
- STAT 30100 - Elementary Statistical Methods or
- STAT 50100 - Experimental Statistics I or
- STAT 51100 - Statistical Methods
- Lab Science Selective - Credit Hours: 3.00

15 Credits

Fall 3rd Year

- CNIT 34000 - UNIX Administration
- CNIT 34400 - Network Engineering Fundamentals
- CNIT 37000 - Introduction To Cryptography
- COM 21000 - Debating Public Issues or
- COM 21200 - Approaches To The Study Of Interpersonal Communication or
- COM 22400 - Communicating In The Global Workplace or
- COM 25100 - Communication, Information, And Society 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
- Interdisciplinary Selective - Credit Hours: 3.00

16 Credits

Spring 3rd Year

- CNIT 37100 - Cyberlaw And Ethics
- CNIT 42000 - Basic Cyber Forensics
- CNIT 34220 - Network Administration
- CNIT 34010 - UNIX Fundamentals
- MGMT 20000 - Introductory Accounting or
- MGMT 21200 - Business Accounting
- Cybersecurity Selective- Credit Hours: 3.00

14 Credits

Fall 4th Year

- CNIT 45500 - Network Security
- CNIT 47000 - Incident Response Management
- COM 31500 - Speech Communication Of Technical Information or
- COM 32000 - Small Group Communication or
- COM 32500 - Interviewing: Principles And Practice or
- COM 41500 - Discussion Of Technical Problems
- Cybersecurity Selective - Credit Hours: 3.00
- Interdisciplinary Selective - Credit Hours: 3.00

15 Credits

Spring 4th Year

- CNIT 42200 - Cyber Criminology
- CNIT 47100 - Vulnerability Analysis And Testing
- CNIT 48000 - Managing Information Technology Projects

- ENGL 41900 - Multimedia Writing or
- ENGL 42000 - Business Writing or
- ENGL 42100 - Technical Writing
- Cybersecurity Selective - Credit Hours: 3.00

15 Credits

Notes

- Students must select courses from Cybersecurity Supplemental Information.
- Students must earn a C- or better in all CNIT courses that are a prerequisite to another CNIT course
- 120 semester credits listed above are required for the Bachelor of Science degree
- 2.0 Graduation GPA required for Bachelor of Science degree
- 2.0 Graduation GPA in all CNIT courses required for Bachelor of Science degree
- ANY COURSE TAKEN AT PURDUE CAN BE ATTEMPTED NO MORE THAN THREE TIMES (INCLUSIVE OF W, WF, WN, I, and IF)
- Courses with the ♦ are essential for the CIT degree critical path to graduation
- Credit cannot be earned for both AGEC 21700 and ECON 21000 to fulfill degree requirements
- A single course may not fulfill multiple requirements within the CIT BS degree
- Co-Curricular Requirements include the following:
  - Professional IT Experience
  - Globalization requirement

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

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

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Data Analytics, Technologies, and Applications, BS

About the Program

Data and information have infiltrated every facet of our lives. The successful development of solutions to leverage data and information for decision making purposes requires a myriad of skills and abilities including capabilities provided by information technology professionals to enable and support data analytics and applications in their respective organizations. In the Data Analytics, Technologies, and Applications (DATA) major, students will a) develop strong foundations in statistical and machine

learning techniques, b) apply analytics approaches, techniques, and tools to solve problems, and c) evaluate such approaches, techniques, and tools for effective use.

Computer and Information Technology Website

Computer and Information Technology Department Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (66 credits)

Computer and Information Technology Core Courses (27 credits)

- CNIT 15501 - Introduction To Software Development Concepts
- CNIT 17600 - Information Technology Architectures
- CNIT 18000 - Introduction To Systems Development
- CNIT 24200 - System Administration
- CNIT 25501 - Object-Oriented Programming Introduction
- CNIT 27000 - Cybersecurity Fundamentals
- CNIT 28000 - Systems Analysis And Design Methods
- CNIT 32000 - Policy, Regulation, And Globalization In Information Technology
- CNIT 48000 - Managing Information Technology Projects

DATA Core Courses (21 credits)

- CNIT 27200 - Database Fundamentals
- CNIT 32200 - Research Methodology And Design
- CNIT 37200 - Database Programming
- CNIT 39200 - Enterprise Data Management
- CNIT 48200 - Six Sigma Data Quality For Continuous Improvement
- CNIT 48300 - Applied Machine Learning
- CNIT 48400 - Applications In Data Science

Cognate Application Focus Area (18 credits)

18 credits outside of CNIT satisfying one of the following options:

1. Completion of Statistics Minor and 9 credit hours in Application Focus area of the Applications in Data Science Certificate

2. Completion of 18 credits from the Application Focus area of the Applications in Data Science Certificate

Other Departmental/Program Course Requirements (51 credits)

- MA 16010 - Applied Calculus I
- MA 16020 - Applied Calculus II
- TECH 12000 - Design Thinking In Technology ♦

Composition Selective:
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity or
- ENGL 10600 - First-Year Composition or
- ENGL 10800 - Accelerated First-Year Composition or
- HONR 19903 - Interdisciplinary Approaches In Writing

Oral Communication Selective:
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World or
- COM 11400 - Fundamentals Of Speech Communication

Communications Selective:
- COM 21000 - Debating Public Issues or
- COM 21200 - Approaches To The Study Of Interpersonal Communication or
- COM 22400 - Communicating In The Global Workplace or
- COM 25100 - Communication, Information, And Society or
- COM 31400 - Advanced Presentational Speaking or
- COM 31800 - Principles Of Persuasion or
- COM 32400 - Introduction To Organizational Communication

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

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

Accounting Selective:
- MGMT 20000 - Introductory Accounting or
- MGMT 21200 - Business Accounting

Ethics Selective:
- PHIL 20700 - Ethics For Technology, Engineering, And Design ♦ or
- PHIL 20800 - Ethics Of Data Science ♦

Probabilities Selective:
- STAT 22500 - Introduction To Probability Models ♦ or
- STAT 31100 - Introductory Probability ♦ or
- STAT 41600 - Probability ♦

Statistics Selective:
- STAT 30100 - Elementary Statistical Methods ♦ or

- STAT 35000 - Introduction To Statistics ♦ or
- STAT 50100 - Experimental Statistics I ♦ or
- STAT 51100 - Statistical Methods ♦

  Professional Writing Selective:
- ENGL 41900 - Multimedia Writing or
- ENGL 42000 - Business Writing or
- ENGL 42100 - Technical Writing or
- ENGL 42400 - Writing For High Technology Industries

- Science Selective (satisfies Science #1 for core) - Credit Hours: 3.00
- Lab Science Selective (satisfies Science #2 for core) - Credit Hours: 3.00
- Human Cultures: Behavioral/Social Sciences Selective - Credit Hours: 3.00 (satisfies Human Cultures: Behavioral/Social Sciences for core)
- Human Cultures: Humanities Selective - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core)
- Professional IT Experience - Credit Hours: 0.00
- Globalization - Credit Hours: 0.00

Additional Requirements

Data Analytics, Technologies, and Applications Supplemental Information

Electives (3 credits)

University Requirements

University Core Requirements

For a complete listing of University Core Course Selectives, visit the <u>Provost's Website</u>.

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Civics Literacy Proficiency Requirement:

The Civics Literacy Proficiency activities are designed to develop civic knowledge of Purdue students in an effort to graduate a more informed citizenry.

Students will complete the Proficiency by passing a test of civic knowledge, and completing <u>one of three</u> paths:

- Attending six approved civics-related events and completing an assessment for each; or
- Completing 12 podcasts created by the Purdue Center for C-SPAN Scholarship and Engagement that use C-SPAN material and completing an assessment for each; or
- Earning a passing grade for one of **these approved courses** (or transferring in approved AP or departmental credit in lieu of taking a course)

  For more information visit the Civics Literacy Proficiency **website.**

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- CNIT 18000 - Introduction To Systems Development
- MA 16010 - Applied Calculus I

- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity or
- ENGL 10600 - First-Year Composition or
- ENGL 10800 - Accelerated First-Year Composition or
- HONR 19903 - Interdisciplinary Approaches In Writing

- TECH 12000 - Design Thinking In Technology ♦
- Human Cultures: Behavioral/Social Sciences Selective - Credit Hours: 3.00

15 Credits

Spring 1st Year

- CNIT 15501 - Introduction To Software Development Concepts
- CNIT 17600 - Information Technology Architectures

- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World or
- COM 11400 - Fundamentals Of Speech Communication

- MA 16020 - Applied Calculus II
- Science Selective Credit Hours: 3.00

15 Credits

Fall 2nd Year

- CNIT 24200 - System Administration
- CNIT 27200 - Database Fundamentals
- CNIT 28000 - Systems Analysis And Design Methods

- Lab Science Selective - Credit Hours: 3.00
- Communication Selective - Credit Hours: 3.00

15 Credits

Spring 2nd Year

- CNIT 25501 - Object-Oriented Programming Introduction
- CNIT 27000 - Cybersecurity Fundamentals
- CNIT 39200 - Enterprise Data Management

- STAT 30100 - Elementary Statistical Methods ♦ or
- STAT 35000 - Introduction To Statistics ♦ or
- STAT 50100 - Experimental Statistics I ♦ or
- STAT 51100 - Statistical Methods ♦

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

15 Credits

Fall 3rd Year

- CNIT 32200 - Research Methodology And Design
- CNIT 37200 - Database Programming

- STAT 22500 - Introduction To Probability Models ♦ or
- STAT 31100 - Introductory Probability ♦ or
- STAT 41600 - Probability ♦

- ENGL 41900 - Multimedia Writing or
- ENGL 42000 - Business Writing or
- ENGL 42100 - Technical Writing or
- ENGL 42400 - Writing For High Technology Industries
- Cognate Application Concentration - Credit Hours: 3.00

15 Credits

Spring 3rd Year

- CNIT 32000 - Policy, Regulation, And Globalization In Information Technology
- CNIT 48200 - Six Sigma Data Quality For Continuous Improvement

- MGMT 20000 - Introductory Accounting or

- MGMT 21200 - Business Accounting

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

  Cognate Application Concentration - Credit Hours: 3.00

15 Credits

Fall 4th Year

- PHIL 20700 - Ethics For Technology, Engineering, And Design ♦ or
- PHIL 20800 - Ethics Of Data Science ♦

- CNIT 48000 - Managing Information Technology Projects
- CNIT 48300 - Applied Machine Learning

- Cognate Application Concentration - Credit Hours: 3.00
- Cognate Application Concentration - Credit Hours: 3.00

15 Credits

Spring 4th Year

- CNIT 48400 - Applications In Data Science
- Cognate Application Concentration - Credit Hours: 3.00
- Cognate Application Concentration - Credit Hours: 3.00
- Humanities Foundational Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

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

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Systems Analysis and Design, BS

About the Program

The Systems Analysis and Design major is part of the Computer and Information Technology program. The Computer and Information Technology program is accredited by the Computing Accreditation Commission of ABET, www.abet.org.

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

Computer and Information Technology Department Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (51 credits)

Computer and Information Technology Required Major Courses (39 credits)

- CNIT 15501 - Introduction To Software Development Concepts (minimum grade of C-)
- CNIT 17600 - Information Technology Architectures (minimum grade of C-)
- CNIT 18000 - Introduction To Systems Development (Gateway to CIT)(minimum grade of C-)
- CNIT 24200 - System Administration
- CNIT 25501 - Object-Oriented Programming Introduction (minimum grade of C-)
- CNIT 27000 - Cybersecurity Fundamentals
- CNIT 27200 - Database Fundamentals (minimum grade of C-)
- CNIT 28000 - Systems Analysis And Design Methods (minimum grade of C-)
- CNIT 32000 - Policy, Regulation, And Globalization In Information Technology
- 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 (3 credits)

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

Information Technology Selective (3 credits)

- Any non-required CNIT 30000 level or higher courses

SAAD Selectives (6 credits)

- CNIT 38301 - Packaged Application Software Solutions
- CNIT 38501 - Advanced Systems Design And Integration
- CNIT 40500 - Software Development Methodologies

Other Departmental /Program Course Requirements (69 credits)

Composition Selective
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity ♦ or
- ENGL 10600 - First-Year Composition ♦ or
- ENGL 10800 - Accelerated First-Year Composition ♦ or
- HONR 19903 - Interdisciplinary Approaches In Writing ♦ (satisfies Written Communication for core)

Oral Communication Selective
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World ♦ or
- 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 and Science, Technology, & Society for core)
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning Selective for core)
- MA 16020 - Applied Calculus II (satisfies Quantitative Reasoning Selective for core)
- TLI 11200 - Foundations Of Organizational Leadership ♦

Communication Selective
- COM 21000 - Debating Public Issues or
- COM 21200 - Approaches To The Study Of Interpersonal Communication or
- COM 22400 - Communicating In The Global Workplace or
- COM 25100 - Communication, Information, And Society or
- COM 31400 - Advanced Presentational Speaking or
- COM 31800 - Principles Of Persuasion or
- COM 32400 - Introduction To Organizational Communication

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

Accounting Selective
- MGMT 20000 - Introductory Accounting or
- MGMT 21200 - Business Accounting

Statistics Selective
- STAT 22500 - Introduction To Probability Models or

- STAT 30100 - Elementary Statistical Methods or
- STAT 50100 - Experimental Statistics I or
- STAT 51100 - Statistical Methods
  Professional Speaking Selective
- COM 31500 - Speech Communication Of Technical Information or or
- COM 32000 - Small Group Communication or or
- COM 32500 - Interviewing: Principles And Practice or
- COM 41500 - Discussion Of Technical Problems
  Professional Writing Selective
- ENGL 41900 - Multimedia Writing or
- ENGL 42000 - Business Writing or
- ENGL 42100 - Technical Writing or
- ENGL 42400 - Writing For High Technology Industries
  Business Selective
- IET 11100 - Introduction To Manufacturing And Supply Chain Systems ♦ or
- TLI 15200 - Business Principles For Organizational Leadership ♦
- Science Selective - Credit Hours: 3.00 (satisfies Science #1 for core)
- Lab Science Selective - Credit Hours: 3.00 (satisfies Science #2 for core)
- Interdisciplinary Selective - Credit Hours: 15.00
- Behavioral/Social Science Foundational Selective - Credit Hours: 3.00 (satisfies Human Cultures: Behavioral/Social Science for core)
- Humanities Selective - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core)
- IT Professional Experience Requirement - Credit Hours: 0.00
- Globalization Requirement - Credit Hours: 0.00

Additional Degree Requirements

Click here for Systems Analysis and Design Supplemental Information.

University Requirements

University Core Requirements

For a complete listing of University Core Course Selectives, visit the <u>Provost's Website</u>**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Civics Literacy Proficiency Requirement:

The Civics Literacy Proficiency activities are designed to develop civic knowledge of Purdue students in an effort to graduate a more informed citizenry.

Students will complete the Proficiency by passing a test of civic knowledge, and completing <u>one of three</u> paths:

- Attending six approved civics-related events and completing an assessment for each; or
- Completing 12 podcasts created by the Purdue Center for C-SPAN Scholarship and Engagement that use C-SPAN material and completing an assessment for each; or
- Earning a passing grade for one of **these approved courses** (or transferring in approved AP or departmental credit in lieu of taking a course)
  For more information visit the Civics Literacy Proficiency **website.**

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- CNIT 18000 - Introduction To Systems Development
- TLI 11200 - Foundations Of Organizational Leadership ♦
- MA 16010 - Applied Calculus I
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity ♦ or
- ENGL 10600 - First-Year Composition ♦ or
- ENGL 10800 - Accelerated First-Year Composition ♦ or
- HONR 19903 - Interdisciplinary Approaches In Writing ♦
- TECH 12000 - Design Thinking In Technology ♦

15 Credits

Spring 1st Year

- CNIT 15501 - Introduction To Software Development Concepts
- CNIT 17600 - Information Technology Architectures
- MA 16020 - Applied Calculus II
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World ♦ or
- COM 11400 - Fundamentals Of Speech Communication ♦
- Behavioral/Social Sciences Foundational Selective - Credit Hours: 3.00

15 Credits

Fall 2nd Year

- CNIT 27200 - Database Fundamentals
- CNIT 28000 - Systems Analysis And Design Methods
- CNIT 24200 - System Administration

- PHIL 15000 - Principles Of Logic
- Science Selective - Credit Hours: 3.00 *

15 Credits

Spring 2nd Year

- CNIT 25501 - Object-Oriented Programming Introduction
- CNIT 27000 - Cybersecurity Fundamentals
- STAT 22500 - Introduction To Probability Models or
- STAT 30100 - Elementary Statistical Methods or
- STAT 50100 - Experimental Statistics I or
- STAT 51100 - Statistical Methods
- IET 11100 - Introduction To Manufacturing And Supply Chain Systems ♦ or
- TLI 15200 - Business Principles For Organizational Leadership ♦
- Lab Science Selective - Credit Hours: 3.00

15 Credits

Fall 3rd Year

- CNIT 32000 - Policy, Regulation, And Globalization In Information Technology
- CNIT 31500 - Systems Programming or
- CNIT 32500 - Object-Oriented Application Development
- CNIT 38000 - Advanced Analysis And Design
- AGEC 21700 - Economics or
- ECON 21000 - Principles Of Economics or
- ECON 25100 - Microeconomics or
- ECON 25200 - Macroeconomics
- COM 22400 - Communicating In The Global Workplace or
- COM 25100 - Communication, Information, And Society or
- COM 21000 - Debating Public Issues or
- COM 21200 - Approaches To The Study Of Interpersonal Communication 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

15 Credits

Spring 3rd Year

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

- MGMT 20000 - Introductory Accounting or
- MGMT 21200 - Business Accounting
- COM 31500 - Speech Communication Of Technical Information or
- COM 41500 - Discussion Of Technical Problems or
- COM 32000 - Small Group Communication or
- COM 32500 - Interviewing: Principles And Practice

15 Credits

Fall 4th Year

- ENGL 41900 - Multimedia Writing or
- ENGL 42000 - Business Writing or
- ENGL 42100 - Technical Writing or
- ENGL 42400 - Writing For High Technology Industries
- Interdisciplinary Selective - Credit Hours: 3.00
- Interdisciplinary Selective - Credit Hours: 3.00
- SAAD Selective - Credit Hours: 3.00
- Information Technology Selective - Credit Hours: 3.00

15 Credits

Spring 4th Year

- CNIT 48000 - Managing Information Technology Projects
- SAAD Selective - Credit Hours: 3.00
- Interdisciplinary Selective - Credit Hours: 3.00
- Interdisciplinary Selective - Credit Hours: 3.00
- Humanities Foundational Selective - Credit Hours: 3.00

15 Credits

Notes

- Students must earn a C- or better in all CNIT courses that are a prerequisite to another CNIT course
- 120 semester credits listed above are required for the Bachelor of Science degree
- 2.0 Graduation GPA required for Bachelor of Science degree
- 2.0 Graduation GPA in all CNIT courses required for Bachelor of Science degree
- ANY COURSE TAKEN AT PURDUE CAN BE ATTEMPTED NO MORE THAN THREE TIMES (INCLUSIVE OF W, WF, WN, I, and IF)
- Credit cannot be earned for both AGEC 21700 and ECON 21000 to fulfill degree requirements
- A single course may not fulfill multiple requirements within the CIT BS degree
- Courses with the ♦ are essential for the CIT degree critical path to graduation
- Co-Curricular Requirements include the following:
  - Professional IT Experience
  - Globalization requirement

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

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

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Minor

Computer and Information Technology Minor

Requirements for the Minor (15 credits)

Required Courses (15 credits)

- 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

Notes

- CNIT Selectives are any course that will fulfill a CIT Major required course (Click here for Computer and Information Technology, BS)
- 2.0 GPA in all minor courses
- No course may be taken pass/fail
- Transfer credit, course substitutions, and credit by exam limited to 3.00 credit hours
- The following courses will fulfill the CNIT 15501 requirement:
  a. CNIT 10500, or CNIT 17500 (does not count as substitution)
  b. CS 17700, CS 18000, CGT 21500 or any 3.00 credit programming course at Purdue (counts as a substitution)
- CNIT 13600 cannot be used to fulfill the minor requirements
- Course requisites (pre-requisites, concurrent pre-requisites, and restrictions) must be met
- 30000 level courses require permission from CIT Advisor
- Minors will be accommodated during open registration periods.
- The CIT minor can be attached to any Purdue University major that will accommodate or allow it.

Disclaimer

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

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Department of Computer Graphics Technology

The Department of Computer Graphics Technology touches all aspects of computer graphics, from animation to scientific visualization, and from user experience to game studies. Research projects on these topics push the boundaries of how the medium can be used, while the variety of degree options prepare students to be practitioners and managers in an array of computer graphics-related careers. 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.

The five-year combined BS/MS Degree Program in Computer Graphics Technology enables outstanding students to complete the Bachelor of Science in a Computer Graphics Technology major and the Master of Science in Computer Graphics Technology in a total of five years, rather than six years or more (if pursued separately). Visit the Computer Graphics Technology website for additional information about this option.

Faculty

Department of Computer Graphics Technology Website

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

Graduate Information

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

Baccalaureate

Animation, BS

About the Program

Computer animation is everywhere, not only in entertainment but also in education, product and packaging, construction, healthcare and courtrooms as well as new applications yet to be discovered. When you major in animation at Purdue University,

you will focus on six areas of animation: 3-D modeling, texturing, lighting, rendering and character rigging (creating a digital skeleton) and motion. Your primary tool will be the powerful animation software, Maya, and you will experiment with other options.

Animation Website

Animation Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (54 credits)

Required Major Courses (39 credits)

- CGT 11200 - Sketching For Visualization And Communication
- CGT 11600 - Geometric Modeling For Visualization And Communication
- CGT 11800 - Fundamentals Of Imaging Technology
- CGT 12300 - Animation Foundations
- CGT 14100 - Internet Foundations Technologies And Development
- CGT 14700 - Visual Effects Introduction
- CGT 17208 - User Experience Design Studio I: Fundamentals
- CGT 20500 - Portfolio Review
- CGT 24100 - Introduction to Computer Animation
- CGT 25001 - Computer Graphics Professional Practices I
- CGT 27000 - Introduction To Data Visualization
- CGT 30505 - Portfolio II
- CGT 40500 - Senior Portfolio Review
- CGT 41101 - Contemporary Problems In Applied Computer Graphics I
- CGT 41201 - Contemporary Problems In Applied Computer Graphics II
- CGT 44200 - Production for Computer Animation (course must be taken twice for total of 6 credits)
- CGT 45001 - Computer Graphics Professional Practices II
- Intercultural Requirement - Credit Hours: 0.00
- Humanities Requirement - Credit Hours: 0.00
- Professional Requirement - Credit Hours: 0.00

CGT Entertainment Selectives (15 credits)

Other Departmental/Program Course Requirements (55 credits)

- MA 15800 - Precalculus- Functions And Trigonometry *(satisfies Quantitative Reasoning Selective for core)*
- MA 16010 - Applied Calculus I *(satisfies Quantitative Reasoning Selective for core)*
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity
  - ♦ *(satisfies Written Communication AND Information Literacy for core & a Cornerstone Area A)*

- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World ♦ *(satisfies Oral Communication for core & a Cornerstone Area A)*
- PHYS 22000 - General Physics ♦ *(satisfies Science for core)*
  Advanced English Selective - 1 Course (possible Cornerstone Selective)
- ENGL 20500 - Introduction To Creative Writing or
- ENGL 30400 - Advanced Composition or
- ENGL 41900 - Multimedia Writing or
- ENGL 42000 - Business Writing or
- ENGL 42100 - Technical Writing
  Statistics Selective - 1 Course
- IET 31600 - Statistical Quality Control or
- PSY 20100 - Introduction To Statistics In Psychology or
- STAT 22500 - Introduction To Probability Models or
- STAT 30100 - Elementary Statistical Methods or
- STAT 35000 - Introduction To Statistics
- Human Cultures: Humanities Selective (HUM) Core - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core & possible Cornerstone Selective)
- Human Cultures: Behavioral/Social Science (BSS) Core - Credit Hours: 3.00 (satisfies Human Culture Behavior/Social Science for core)
- Humanities Elective - Credit Hours: 6.00 (possible Cornerstone Selective)
- Science (SCI) Core - Credit Hours: 3.00 (satisfies Science for core)
- Science, Technology, and Society (STS) Core - Credit Hours: 3.00 (satisfies Science, Technology and Society for core)
- CGT Global Selective - Credit Hours: 3.00 (possible Cornerstone Selective)
- Technical Electives - Credit Hours: 12.00

Additional Degree Requirements

Click here for Animation Supplemental Information.

Cornerstone Certificate Required. Click here for Cornerstone Certificate.

Electives (11 Credits)

- Electives (any course, any subject) - Credit Hours: 11.00

University Requirements

University Core Requirements

For a complete listing of University Core Course Selectives, visit the <u>Provost's Website</u>**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)

- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Civics Literacy Proficiency Requirement:

The Civics Literacy Proficiency activities are designed to develop civic knowledge of Purdue students in an effort to graduate a more informed citizenry.

Students will complete the Proficiency by passing a test of civic knowledge, and completing one of three paths:

- Attending six approved civics-related events and completing an assessment for each; or
- Completing 12 podcasts created by the Purdue Center for C-SPAN Scholarship and Engagement that use C-SPAN material and completing an assessment for each; or
- Earning a passing grade for one of **these approved courses** (or transferring in approved AP or departmental credit in lieu of taking a course)
  For more information visit the Civics Literacy Proficiency **website.**

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- CGT 11200 - Sketching For Visualization And Communication
- CGT 11800 - Fundamentals Of Imaging Technology
- CGT 12300 - Animation Foundations
- CGT 14100 - Internet Foundations Technologies And Development
- MA 15800 - Precalculus- Functions And Trigonometry

15 Credits

Spring 1st Year

- CGT 11600 - Geometric Modeling For Visualization And Communication
- CGT 17208 - User Experience Design Studio I: Fundamentals
- CGT 24100 - Introduction to Computer Animation
- CGT 27000 - Introduction To Data Visualization
- MA 16010 - Applied Calculus I

15 Credits

Fall 2nd Year

- CGT Entertainment Selective - Credit Hours: 3.00
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity ♦
  or
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World ♦
- CGT 14700 - Visual Effects Introduction
- Human Cultures: Humanities (HUM) Core - Credit Hours: 3.00
- Technical Elective - Credit Hours: 3.00

15 Credits

Spring 2nd Year

- CGT 20500 - Portfolio Review
- CGT 25001 - Computer Graphics Professional Practices I
- CGT Entertainment Selective - Credit Hours: 3.00
- PHYS 22000 - General Physics
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World ♦
  or
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity ♦
- Elective - Credit Hours: 3.00

14 Credits

Fall 3rd Year

- CGT 44200 - Production for Computer Animation
- CGT Entertainment Selective - Credit Hours: 3.00
- Science (SCI) Core - Credit Hours: 3.00
- Technical Elective - Credit Hours: 3.00
  Statistics Selective - 1 Course
- IET 31600 - Statistical Quality Control or
- PSY 20100 - Introduction To Statistics In Psychology or
- STAT 22500 - Introduction To Probability Models or
- STAT 30100 - Elementary Statistical Methods or
- STAT 35000 - Introduction To Statistics

15 Credits

Spring 3rd Year

- CGT 30505 - Portfolio II
- CGT 44200 - Production for Computer Animation
- CGT Entertainment Selective - Credit Hours: 3.00
- Humanities Elective - Credit Hours: 3.00
- Human Cultures: Behavioral/Social Science (BSS) Core - Credit Hours: 3.00
- CGT Global Selective - Credit Hours: 3.00

15 Credits

Fall 4th Year

- CGT 41101 - Contemporary Problems In Applied Computer Graphics I
- CGT Entertainment Selective - Credit Hours: 3.00
- Elective - Credit Hours: 2.00
- Technical Elective - Credit Hours: 3.00
- Humanities Elective - Credit Hours: 3.00
- Science, Technology, and Society (STS) Core - Credit Hours: 3.00

16 Credits

Spring 4th Year

- CGT 40500 - Senior Portfolio Review
- CGT 41201 - Contemporary Problems In Applied Computer Graphics II
- CGT 45001 - Computer Graphics Professional Practices II
- Technical Elective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00
  Advanced English Selective - 1 Course (possible Cornerstone Selective)
- ENGL 20500 - Introduction To Creative Writing or
- ENGL 30400 - Advanced Composition or
- ENGL 41900 - Multimedia Writing or
- ENGL 42000 - Business Writing or
- ENGL 42100 - Technical Writing

15 Credits

Notes

- Students must earn a "C-" or better in all CGT courses.
- Pass/No Pass may be allowed for CGT 20500, 30501, 40500, Electives or Technical Electives only.

- 120 semester credits & 2.00 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
- 32 credit hours of 30000 or 40000 level Purdue courses for graduation.
- Cornerstone Certificate required with this major.

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

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

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Building Information Modeling, BS

About the Program

BIM (Building Information Modeling) should be understood as a process starting with the creation of a 3D model that is facilitated by the latest digital design technology and providing a holistic approach to construction that unifies design, building and documentation across a product's lifespan. BIM has caused a considerable positive disruption to the construction industry help transform the architecture, engineering and construction (AEC) industry through it's communicative and collaborative approach. Virtual Design & Construction (VDC) is action taken on BIM. VDC is simply a visual management methodology using BIM as part of our proven construction analysis and work processes. When you major in Building Information Modeling at Purdue University, you'll gain skills that will help a construction team create detailed designs of a 3D model generating a set of construction documentation to utilize in managing the buildings construction process from inception to facility management and beyond. You will learn about a wide range of topics necessary in the field, such as construction graphics, documentation, modeling, materials, methods of construction, casework, steelwork, carpentry, and MEPF trades. You will also learn about jobsite management and safety as well as the codes governing the construction & management structures.

Building Information Modeling Website

Building Information Modeling Major Change (CODO) Requirements:

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (45 credits)

Required Major Courses (36 credits)

- CGT 11800 - Fundamentals Of Imaging Technology
- CGT 14100 - Internet Foundations Technologies And Development
- CGT 17208 - User Experience Design Studio I: Fundamentals
- CGT 21500 - Computer Graphics Programming I
- CGT 25001 - Computer Graphics Professional Practices I
- CGT 26000 - Introduction To Modeling For BIM
- CGT 26200 - Introduction To Construction Graphics

- CGT 27000 - Introduction To Data Visualization
- CGT 36000 - Applications Of Construction Documentation I
- CGT 41101 - Contemporary Problems In Applied Computer Graphics I
- CGT 41201 - Contemporary Problems In Applied Computer Graphics II
- CGT 45001 - Computer Graphics Professional Practices II
- CGT 46000 - Building Information Modeling For Commercial Construction
- CGT 46200 - Applications Of Construction Documentation II
- Intercultural Requirment - Credit Hours: 0.00
- Humanities Requirement - Credit Hours: 0.00
- Professional Requirement - Credit Hours: 0.00

Major Selectives* - Choose 3 courses (9 credits)

- CGT Selective - Credit Hours: 3.00
- CGT Selective - Credit Hours: 3.00
- CGT Selective - Credit Hours: 3.00

Other Departmental/Program Course Requirements (61 credits)

- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity ♦ (*satisfies Written Communication AND Information Literacy for core* & a Cornerstone Area A)
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World ♦ (*satisfies Oral Communication for core* & a Cornerstone Area A)
- ECON 21000 - Principles Of Economics ♦ *(satisfies Human Culture Behavior/Social Science 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 22000 - General Physics ♦ (satisfies Science for core)
  Advanced English Selective - 1 Course (possible Cornerstone Selective)
- ENGL 20500 - Introduction To Creative Writing or
- ENGL 30400 - Advanced Composition or
- ENGL 41900 - Multimedia Writing or
- ENGL 42000 - Business Writing or
- ENGL 42100 - Technical Writing
  Statistics Selective - 1 Course
- IET 31600 - Statistical Quality Control or
- PSY 20100 - Introduction To Statistics In Psychology or
- STAT 22500 - Introduction To Probability Models or
- STAT 30100 - Elementary Statistical Methods or
- STAT 35000 - Introduction To Statistics
- Human Cultures:Behavioral/Social Sciences (BSS) Core - Credit Hours: 3.00 *(satisfies Human Culture Behavioral/Social Science for core)*
- Science, Technology, and Society (STS) Core - Credit Hours: 3.00 *(satisfies Science, Technology, and Society for core)*
- Human Cultures: Humanities (HUM) Core (*satisfies Humanities for Core* & a Cornerstone Selective) - Credit Hours: 3.00
- Humanities Elective (possible Cornerstone Selective) - Credit Hours: 3.00
- Science (SCI) Core (*satisfies Science Selective for core*) - Credit Hours: 3.00

- Communication Selective (possible Cornerstone Selective) - Credit Hours: 3.00
- Management Selective - Credit Hours: 3.00
- CGT Global Selective (possible Cornerstone Selective) - Credit Hours: 3.00
- Technical Electives - Credit Hours: 9.00

Electives (14 credits)

Any course, any subject. Credit Hours: 14.00

Additional Degree Requirements

Click here for Building Information Modeling Supplemental Information.

Cornerstone Certificate required. Click here for Cornerstone Certificate.

University Requirements

University Core Requirements

For a complete listing of University Core Course Selectives, visit the <u>Provost's Website</u>.

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Civics Literacy Proficiency Requirement:

The Civics Literacy Proficiency activities are designed to develop civic knowledge of Purdue students in an effort to graduate a more informed citizenry.

Students will complete the Proficiency by passing a test of civic knowledge, and completing <u>one of three</u> paths:

- Attending six approved civics-related events and completing an assessment for each; or
- Completing 12 podcasts created by the Purdue Center for C-SPAN Scholarship and Engagement that use C-SPAN material and completing an assessment for each; or
- Earning a passing grade for one of **these approved courses** (or transferring in approved AP or departmental credit in lieu of taking a course)
  For more information visit the Civics Literacy Proficiency **website.**

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- CGT 11800 - Fundamentals Of Imaging Technology
- CGT 14100 - Internet Foundations Technologies And Development
- CGT 27000 - Introduction To Data Visualization
- MA 15800 - Precalculus- Functions And Trigonometry ♦
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity ♦ or
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World ♦

15 Credits

Spring 1st Year

- CGT 17208 - User Experience Design Studio I: Fundamentals
- CGT 26000 - Introduction To Modeling For BIM
- MA 16010 - Applied Calculus I
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity ♦ or
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World ♦
- Human Cultures: Behavioral Social Sciences (BSS) Core - Credit Hours: 3.00

15 Credits

Fall 2nd Year

- CGT 21500 - Computer Graphics Programming I
- CGT 26200 - Introduction To Construction Graphics
- PHYS 22000 - General Physics ♦
- Science, Technology and Society (STS) Core - Credit Hours: 3.00
- Technical Elective - Credit Hours: 3.00

16 Credits

Spring 2nd Year

- CGT 36000 - Applications Of Construction Documentation I
- CGT 25001 - Computer Graphics Professional Practices I
- ECON 21000 - Principles Of Economics ♦
- Human Cultures: Humanities (HUM) Core - Credit Hours: 3.00
- Science (SCI) Core - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

16 Credits

Fall 3rd Year

- CGT 46200 - Applications Of Construction Documentation II
  Advanced English Selective - 1 Course (possible Cornerstone Selective)
- ENGL 20500 - Introduction To Creative Writing or
- ENGL 30400 - Advanced Composition or
- ENGL 41900 - Multimedia Writing or
- ENGL 42000 - Business Writing or
- ENGL 42100 - Technical Writing
- CGT Selective - Credit Hours: 3.00
- Humanities Elective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Spring 3rd Year

- CGT 46000 - Building Information Modeling For Commercial Construction
  Statistics Selective - 1 Course (possible Cornerstone Selective)
- IET 31600 - Statistical Quality Control or
- PSY 20100 - Introduction To Statistics In Psychology or
- STAT 22500 - Introduction To Probability Models or
- STAT 30100 - Elementary Statistical Methods or
- STAT 35000 - Introduction To Statistics
- CGT Selective - Credit Hours: 3.00
- CGT Globalization Selective - Credit Hours: 3.00
- Management Selective - Credit Hours: 3.00

15 Credits

Fall 4th Year

- CGT 41101 - Contemporary Problems In Applied Computer Graphics I
- MGMT 45500 - Legal Background For Business I ♦
- CGT Selective - Credit Hours: 3.00
- Technical Elective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00
- Elective - Credit Hours: 2.00

16 Credits

Spring 4th Year

- CGT 41201 - Contemporary Problems In Applied Computer Graphics II

- CGT 45001 - Computer Graphics Professional Practices II
- Communication Selective - Credit Hours: 3.00
- Technical Elective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

12 Credits

Notes

- Students must earn a "C-" or better in all CGT courses.
- Pass/No Pass may be allowed for Electives or Technical Electives only.

- 120 semester credit hours & 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.32 Credit Hours of 30000 or 40000 level Purdue courses for graduation.
- Cornerstone Certificate is required with this major.

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

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

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Data Visualization, BS

About the Program

The ability to understand and communicate data is an essential skill in this big data era. Data visualization specialists present complex information in an easy-to-understand format. Their efforts can help identify trends, provide important insights, illustrate impact, and enable data driven decision making. They can help highlight tumors in MRI images to track disease progression or visualize air flow over a car to assist designers in making more fuel efficient vehicles. The data visualization major at Purdue University focuses on the computer and graphics tools necessary to create accurate and meaningful visualizations for researchers, leaders, decision-makers and the general public.

To help you understand how to use data, you will learn about visualization techniques and work on design, programming, and user research skills. You will also experience firsthand the design and development process of a complex data visualization system. Data management and basic analysis skills are also important in this field. When you graduate from the program, you

will be able to design effective visual representations of data based on the data's characteristics, business needs, and the requirements of prospective users.

The coursework for this major will lead you through the spectrum of visualization topics. From learning about the basic types of data and their popular visualization forms to applying design techniques to scientific data, you will gain experience and problem solving skills that will be the foundation for your data visualization career. You will be able to combine all of your new skills in the Visualization Studio course and create a comprehensive, interactive visualization system for data analysis.

Special Features

- Prepare for a career in a field with an ongoing need for professionals who know how to present raw data in a way that does not overwhelm.
- Work with professors who are leading researchers in the area of data and scientific visualization
- Learn in small, close-knit classes that feature individualized attention
- Work with industry-standard software to gain the best hands-on experience
- Experience projects that highlight the visualization of data-rich information (InfoVis), scientific data (SciVis), biological data (BioVis), and more.
- Utilize the Polytechnic learning environment to become a career-ready graduate

DTVS Website

Data Visualization Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (45 credits)

Required Major Courses (39 credits)

- CGT 11600 - Geometric Modeling For Visualization And Communication
- CGT 11800 - Fundamentals Of Imaging Technology
- CGT 14100 - Internet Foundations Technologies And Development
- CGT 17208 - User Experience Design Studio I: Fundamentals
- CGT 21500 - Computer Graphics Programming I
- CGT 25001 - Computer Graphics Professional Practices I
- CGT 27000 - Introduction To Data Visualization
- CGT 27001 - Topics In Data Visualization
- CGT 27500 - Data Visualization II
- CGT 37000 - Interactive Data Visualization
- CGT 37700 - Scientific Visualization
- CGT 41101 - Contemporary Problems In Applied Computer Graphics I
- CGT 41201 - Contemporary Problems In Applied Computer Graphics II
- CGT 45001 - Computer Graphics Professional Practices II
- CGT 47000 - Data Visualization Studio
- Intercultural Requirement - Credit Hours: 0.00
- Humanities Requirement - Credit Hours: 0.00
- Professional Requirement - Credit Hours: 0.00

Major Selectives* -Choose two courses (6 credits)

- CGT Selective - Credit Hours: 3.00
- CGT Selective 30000 - 40000 level - Credit Hours: 3.00

Other Departmental/Program Course Requirements (64 credits)

- AD 10500 - Design I ♦
- ECON 21000 - Principles Of Economics ♦ *(satisfies Human Culture Behavior/Social Science 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 22000 - General Physics ♦ *(satisfies Science for core)*
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity ♦ *(satisfies Written Communication for core & a Cornerstone Area A)*
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World ♦ *(satisfies Oral Communication for core & a Cornerstone Area A)*
- STAT 30100 - Elementary Statistical Methods
  Advanced English Selective - 1 Course (possible Cornerstone Selective)
- ENGL 20500 - Introduction To Creative Writing or
- ENGL 30400 - Advanced Composition or
- ENGL 41900 - Multimedia Writing or
- ENGL 42000 - Business Writing or
- ENGL 42100 - Technical Writing
- Human Cultures: Humanities (HUM) Core (satisfies Humanities for Core & possible Cornerstone Selective) - Credit Hours: 3.00
- Human Cultures: Behavioral/Social Sciences (BSS) Core - Credit Hours: 3.00
- Humanities Elective (possible Cornerstone Selective) - Credit Hours: 3.00
- Science (SCI) Core - Credit Hours: 3.00
- Science, Technology and Society (STS) Core - Credit Hours: 3.00
- CGT Global Selective (possible Cornerstone Selective) - Credit Hours: 3.00
- Communication Selective (possible Cornerstone Selective) - Credit Hours: 3.00
- Management Elective - Credit Hours: 3.00
- Technical Electives - Credit Hours: 9.00

Electives (11 credits)

Any course, any subject. Credit Hours: 11.00

University Requirements

University Core Requirements

For a complete listing of University Core Course Selectives, visit the <u>Provost's Website</u>**.**

- Human Cultures: Behavioral/Social Science (BSS)

- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Civics Literacy Proficiency Requirement:

The Civics Literacy Proficiency activities are designed to develop civic knowledge of Purdue students in an effort to graduate a more informed citizenry.

Students will complete the Proficiency by passing a test of civic knowledge, and completing one of three paths:

- Attending six approved civics-related events and completing an assessment for each; or
- Completing 12 podcasts created by the Purdue Center for C-SPAN Scholarship and Engagement that use C-SPAN material and completing an assessment for each; or
- Earning a passing grade for one of **these approved courses** (or transferring in approved AP or departmental credit in lieu of taking a course)
  For more information visit the Civics Literacy Proficiency **website.**

Prerequisite Information:

For current pre-requisites for courses, click here.

Additional Degree Requirements

Click here for Data Visualization Supplemental Information.

Cornerstone Certificate requirements. Click here for Cornerstone Certificate.

Program Requirements

Fall 1st Year

- CGT 11800 - Fundamentals Of Imaging Technology
- CGT 14100 - Internet Foundations Technologies And Development
- CGT 27000 - Introduction To Data Visualization
- MA 15800 - Precalculus- Functions And Trigonometry
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity ♦ or
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World ♦

15 Credits

Spring 1st Year

- CGT 17208 - User Experience Design Studio I: Fundamentals
- CGT 27500 - Data Visualization II
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity ♦ or
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World ♦
- Human Cultures: Behavioral/Social Sciences (BSS) Core - Credit Hours: 3.00
- MA 16010 - Applied Calculus I

15 Credits

Fall 2nd Year

- CGT 11600 - Geometric Modeling For Visualization And Communication
- CGT 21500 - Computer Graphics Programming I
- PHYS 22000 - General Physics ♦
- Human Cultures: Humanities (HUM) Core - Credit Hours: 3.00
- Technical Elective - Credit Hours: 3.00

16 Credits

Spring 2nd Year

- AD 10500 - Design I
- CGT 25001 - Computer Graphics Professional Practices I
- CGT 27001 - Topics In Data Visualization
- CGT 37700 - Scientific Visualization
- ECON 21000 - Principles Of Economics ♦
- Free Elective - Credit Hours: 3.00

16 Credits

Fall 3rd Year

- STAT 30100 - Elementary Statistical Methods ♦
  Advanced English Selective - 1 Course (possible Cornerstone Selective)
- ENGL 20500 - Introduction To Creative Writing
  or
- ENGL 30400 - Advanced Composition
  or
- ENGL 41900 - Multimedia Writing
  or
- ENGL 42000 - Business Writing
  or
- ENGL 42100 - Technical Writing
- CGT Selective - Credit Hours: 3.00
- Science, Technology and Society (STS) Core - Credit Hours: 3.00
- Science (SCI) Core - Credit Hours: 3.00

15 Credits

Spring 3rd Year

- CGT 37000 - Interactive Data Visualization
- CGT Selective: 30000 or 40000 Level - Credit Hours: 3.00
- CGT Globalization Selective - Credit Hours: 3.00
- Management Selective - Credit Hours: 3.00
- Free Elective - Credit Hours: 3.00

15 Credits

Fall 4th Year

- CGT 47000 - Data Visualization Studio
- CGT 41101 - Contemporary Problems In Applied Computer Graphics I
- MGMT 45500 - Legal Background For Business I ♦
- Humanities Elective - Credit Hours: 3.00
- Free Elective - Credit Hours: 3.00

14 Credits

Spring 4th Year

- CGT 41201 - Contemporary Problems In Applied Computer Graphics II
- CGT 45001 - Computer Graphics Professional Practices II
- Communication Selective - Credit Hours: 3.00
- Technical Elective - Credit Hours: 3.00
- Technical Elective - Credit Hours: 3.00
- Free Elective - Credit Hours: 2.00

14 Credits

Notes

- Students must earn C- or better in CGT Courses.
- Pass/No Pass may be allowed for Electives or Technical Electives only.

- 120 semester credit hours & 2.00 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
- 32 hours of 30000 or 40000 level Purdue courses for graduation
- Cornerstone Certificate is required with this major.

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

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

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Game Development and Design, BS

About the Program

Whether you want to contribute to blockbuster AAA titles, study virtual reality, or use gaming to help with medical therapies, Purdue University's game studies major has a place for you. Purdue has been a leader in preparing students for careers in the games and animation industries. Because our professors are interested in new ideas and uses for computer games, they will help you stretch your imagination throughout the program. You will take classes in game development and design, animation, visualization, rendering and programming.

Research projects open to undergraduate students have focused on the use of games for sustainable energy, therapy and medicine, entertainment, information visualization and more.

Game Studies Website

Game Development and Design Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (54 credits)

Required Major Courses (39 credits)

- CGT 10501 - Introduction To Games
- CGT 11600 - Geometric Modeling For Visualization And Communication
- CGT 11800 - Fundamentals Of Imaging Technology
- CGT 14100 - Internet Foundations Technologies And Development
- CGT 17208 - User Experience Design Studio I: Fundamentals
- CGT 20500 - Portfolio Review
- CGT 21500 - Computer Graphics Programming I
- CGT 24500 - Game Development I: Core Skills And Technologies

- CGT 25001 - Computer Graphics Professional Practices I
- CGT 25500 - Game Development II: Design And Psychology
- CGT 27000 - Introduction To Data Visualization
- CGT 30505 - Portfolio II
- CGT 36500 - Game Development Practicum
- CGT 40500 - Senior Portfolio Review
- CGT 41101 - Contemporary Problems In Applied Computer Graphics I
- CGT 41201 - Contemporary Problems In Applied Computer Graphics II
- CGT 45001 - Computer Graphics Professional Practices II
- Intercultural Requirements - Credit Hours: 0.00
- Humanities Requirement - Credit Hours: 0.00
- Professional Requirement - Credit Hours: 0.00

CGT Entertainment Selectives (15 credits)

Other Departmental/Program Course Requirements (55 credits)

- MA 15800 - Precalculus- Functions And Trigonometry *(satisfies Quantitative Reasoning Selective for core)*
- MA 16010 - Applied Calculus I *(satisfies Quantitative Reasoning Selective for core)*
- PHYS 22000 - General Physics ♦ (satisfies Science for core)
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity ♦ *(satisfies Written Communication for core & a Cornerstone Area A)*
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World ♦ *(satisfies Oral Communication for core & a Cornerstone Area A)*
  Advanced English Selective - 1 Course (possible Cornerstone Selective)
- ENGL 20500 - Introduction To Creative Writing or
- ENGL 30400 - Advanced Composition or
- ENGL 41900 - Multimedia Writing or
- ENGL 42000 - Business Writing or
- ENGL 42100 - Technical Writing
  Statistics Selective - 1 Course
- IET 31600 - Statistical Quality Control or
- PSY 20100 - Introduction To Statistics In Psychology or
- STAT 22500 - Introduction To Probability Models or
- STAT 30100 - Elementary Statistical Methods or
- STAT 35000 - Introduction To Statistics
- Human Cultures: Humanities (HUM) Core (satisfies Humanities for Core & possible Cornerstone Selective) - Credit Hours: 3.00
- Human Cultures: Behavioral/Social Sciences (BSS) Core (satisfies Behavioral/Social Sciences for core) - Credit Hours: 3.00
- Humanities Elective (possible Cornerstone Selective) - Credit Hours: 6.00
- Science (SCI) Core (satisfies Science Selective for core) - Credit Hours: 3.00
- Science Technology & Society (STS) Core (satisfies Science, Technology, and Society for core) - Credit Hours: 3.00
- CGT Global Selective (possible Cornerstone Selective) - Credit Hours: 3.00
- Technical Electives - Credit Hours: 12.00

Electives (11 credits)

- Any course, any subject - Credit Hours: 11.00

Additional Degree Requirements

Click here for Game Development and Design Supplemental Information.

Cornerstone Certificate requirements. Click here for Cornerstone Certificate.

University Requirements

University Core Requirements

For a complete listing of University Core Course Selectives, visit the <u>Provost's Website</u>**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Civics Literacy Proficiency Requirement:

The Civics Literacy Proficiency activities are designed to develop civic knowledge of Purdue students in an effort to graduate a more informed citizenry.

Students will complete the Proficiency by passing a test of civic knowledge, and completing <u>one of three</u> paths:

- Attending six approved civics-related events and completing an assessment for each; or
- Completing 12 podcasts created by the Purdue Center for C-SPAN Scholarship and Engagement that use C-SPAN material and completing an assessment for each; or
- Earning a passing grade for one of **these approved courses** (or transferring in approved AP or departmental credit in lieu of taking a course)
  For more information visit the Civics Literacy Proficiency **website.**

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- CGT 10501 - Introduction To Games
- CGT 11800 - Fundamentals Of Imaging Technology
- CGT 14100 - Internet Foundations Technologies And Development
- CGT 24500 - Game Development I: Core Skills And Technologies
- MA 15800 - Precalculus- Functions And Trigonometry

15 Credits

Spring 1st Year

- CGT 11600 - Geometric Modeling For Visualization And Communication
- CGT 17208 - User Experience Design Studio I: Fundamentals
- CGT 25500 - Game Development II: Design And Psychology
- CGT 27000 - Introduction To Data Visualization
- MA 16010 - Applied Calculus I

15 Credits

Fall 2nd Year

- CGT 21500 - Computer Graphics Programming I
- Human Cultures: Humanities (HUM) Core - Credit Hours: 3.00
- Technical Elective - Credit Hours: 3.00
- CGT Entertainment Selective - Credit Hours: 3.00
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity ♦ or
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World ♦

15 Credits

Spring 2nd Year

- CGT 20500 - Portfolio Review
- CGT 25001 - Computer Graphics Professional Practices I
- CGT Entertainment Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00
- PHYS 22000 - General Physics ♦
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World ♦ or
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity ♦

14 Credits

Fall 3rd Year

- CGT 36500 - Game Development Practicum
- Science (SCI) Core - Credit Hours: 3.00

- CGT Entertainment Selective: Credit Hours: 3.00
- Technical Elective - Credit Hours: 3.00
  Statistics Selective - 1 Course
- IET 31600 - Statistical Quality Control or
- PSY 20100 - Introduction To Statistics In Psychology or
- STAT 22500 - Introduction To Probability Models or
- STAT 30100 - Elementary Statistical Methods or
- STAT 35000 - Introduction To Statistics

15 Credits

Spring 3rd Year

- CGT 30505 - Portfolio II
- CGT 36500 - Game Development Practicum
- CGT Entertainment Selective - Credit Hours: 3.00
- CGT Globalization Selective - Credit Hours: 3.00
- Human Cultures: Behavioral/Social Science (BSS) Core - Credit Hours: 3.00
- Humanities Elective - Credit Hours: 3.00

15 Credits

Fall 4th Year

- CGT 41101 - Contemporary Problems In Applied Computer Graphics I
- CGT Entertainment Selective - Credit Hours: 3.00
- Humanities Elective - Credit Hours: 3.00
- Technical Elective - Credit Hours: 3.00
- Science Technology and Society (STS) Core - Credit Hours: 3.00
- Elective - Credit Hours: 2.00

16 Credits

Spring 4th Year

- CGT 41201 - Contemporary Problems In Applied Computer Graphics II
- CGT 45001 - Computer Graphics Professional Practices II
- CGT 40500 - Senior Portfolio Review
- Technical Elective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00
  Advanced English Selective - 1 Course (possible Cornerstone Selective)
- ENGL 20500 - Introduction To Creative Writing or
- ENGL 30400 - Advanced Composition or
- ENGL 41900 - Multimedia Writing or
- ENGL 42000 - Business Writing or

- ENGL 42100 - Technical Writing

15 Credits

Notes

- Students must earn a "C-" or better in all CGT courses.
- Pass/No Pass may be allowed for CGT 20500, 30501, 40500, Electives or Technical Electives only.
- 120 semester credits & 2.00 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 IF32 credit hours of 30000 or 40000 level Purdue courses for graduation.
- Cornerstone Certificate is required with this major.

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

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

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

UX Design, BS

About the Program

User Experience (UX) design is an approach to creating products, systems, and services that are effective and enjoyable to use. By placing the user at the center of the design process, we ensure that technologies are easy to learn and use, are fun and enjoyable, and help users to achieve their goals.

Human Centered Design and Development Website

UX Design Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (45 credits)

- CGT 11800 - Fundamentals Of Imaging Technology
- CGT 14100 - Internet Foundations Technologies And Development
- CGT 17207 - User Experience Design Experience Studio I
- CGT 17208 - User Experience Design Studio I: Fundamentals
- CGT 25001 - Computer Graphics Professional Practices I
- CGT 27000 - Introduction To Data Visualization
- CGT 27108 - User Experience Design Studio II: Screen
- CGT 27207 - User Experience Design Experience Studio II *(must be taken twice)*
- CGT 27208 - User Experience Design Studio III: Cross-Channel
- CGT 37108 - User Experience Design Studio IV: Strategy
- CGT 37207 - User Experience Design Experience Studio III *(must be taken twice)*
- CGT 37208 - User Experience Design Studio V: Specialization
- CGT 41101 - Contemporary Problems In Applied Computer Graphics I
- CGT 41201 - Contemporary Problems In Applied Computer Graphics II
- CGT 45001 - Computer Graphics Professional Practices II
- Intercultural Requirement - Credit Hours: 0.00
- Humanities Requirement - Credit Hours: 0.00
- Professional Requirement - Credit Hours: 0.00

Other Departmental/Program Course Requirements (69 credits)

- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity ♦ (*satisfies Written Communication for core*)
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World ♦ (*satisfies Oral Communication for core*)
- Science (SCI) Core Selectives (*satisfies Science for core*) - Credit Hours: 6.00
- Science, Technology and Society Selective (STS) (*satisfies Science, Technology and Society for core*) - Credit Hours: 3.00
- Human Cultures: Behavioral/Social Sciences Selective (BSS) (*satisfies Human Cultures: Behavioral/Social Sciences for core*) - Credit Hours: 3.00
- CGT Global Selectives - Credit Hours: 9.00
- CGT Leadership - Credit Hours: 9.00
- Psychology & Human Behavior Selectives - Credit Hours: 9.00
- Human Cultures: Humanities Selective (HUM) (satisfies Human Cultures: Humanities for core) - Credit Hours: 3.00
- Written/Oral Communication Selectives - Credit Hours: 9.00
- Math Selective - Credit Hours: 3.00
- Technical Electives - Credit Hours: 9.00

Electives (6 credits)

Any course, any subject. Credit Hours: 6.00

University Requirements

University Core Requirements

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Civics Literacy Proficiency Requirement:

The Civics Literacy Proficiency activities are designed to develop civic knowledge of Purdue students in an effort to graduate a more informed citizenry.

Students will complete the Proficiency by passing a test of civic knowledge, and completing <u>one of three</u> paths:

- Attending six approved civics-related events and completing an assessment for each; or
- Completing 12 podcasts created by the Purdue Center for C-SPAN Scholarship and Engagement that use C-SPAN material and completing an assessment for each; or
- Earning a passing grade for one of **these approved courses** (or transferring in approved AP or departmental credit in lieu of taking a course)

    For more information visit the Civics Literacy Proficiency **website.**

Prerequisite Information:

For current pre-requisites for courses, click here.

Additional Requirements

Click here for UX Design Supplemental Course Information.

Program Requirements

Fall 1st Year

- CGT 11800 - Fundamentals Of Imaging Technology
- CGT 14100 - Internet Foundations Technologies And Development
- CGT 27000 - Introduction To Data Visualization
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity ♦ or
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World ♦
- Math Selective - Credit Hours: 3.00 *

15 Credits

Spring 1st Year

- CGT 17207 - User Experience Design Experience Studio I
- CGT 17208 - User Experience Design Studio I: Fundamentals
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity ♦ or
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World ♦
- Technical Elective - Credit Hours: 3.00
- Human Cultures: Behavioral/Social Sciences (BSS) Core - Credit Hours: 3.00

15 Credits

Fall 2nd Year

- CGT 27207 - User Experience Design Experience Studio II
- CGT 27108 - User Experience Design Studio II: Screen
- CGT Globalization Selective - Credit Hours: 3.00
- Written or Oral Communication - Credit Hours: 3.00
- Technical Elective - Credit Hours: 3.00

15 Credits

Spring 2nd Year

- CGT 27207 - User Experience Design Experience Studio II
- CGT 27208 - User Experience Design Studio III: Cross-Channel
- CGT 25001 - Computer Graphics Professional Practices I
- Science (SCI) Core - Credit Hours: 3.00
- Human Cultures: Humanities (HUM) Core - Credit Hours: 3.00
- Psychology & Human Behavior Selective - Credit Hours: 3.00

16 Credits

Fall 3rd Year

- CGT 37108 - User Experience Design Studio IV: Strategy
- CGT 37207 - User Experience Design Experience Studio III
- CGT Leadership Selective - Credit Hours: 3.00
- Technical Elective - Credit Hours: 3.00
- Psychology & Human Behavior Selective - Credit Hours: 3.00

15 Credits

Spring 3rd Year

- CGT 37207 - User Experience Design Experience Studio III
- CGT 37208 - User Experience Design Studio V: Specialization
- CGT Leadership Selective - Credit Hours: 3.00
- Psychology & Human Behavior Selective - Credit Hours: 3.00
- Written or Oral Communication - Credit Hours: 3.00

15 Credits

Fall 4th Year

- CGT 41101 - Contemporary Problems In Applied Computer Graphics I
- Written or Oral Communication - Credit Hours: 3.00
- CGT Globalization Selective - Credit Hours: 3.00
- Science (SCI) Core - Credit Hours: 3.00
- Science, Technology and Society (STS) Core - Credit Hours: 3.00

14 Credits

Spring 4th Year

- CGT 41201 - Contemporary Problems In Applied Computer Graphics II
- CGT 45001 - Computer Graphics Professional Practices II
- CGT Globalization Selective - Credit Hours: 3.00
- CGT Leadership Selective - Credit Hours: 3.00
- Free Elective - Credit Hours: 3.00
- Free Elective - Credit Hours: 3.00

15 Credits

Notes

- Students must earn a "C-" or better in all CGT courses.
- Pass/No Pass may be allowed for Electives or Technical Electives only.
- 120 semester credits & 2.00 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
- 32 credit Hours of 30000 or 40000 level Purdue courses for graduation

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be

proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

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

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Virtual Product Integration, BS

About the Program

Modern products are increasingly supported by data-driven design, manufacturing, production and support throughout a product's lifecycle. With a major in Virtual Product Integration (VPI), you will use the latest tools to effectively communicate and support each step in the product's lifecycle. In your classes, you will define, build, and visualize 3D models to demonstrate how products are built, how they are made, how they are serviced and supported, and how the data used throughout this process is managed. Your work will be done primarily with Product Lifecycle Management (PLM) software tools for simulation, Computer-Aided Design (CAD), and Product Data Management (PDM).

Virtual Product Integration Website

Virtual Product Integration Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (45 credits)

Required Major Courses (45 credits)

- CGT 10301 - Geometric Modeling Applications
- CGT 11301 - Product Data Management
- CGT 11800 - Fundamentals Of Imaging Technology
- CGT 14100 - Internet Foundations Technologies And Development
- CGT 17208 - User Experience Design Studio I: Fundamentals
- CGT 20301 - Model-Based Definition
- CGT 21301 - Simulation And Visualization Applications
- CGT 21500 - Computer Graphics Programming I
- CGT 25001 - Computer Graphics Professional Practices I
- CGT 27000 - Introduction To Data Visualization
- CGT 30301 - Digital Manufacturing
- CGT 31301 - The Business Of Managing Digital Product Data
- CGT 35600 - Web Programming, Development And Data Integration
- CGT 41101 - Contemporary Problems In Applied Computer Graphics I

- CGT 41201 - Contemporary Problems In Applied Computer Graphics II
- CGT 45001 - Computer Graphics Professional Practices II
- CGT 45600 - Advanced Web Programming, Development And Data Integration
- Intercultural Requirement - Credit Hours: 0.00
- Humanities Requirement - Credit Hours: 0.00
- Professional Requirement - Credit Hours: 0.00

Other Departmental/Program Course Requirements (64 credits)

- 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 22000 - General Physics ♦ *(satisfies Science for core)*
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity ♦ *(satisfies Written Communication for core* & a Cornerstone Area A*)*
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World ♦ *(satisfies Oral Communication for core* & a Cornerstone Area A*)*
- ECON 21000 - Principles Of Economics ♦
  Advanced English Selective - 1 Course (Possible Cornerstone Selective)
- ENGL 20500 - Introduction To Creative Writing or
- ENGL 30400 - Advanced Composition or
- ENGL 41900 - Multimedia Writing or
- ENGL 42000 - Business Writing or
- ENGL 42100 - Technical Writing
  Statistics Selective - 1 Course
- IET 31600 - Statistical Quality Control or
- PSY 20100 - Introduction To Statistics In Psychology or
- STAT 22500 - Introduction To Probability Models or
- STAT 30100 - Elementary Statistical Methods or
- STAT 35000 - Introduction To Statistics
- Human Cultures: Humanities (HUM) (satisfies Humanities for Core & possible Cornerstone Selective) - Credit Hours: 3.00
- Human Cultures: Behavioral/Social Sciences (BSS) (satisfies Human Cultures Behavior/Social Science for core) - Credit Hours: 3.00
- Science, Technology and Society Selective (STS) (satisfies Science, Technology and Society for core) - Credit Hours: 3.00
- Science (SCI) Core (satisfies Science Selective for Core) - Credit Hours: 3.00
- Humanities Elective (possible Cornerstone Selective) - Credit Hours: 6.00
- Technical Elective - Credit Hours: 9.00
- Management Elective - Credit Hours: 3.00
- Communication Selective (possible Cornerstone Selective) - Credit Hours: 3.00
- CGT Global Selective (possible Cornerstone Selective) - Credit Hours: 3.00

Electives (11 credits)

Any course, any subject. Credit Hours: 11.00

University Requirements

University Core Requirements

For a complete listing of University Core Course Selectives, visit the <u>Provost's Website</u>**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Civics Literacy Proficiency Requirement:

The Civics Literacy Proficiency activities are designed to develop civic knowledge of Purdue students in an effort to graduate a more informed citizenry.

Students will complete the Proficiency by passing a test of civic knowledge, and completing <u>one of three</u> paths:

- Attending six approved civics-related events and completing an assessment for each; or
- Completing 12 podcasts created by the Purdue Center for C-SPAN Scholarship and Engagement that use C-SPAN material and completing an assessment for each; or
- Earning a passing grade for one of **these approved courses** (or transferring in approved AP or departmental credit in lieu of taking a course)
  For more information visit the Civics Literacy Proficiency **website.**

Prerequisite Information:

For current pre-requisites for courses, click here.

Additional Requirements

Click here for Virtual Product Integration Supplemental Information.

Cornerstone Certificate required. Click here for Cornerstone Certificate.

Program Requirements

Fall 1st Year

- CGT 11800 - Fundamentals Of Imaging Technology
- CGT 14100 - Internet Foundations Technologies And Development
- CGT 27000 - Introduction To Data Visualization

- MA 15800 - Precalculus- Functions And Trigonometry
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity ♦ or
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World ♦

15 Credits

Spring 1st Year

- CGT 10301 - Geometric Modeling Applications
- CGT 17208 - User Experience Design Studio I: Fundamentals
- MA 16010 - Applied Calculus I
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World ♦ or
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity ♦
- Human Cultures: Behavioral/Social Sciences (BSS) Core- Credit Hours: 3.00

15 Credits

Fall 2nd Year

- CGT 21500 - Computer Graphics Programming I
- CGT 11301 - Product Data Management
- PHYS 22000 - General Physics ♦
- Human Culture: Humanities (HUM) Core - Credit Hours: 3.00
- Technical Elective - Credit Hours: 3.00

16 Credits

Spring 2nd Year

- CGT 20301 - Model-Based Definition
- CGT 25001 - Computer Graphics Professional Practices I
- ECON 21000 - Principles Of Economics ♦
- Science (SCI) Core - Credit Hours: 3.00
- Technical Elective - Credit Hours: 3.00
- Free Elective - Credit Hours: 3.00

16 Credits

Fall 3rd Year

- CGT 21301 - Simulation And Visualization Applications
- CGT 35600 - Web Programming, Development And Data Integration
  Advanced English Selective - 1 Course (Possible Cornerstone Selective)
- ENGL 20500 - Introduction To Creative Writing or
- ENGL 30400 - Advanced Composition or

- ENGL 41900 - Multimedia Writing or
- ENGL 42000 - Business Writing or
- ENGL 42100 - Technical Writing
- Humanities Elective - Credit Hours: 3.00
- Free Elective - Credit Hours: 3.00

15 Credits

Spring 3rd Year

- CGT 30301 - Digital Manufacturing
- CGT 45600 - Advanced Web Programming, Development And Data Integration
  Statistics Selective - 1 Course
- IET 31600 - Statistical Quality Control or
- PSY 20100 - Introduction To Statistics In Psychology or
- STAT 22500 - Introduction To Probability Models or
- STAT 30100 - Elementary Statistical Methods or
- STAT 35000 - Introduction To Statistics
- Management Selective - Credit Hours: 3.00
- CGT Globalization Selective - Credit Hour: 3.00

15 Credits

Fall 4th Year

- CGT 31301 - The Business Of Managing Digital Product Data
- CGT 41101 - Contemporary Problems In Applied Computer Graphics I
- MGMT 45500 - Legal Background For Business I ♦
- Humanities Elective - Credit Hours: 3.00
- Science, Technology and Society Selective (STS) Core - Credit Hours: 3.00
- Free Elective - Credit Hours: 2.00

16 Credits

Spring 4th Year

- CGT 41201 - Contemporary Problems In Applied Computer Graphics II
- CGT 45001 - Computer Graphics Professional Practices II
- Communication Selective - Credit Hour: 3.00
- Technical Elective - Credit Hours: 3.00
- Free Elective - Credit Hour: 3.00

12 Credits

Notes

- Students must earn a "C-" or better in all CGT courses.
- Pass/No Pass may be allowed for Electives or Technical Electives only.

- 120 semester credits & 2.00 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
- 32 credit hours of 30000 or 40000 level Purdue courses for graduation
- Cornerstone Certificate is required with this major.

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

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

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Visual Effects Compositing, BS

About the Program

No movie today is completed without the use of digital enhancements. A compositor is responsible for layering all digital effects in the final movie, including color correction, integration of rendered 3-D models, object removal, and set extensions. The visual effects compositing major gives you experience creating effects for video in both live action and computer-generated integration.

Visual Effects Compositing Website

Visual Effects Compositing Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (54 credits)

Required Major Courses (39 credits)

- CGT 11200 - Sketching For Visualization And Communication

- CGT 11600 - Geometric Modeling For Visualization And Communication
- CGT 11800 - Fundamentals Of Imaging Technology
- CGT 12300 - Animation Foundations
- CGT 14100 - Internet Foundations Technologies And Development
- CGT 14700 - Visual Effects Introduction
- CGT 17208 - User Experience Design Studio I: Fundamentals
- CGT 20500 - Portfolio Review
- CGT 24100 - Introduction to Computer Animation
- CGT 25001 - Computer Graphics Professional Practices I
- CGT 27000 - Introduction To Data Visualization
- CGT 30505 - Portfolio II
- CGT 40500 - Senior Portfolio Review
- CGT 41101 - Contemporary Problems In Applied Computer Graphics I
- CGT 41201 - Contemporary Problems In Applied Computer Graphics II
- CGT 44200 - Production for Computer Animation (course must be taken twice for total of 6 credits)
- CGT 45001 - Computer Graphics Professional Practices II
- Intercultural Requirement - Credit Hours: 0.00
- Humanities Requirement - Credit Hours: 0.00
- Professional Requirement - Credit Hours: 0.00

CGT Entertainment Selectives (15 credits)

Other Departmental/Program Course Requirements (55 credits)

- MA 15800 - Precalculus- Functions And Trigonometry *(satisfies Quantitative Reasoning Selective for core)*
- MA 16010 - Applied Calculus I *(satisfies Quantitative Reasoning Selective for core)*
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity
  ♦ *(satisfies Written Communication AND Information Literacy for core & a Cornerstone Area A)*
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World ♦ *(satisfies Oral Communication for core & a Cornerstone Area A)*
- PHYS 22000 - General Physics ♦ *(satisfies Science for core)*
  Advanced English Selective - 1 Course (possible Cornerstone Selective)
- ENGL 20500 - Introduction To Creative Writing or
- ENGL 30400 - Advanced Composition or
- ENGL 41900 - Multimedia Writing or
- ENGL 42000 - Business Writing or
- ENGL 42100 - Technical Writing
  Statistics Selective - 1 Course
- IET 31600 - Statistical Quality Control or
- PSY 20100 - Introduction To Statistics In Psychology or
- STAT 22500 - Introduction To Probability Models or
- STAT 30100 - Elementary Statistical Methods or
- STAT 35000 - Introduction To Statistics
- Human Cultures: Humanities Selective (HUM) Core - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core & possible Cornerstone Selective)
- Human Cultures: Behavioral/Social Science (BSS) Core - Credit Hours: 3.00 (satisfies Human Culture Behavior/Social Science for core)

- Humanities Elective - Credit Hours: 6.00 (possible Cornerstone Selective)
- Science (SCI) Core - Credit Hours: 3.00 (satisfies Science for core)
- Science, Technology, and Society (STS) Core - Credit Hours: 3.00 (satisfies Science, Technology and Society for core)
- CGT Global Selective - Credit Hours: 3.00 (possible Cornerstone Selective)
- Technical Electives - Credit Hours: 12.00

Additional Degree Requirements

Click here for Animation Supplemental Information.

Cornerstone Certificate Required. Click here for Cornerstone Certificate.

Electives (11 Credits)

- Electives (any course, any subject) - Credit Hours: 11.00

University Requirements

University Core Requirements

For a complete listing of University Core Course Selectives, visit the <u>Provost's Website</u>**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Civics Literacy Proficiency Requirement:

The Civics Literacy Proficiency activities are designed to develop civic knowledge of Purdue students in an effort to graduate a more informed citizenry.

Students will complete the Proficiency by passing a test of civic knowledge, and completing <u>one of three</u> paths:

- Attending six approved civics-related events and completing an assessment for each; or
- Completing 12 podcasts created by the Purdue Center for C-SPAN Scholarship and Engagement that use C-SPAN material and completing an assessment for each; or
- Earning a passing grade for one of **these approved courses** (or transferring in approved AP or departmental credit in lieu of taking a course)
  For more information visit the Civics Literacy Proficiency **website.**

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- CGT 11200 - Sketching For Visualization And Communication
- CGT 11800 - Fundamentals Of Imaging Technology
- CGT 12300 - Animation Foundations
- CGT 14100 - Internet Foundations Technologies And Development
- MA 15800 - Precalculus- Functions And Trigonometry

15 Credits

Spring 1st Year

- CGT 11600 - Geometric Modeling For Visualization And Communication
- CGT 17208 - User Experience Design Studio I: Fundamentals
- CGT 24100 - Introduction to Computer Animation
- CGT 27000 - Introduction To Data Visualization
- MA 16010 - Applied Calculus I

15 Credits

Fall 2nd Year

- CGT Entertainment Selective - Credit Hours: 3.00
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity ♦ or
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World ♦
- CGT 14700 - Visual Effects Introduction
- Human Cultures: Humanities (HUM) Core - Credit Hours: 3.00
- Technical Elective - Credit Hours: 3.00

15 Credits

Spring 2nd Year

- CGT 20500 - Portfolio Review
- CGT 25001 - Computer Graphics Professional Practices I
- CGT Entertainment Selective - Credit Hours: 3.00
- PHYS 22000 - General Physics
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World ♦ or
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity ♦
- Elective - Credit Hours: 3.00

14 Credits

Fall 3rd Year

- Science (SCI) Core - Credit Hours: 3.00
- CGT 44200 - Production for Computer Animation
- CGT Entertainment Selective - Credit Hours: 3.00
- Technical Elective - Credit Hours: 3.00
  Statistics Selective - 1 Course
- IET 31600 - Statistical Quality Control or
- PSY 20100 - Introduction To Statistics In Psychology or
- STAT 22500 - Introduction To Probability Models or
- STAT 30100 - Elementary Statistical Methods or
- STAT 35000 - Introduction To Statistics

15 Credits

Spring 3rd Year

- CGT 30505 - Portfolio II
- CGT 44200 - Production for Computer Animation
- CGT Entertainment Selective - Credit Hours: 3.00
- Humanities Elective - Credit Hours: 3.00
- Human Cultures: Behavioral/Social Science (BSS) Core - Credit Hours: 3.00
- CGT Global Selective - Credit Hours: 3.00

15 Credits

Fall 4th Year

- CGT 41101 - Contemporary Problems In Applied Computer Graphics I
- CGT Entertainment Selective - Credit Hours: 3.00
- Elective - Credit Hours: 2.00
- Technical Elective - Credit Hours: 3.00
- Humanities Elective - Credit Hours: 3.00
- Science, Technology, and Society (STS) Core - Credit Hours: 3.00

16 Credits

Spring 4th Year

- CGT 40500 - Senior Portfolio Review
- CGT 41201 - Contemporary Problems In Applied Computer Graphics II
- CGT 45001 - Computer Graphics Professional Practices II
- Technical Elective - Credit Hours: 3.00

- Elective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00
  Advanced English Selective - 1 Course (possible Cornerstone Selective)
- ENGL 20500 - Introduction To Creative Writing or
- ENGL 30400 - Advanced Composition or
- ENGL 41900 - Multimedia Writing or
- ENGL 42000 - Business Writing or
- ENGL 42100 - Technical Writing

15 Credits

Notes

- Students must earn a "C-" or better in all CGT courses.
- Pass/No Pass may be allowed for CGT 20500, 30501, 40500, Electives or Technical Electives only.

- 120 semester credits & 2.00 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
- 32 credit hours of 30000 or 40000 level Purdue courses for graduation.
- Cornerstone Certificate required with this major.

Critical Course

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

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Web Programming & Design, BS

About the Program

Before most web sites and mobile applications are launched, there is a vast amount of planning, programming and testing that takes place. When you study web programming and design at Purdue University, you will gain expertise in all aspects of this development process.

Each web and mobile project has its own set of requirements. Will it need to allow financial transactions? Does it need to store and retrieve customer information? How will it operate on different platforms? The courses in the web programming and design major will help you answer those questions and design a final product that is functional, secure, and user-friendly.

From front-end design using HTML5, JavaScript and CSS to back-end Programming using PHP and MySQL or .Net and SQL Server environments, you will gain a broad spectrum of programming capoabilities and concepts that will allow you to prosper and adapt in this constantly changing industry.

Web Programming and Design Website

Web Programming & Design Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (45 credits)

Required Major Courses (36 credits)

- CGT 11600 - Geometric Modeling For Visualization And Communication
- CGT 11800 - Fundamentals Of Imaging Technology
- CGT 14100 - Internet Foundations Technologies And Development
- CGT 17208 - User Experience Design Studio I: Fundamentals
- CGT 21500 - Computer Graphics Programming I
- CGT 25001 - Computer Graphics Professional Practices I
- CGT 27000 - Introduction To Data Visualization
- CGT 31500 - Computer Graphics Programming II
- CGT 35300 - Principles Of Interactive And Dynamic Media
- CGT 35600 - Web Programming, Development And Data Integration
- CGT 41101 - Contemporary Problems In Applied Computer Graphics I
- CGT 41201 - Contemporary Problems In Applied Computer Graphics II
- CGT 45001 - Computer Graphics Professional Practices II
- CGT 45600 - Advanced Web Programming, Development And Data Integration
- Intercultural Requirement - Credit Hours: 0.00
- Humanities Requirement - Credit Hours: 0.00
- Professional Requirement - Credit Hours: 0.00

Major Selectives* - Choose three courses (9 credits)

- CGT Selective - Credit Hours: 3.00
- CGT Selective - Credit Hours: 3.00
- CGT Selective - Credit Hours: 3.00

Other Departmental/Program Course Requirements (64 credits)

- ECON 21000 - Principles Of Economics ♦ *(satisfies Human Culture Behavior/Social Science 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 22000 - General Physics ♦ *(satisfies Science for core)*
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity ♦ *(satisfies Written Communication for core & Cornerstone Area A)*
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World ♦ *(satisfies Oral Communication for core & a Cornerstone Area A)*
  Advanced English Selective - 1 Course (possible Cornerstone Selective)
- ENGL 20500 - Introduction To Creative Writing or
- ENGL 30400 - Advanced Composition or
- ENGL 41900 - Multimedia Writing or
- ENGL 42000 - Business Writing or
- ENGL 42100 - Technical Writing
  Statistics Selective - 1 Course
- IET 31600 - Statistical Quality Control or
- PSY 20100 - Introduction To Statistics In Psychology or
- STAT 22500 - Introduction To Probability Models or
- STAT 30100 - Elementary Statistical Methods or
- STAT 35000 - Introduction To Statistics
- Human Cultures: Humanities (HUM) Core (satisfies Humanities for core & possible Cornerstone Selective)- Credit Hours: 3.00
- Human Cultures: Behavioral/Social Sciences Selective (BSS) Core (satisfies Human Cultures: Behavioral/Social Sciences for core)- Credit Hours: 3.00
- Humanities Elective (possible Cornerstone Selective) - Credit Hours: 6.00
- Science, Technology and Society (STS) Core (satisfies Science, Technology and Society for core) - Credit Hours: 3.00
- Science (SCI) Core (satisfies Science Selective for core) - Credit Hours: 3.00
- Communication Selective (possible Cornerstone Selective) - Credit Hours: 3.00
- Management Selective - Credit Hours: 3.00
- CGT Global Selective (possible Cornerstone Selective) - Credit Hours: 3.00
- Technical Electives - Credit Hours: 9.00

Electives (11 credits)

Any course, any subject. Credit Hours: 11.00

University Requirements

University Core Requirements

For a complete listing of University Core Course Selectives, visit the <u>Provost's Website</u>**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)

- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Civics Literacy Proficiency Requirement:

The Civics Literacy Proficiency activities are designed to develop civic knowledge of Purdue students in an effort to graduate a more informed citizenry.

Students will complete the Proficiency by passing a test of civic knowledge, and completing <u>one of three</u> paths:

- Attending six approved civics-related events and completing an assessment for each; or
- Completing 12 podcasts created by the Purdue Center for C-SPAN Scholarship and Engagement that use C-SPAN material and completing an assessment for each; or
- Earning a passing grade for one of **these approved courses** (or transferring in approved AP or departmental credit in lieu of taking a course)
  For more information visit the Civics Literacy Proficiency **website.**

Prerequisite Information:

For current pre-requisites for courses, click here.

Additional Requirements

Click here for Web Programming & Design Supplemental Information.

Cornerstone Certificate required. Click here for Cornerstone Certificate.

Program Requirements

Fall 1st Year

- CGT 11800 - Fundamentals Of Imaging Technology
- CGT 14100 - Internet Foundations Technologies And Development
- CGT 27000 - Introduction To Data Visualization
- MA 15800 - Precalculus- Functions And Trigonometry ♦
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity ♦ or
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World ♦

15 Credits

Spring 1st Year

- CGT 11600 - Geometric Modeling For Visualization And Communication
- CGT 17208 - User Experience Design Studio I: Fundamentals
- MA 16010 - Applied Calculus I ♦

- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity ♦ or
  Human Cultures: Behavioral/Social Science (BSS) Core
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World ♦

15 Credits

Fall 2nd Year

- CGT 21500 - Computer Graphics Programming I
- PHYS 22000 - General Physics
- Human Cultures: Humanities (HUM) Core - Credit Hours: 3.00
- Technical Elective - Credit Hours: 3.00
- Science, Technology & Society (STS) Core - Credit Hours: 3.00

16 Credits

Spring 2nd Year

- CGT 25001 - Computer Graphics Professional Practices I
- CGT 31500 - Computer Graphics Programming II
- ECON 21000 - Principles Of Economics ♦
- CGT Selective - Credit Hours: 3.00
- Science (SCI) Core - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

16 Credits

Fall 3rd Year

- CGT 35600 - Web Programming, Development And Data Integration
  Advanced English Selective - 1 Course (possible Cornerstone Selective)
- ENGL 20500 - Introduction To Creative Writing or
- ENGL 30400 - Advanced Composition or
- ENGL 41900 - Multimedia Writing or
- ENGL 42000 - Business Writing or
- ENGL 42100 - Technical Writing
- CGT Selective - Credit Hours: 3.00
- Humanities Elective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Spring 3rd Year

- CGT 45600 - Advanced Web Programming, Development And Data Integration
  Statistics Selective - 1 Course

- IET 31600 - Statistical Quality Control or
- PSY 20100 - Introduction To Statistics In Psychology or
- STAT 22500 - Introduction To Probability Models or
- STAT 30100 - Elementary Statistical Methods or
- STAT 35000 - Introduction To Statistics
- CGT Selective - Credit Hours: 3.00
- CGT Globalization Selective (possible Cornerstone Selective)- Credit Hours: 3.00
- Management Selective - Credit Hours: 3.00

15 Credits

Fall 4th Year

- CGT 35300 - Principles Of Interactive And Dynamic Media
- CGT 41101 - Contemporary Problems In Applied Computer Graphics I
- MGMT 45500 - Legal Background For Business I ♦
- Humanities Elective - Credit Hours: 3.00
- Technical Elective - Credit Hours: 3.00
- Elective - Credit Hours: 2.00

16 Credits

Spring 4th Year

- CGT 41201 - Contemporary Problems In Applied Computer Graphics II
- CGT 45001 - Computer Graphics Professional Practices II
- Elective - Credit Hours: 3.00
- Communication Selective (possible Cornerstone Selective)- Credit Hours: 3.00
- Technical Elective - Credit Hours: 3.00

12 Credits

Notes

- Students must earn a "C-" or better in all CGT courses.
- Pass/No Pass may be allowed for Electives or Technical Electives only.

- 120 semester credits & 2.00 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
- 32 Credit Hours of 30000 or 40000 level Purdue courses for graduation.
- Cornerstone Certificate is required with this major.

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

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

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Minor

Construction Graphics Minor

The BIM minor gives students access to the latest modeling technologies in the architecture, engineering and construction (AEC) industry. Students who complete the minor will gain knowledge in current and emerging graphics theories, practices and technologies associated with design, documentation, and modeling all areas within construction management and graphics.

Requirements for the Minor (11-12 credits)

Required Courses (11-12 credits)

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

Notes

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

Disclaimer

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The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

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.

Requirements for the Minor (14-15 credits)

Prerequisite Courses (2-3 credits)

- CGT 10301 - Geometric Modeling Applications or
- CGT 11000 - Technical Graphics Communications or
- CGT 16300 - Graphical Communication And Spatial Analysis
- An approved substitution

Required Courses (6 credits)

- CGT 11301 - Product Data Management
- CGT 20301 - Model-Based Definition

Selective - Choose Two (6 credits)

- CGT 21301 - Simulation And Visualization Applications
- CGT 30301 - Digital Manufacturing
- CGT 31301 - The Business Of Managing Digital Product Data

Notes

- The PLM minor is open only to any Purdue University West Lafayette campus major.
- All courses in the minor must be taken for a grade. A grade of "C-" or better is required in all classes. (P/NP is not an option)
- Only students pursuing four-year degrees are eligible for the PLM minor.
- 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.

Prerequisite Information:

For current pre-requisites for courses, click here.

Disclaimer

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

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

School of Engineering Technology

Overview

In Purdue's engineering technology degree programs, students learn about - and more important, practice - designing, building, testing, and refining in several engineering technology fields. From electrical to manufacturing to mechanical to industrial, engineering technology classes, labs, and projects help you develop processes and products to make a better world.

Faculty

School of Engineering Technology Website

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

Audio Engineering Technology, BS

About the Program

The Audio Engineering Technology major is part of the Electrical Engineering Technology program. The Electrical Engineering Technology program is accredited by the Engineering Technology Accreditation Commission of ABET, www.abet.org.

When you major in audio engineering technology at Purdue University, you'll learn to create sound by building a guitar or a pick-up. You will focus on designing, building, and testing a variety of technologies, such as microphone amplifiers, mixers and other signal processors, Bluetooth and other radio frequency channels, power amplifiers, and loud speakers. Then you will combine these audio elements to properly record, play, and reinforce sound in a public performance space.

Audio Engineering Technology Website

Audio Engineering Technology Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (55 credits)

Required Major Courses (55 credits)

- ENGT 18000 - Engineering Technology Foundations
- ENGT 18100 - Engineering Technology Applications
- ECET 17700 - Data Acquisition And Systems Control
- ECET 17900 - Introduction To Digital Systems
- ECET 22700 - DC And Pulse Electronics
- ECET 22900 - Concurrent Digital Systems
- ECET 27000 - Electronics Prototype Development And Construction
- ECET 27400 - Wireless Communications
- ECET 27700 - AC And Power Electronics
- ECET 27900 - Embedded Digital Systems
- ECET 31800 - Foundations Of Audio Electronics
- ECET 33700 - Continuous Systems Analysis And Design
- ECET 33900 - Digital Signal Processing
- ECET 37600 - Electrical Energy Systems
- ECET 38001 - Global Professional Issues In Engineering Technology
- ECET 38800 - Analog IC Applications
- ECET 42800 - Audio Electronics-Selected Topics
- Senior Capstone I Selective - Credit Hours: 3.00
- Senior Capstone II Selective - Credit Hours: 3.00

Other Departmental/Program Course Requirements (62 credits)

- CNIT 10500 - Introduction To C Programming ♦
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
- MA 16020 - Applied Calculus II
- MET 31800 - Applied Room Acoustics ♦
- PHYS 22000 - General Physics ♦ (satisfies Science for core)
- PHYS 22100 - General Physics ♦ (satisfies Science for core)
- TECH 12000 - Design Thinking In Technology ♦ (satisfies Science, Technology & Society and Information Literacy for core)
- THTR 16300 - Introduction To Sound Design And Technology ♦
- THTR 35300 - Theatre Audio Techniques I ♦

   Audio Production Selective:
- THTR 25300 - Survey Of Audio Production ♦ or
- THTR 26300 - Introduction To Sound Studios ♦

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

- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity ♦

Freshman Speech Selective (satisfies Oral Communication for core):
- COM 11400 - Fundamentals Of Speech Communication ♦ or
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World ♦

Industrial Economics Selective:
- AGEC 33000 - Management Methods For Agricultural Business or
- AGEC 35200 - Quantitative Techniques For Firm Decision Making or
- IET 33400 - Economic Analysis For Technology Systems or
- MGMT 20000 - Introductory Accounting or
- MGMT 21200 - Business Accounting

Statistics Selective:
- STAT 22500 - Introduction To Probability Models ♦ or
- STAT 30100 - Elementary Statistical Methods ♦

Theater Production Selective:
- THTR 36800 - Theatre Production II ♦ or
- DANC 36800 - Dance Sound Design ♦

Written Communication Selective:
- ENGL 20500 - Introduction To Creative Writing ♦ or
- ENGL 30400 - Advanced Composition ♦ or
- ENGL 42000 - Business Writing ♦ or
- ENGL 42100 - Technical Writing ♦ or
- ENGL 42400 - Writing For High Technology Industries ♦

- **Business Selective** - Credit Hours: 3.00
  - Human Cultures: Behavioral/Social Sciences requirement for core can be satisfied through the Business Selective or the General Education Selective
- **General Education Selective** - Credit Hours: 3.00
  - Human Cultures: Behavioral/Social Sciences requirement for core can be satisfied through the Business Selective or the General Education Selective
  - Human Cultures: Humanities requirement for core can be satisfied through a Theater and Sound Selective or a General Education Selective
- **Oral Communication Selective** - Credit Hours: 3.00
- **Theater and Sound Selectives** - Credit Hours: 6.00
  - Human Cultures: Humanities requirement for core can be satisfied through a Theater and Sound Selective or a General Education Selective
- **Intercultural Requirement** - 0.0 Credit Hours
- **Professional Requirement/Internship** - 0.0 Credit Hours

Electives + (3 credits)

Any non-remedial course.

University Requirements

University Core Requirements

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Civics Literacy Proficiency Requirement:

The Civics Literacy Proficiency activities are designed to develop civic knowledge of Purdue students in an effort to graduate a more informed citizenry.

Students will complete the Proficiency by passing a test of civic knowledge, and completing <u>one of three</u> paths:

- Attending six approved civics-related events and completing an assessment for each; or
- Completing 12 podcasts created by the Purdue Center for C-SPAN Scholarship and Engagement that use C-SPAN material and completing an assessment for each; or
- Earning a passing grade for one of **these approved courses** (or transferring in approved AP or departmental credit in lieu of taking a course)
  For more information visit the Civics Literacy Proficiency **website.**

Prerequisite Information:

For current pre-requisites for courses, click here.

Additional Degree Requirements

Click here for Audio Engineering Technology Supplemental Information.

Program Requirements

Fall 1st Year

- CNIT 10500 - Introduction To C Programming ♦
- ENGT 18000 - Engineering Technology Foundations
- ENGT 18100 - Engineering Technology Applications
- MA 16010 - Applied Calculus I
- TECH 12000 - Design Thinking In Technology ♦

- ENGL 10600 - First-Year Composition ♦ or

- ENGL 10800 - Accelerated First-Year Composition ♦ or
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity ♦

16 Credits

Spring 1st Year

- ECET 17700 - Data Acquisition And Systems Control
- ECET 17900 - Introduction To Digital Systems
- MA 16020 - Applied Calculus II
- PHYS 22000 - General Physics ♦

- COM 11400 - Fundamentals Of Speech Communication ♦ or
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World ♦

16 Credits

Fall 2nd Year

- ECET 22700 - DC And Pulse Electronics
- PHYS 22100 - General Physics ♦
- ECET 22900 - Concurrent Digital Systems
- THTR 16300 - Introduction To Sound Design And Technology ♦

- ENGL 20500 - Introduction To Creative Writing ♦ or
- ENGL 30400 - Advanced Composition ♦ or
- ENGL 42000 - Business Writing ♦ or
- ENGL 42100 - Technical Writing ♦ or
- ENGL 42400 - Writing For High Technology Industries ♦

15 Credits

Spring 2nd Year

- ECET 27000 - Electronics Prototype Development And Construction
- ECET 27700 - AC And Power Electronics
- ECET 31800 - Foundations Of Audio Electronics
- Oral Communication Selective - Credit Hours: 3:00
- Theater and Sound Selective - Credit Hours: 3:00

15 Credits

Fall 3rd Year

- ECET 27900 - Embedded Digital Systems
- ECET 37600 - Electrical Energy Systems

- ECET 38001 - Global Professional Issues In Engineering Technology
- ECET 38800 - Analog IC Applications
- THTR 25300 - Survey Of Audio Production ♦ or
- THTR 26300 - Introduction To Sound Studios ♦

15 Credits

Spring 3rd Year

- ECET 27400 - Wireless Communications
- ECET 33700 - Continuous Systems Analysis And Design
- MET 31800 - Applied Room Acoustics

  Statistics Selective
- STAT 22500 - Introduction To Probability Models ♦ or
- STAT 30100 - Elementary Statistical Methods ♦

- THTR 36800 - Theatre Production II ♦ or
- DANC 36800 - Dance Sound Design ♦
- Business Selective - Credit Hours: 3.00

16 Credits

Fall 4th Year

- ECET 33900 - Digital Signal Processing
- THTR 35300 - Theatre Audio Techniques I ♦
- Senior Capstone I Selective - Credit Hours: 3.00
- General Education Selective - Credit Hours: 3.00
- AGEC 33000 - Management Methods For Agricultural Business or
- AGEC 35200 - Quantitative Techniques For Firm Decision Making or
- IET 33400 - Economic Analysis For Technology Systems or
- MGMT 20000 - Introductory Accounting or
- MGMT 21200 - Business Accounting

15 Credits

Spring 4th Year

- ECET 42800 - Audio Electronics-Selected Topics
- Senior Capstone II Selective - Credit Hours: 3.00
- Theater and Sound Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

12 Credits

Notes

- Human Cultures Behavioral/Social Science for University Core may be selected to satisfy either the Business Selective or a General Education Selective requirement.
- Human Cultures Humanities for University Core Curriculum may be selected to satisfy either a Theater and Sound Selective or a General Education Selective requirement.
- Students must earn a "D-" or better in all courses.
- Courses at Purdue University may only be attempted a maximum of three (3) times, including W, WF, I, IF and all graded attempts.
- Senior Capstone Selective I/II and 12 hours of ECET lab-based courses at the 300-level or higher must be taken at Purdue University West Lafayette and/or Polytechnic Statewide.
- 32 credit hours of 300-level or higher courses must be completed at Purdue University.
- The Audio Engineering Technology (AUET) major is within the Electrical Engineering Technology program.
- Intercultural Requirement (ungraded) must be completed.
- Professional Requirement (ungraded) must be completed.

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

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

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Automation and Systems Integration Engineering Technology, BS

About the Program

The Automation & Systems Integration Engineering Technology major is part of the Manufacturing Engineering Technology program. The Manufacturing Engineering Technology program is accredited by the Engineering Technology Accreditation Commission of ABET, www.abet.org.

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.

Automation and Systems Integration Engineering Technology (website)

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (120 credits)

Required Major Courses (59 credits)

- ENGT 18000 - Engineering Technology Foundations
- ENGT 18100 - Engineering Technology Applications
- MET 10200 - Production Design And Specifications
- MET 11100 - Applied Statics
- MET 11300 - Mechanics Applications
- MET 23000 - Fluid Power
- MET 24500 - Manufacturing Systems
- MET 28400 - Introduction To Industrial Controls
- MFET 24800 - Introduction To Robotics
- MFET 34400 - Automated Manufacturing Processes
- MFET 37400 - Manufacturing Integration I
- Materials and Processes Selective - Credit Hours: 3.00 ♦
- Continuous Control Selective - Credit Hours: 3.00 ♦
- Intercultural Requirement - Credit Hours: 0.00
- Professional Requirement - Credit Hours: 0.00

ASET Courses (24 credits, included in required major courses total)

- ECET 33700 - Continuous Systems Analysis And Design
- CNIT 10500 - Introduction To C Programming
- Manufacturing Selective - Credit Hours: 3.00
- Manufacturing/Controls/Graphic Selective - Credit Hours: 3.00 ♦
- Materials and Processes Selective - Credit Hours: 3.00 ♦
- CNIT or CS Selective - Credit Hours: 3.00
- Senior Capstone Selective I - Credit Hours: 3.00
- Senior Capstone Selective II - Credit Hours: 3.00

Other Departmental/Program Course Requirements (57 credits)

- CHM 11100 - General Chemistry
- ECET 22400 - Electronic Systems
- ECET 38001 - Global Professional Issues In Engineering Technology
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
- MA 16020 - Applied Calculus II

- TECH 12000 - Design Thinking In Technology ♦ (satisfies Information Literacy and Science, Technology & Society for core)
- IET 33400 - Economic Analysis For Technology Systems

Freshman Composition Selective (satisfies Written Communication for core)
- ENGL 10600 - First-Year Composition or
- ENGL 10800 - Accelerated First-Year Composition or
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity

Freshman Speech Selective (satisfies Oral Communication for core)
- COM 11400 - Fundamentals Of Speech Communication
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World

Technical Writing Selective
- ENGL 42100 - Technical Writing ♦ or
- ENGL 42400 - Writing For High Technology Industries ♦

Communication Selective
- COM 31500 - Speech Communication Of Technical Information or
- COM 32000 - Small Group Communication or
- COM 41500 - Discussion Of Technical Problems or
- EDPS 31500 - Collaborative Leadership: Interpersonal Skills

Physics Selective (satisfies for Science for core)
- PHYS 17200 - Modern Mechanics ♦ or
- PHYS 22000 - General Physics ♦

Statistics or Quality Selective
- STAT 30100 - Elementary Statistical Methods ♦ or
- IET 31600 - Statistical Quality Control ♦

- Science Selective (satisfies Science for core) - Credit Hours: 3.00
- Human Cultures: Humanities Foundation Selective (satisfies Human Cultures Humanities for core) - Credit Hours: 3.00
- Human Cultures: Behavior/Social Sciences Foundation Selective (satisfies Human Cultures: Behavioral Sciences for core) - Credit Hours: 3.00
- Humanities/Social Science Elective - Credit Hours: 3.00
- Technical Elective - Credit Hours: 3.00

Electives (4 credits)

University Requirements

University Core Requirements

For a complete listing of University Core Course Selectives, visit the <u>Provost's Website</u>**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)

- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Civics Literacy Proficiency Requirement:

The Civics Literacy Proficiency activities are designed to develop civic knowledge of Purdue students in an effort to graduate a more informed citizenry.

Students will complete the Proficiency by passing a test of civic knowledge, and completing <u>one of three</u> paths:

- Attending six approved civics-related events and completing an assessment for each; or
- Completing 12 podcasts created by the Purdue Center for C-SPAN Scholarship and Engagement that use C-SPAN material and completing an assessment for each; or
- Earning a passing grade for one of **these approved courses** (or transferring in approved AP or departmental credit in lieu of taking a course)
  For more information visit the Civics Literacy Proficiency **website.**

Prerequisite Information:

For current pre-requisites for courses, click here.

Additional Requirements

Click here for Automation and Systems Integration Engineering Technology Supplemental Information.

Program Requirements

Fall 1st Year

- CNIT 10500 - Introduction To C Programming
- ENGT 18000 - Engineering Technology Foundations
- ENGT 18100 - Engineering Technology Applications
- MA 16010 - Applied Calculus I

- ENGL 10600 - First-Year Composition or
- ENGL 10800 - Accelerated First-Year Composition or
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity

- MET 14300 - Materials And Processes I ♦ or
- MET 14400 - Materials And Processes II
  - ♦

16 Credits

Spring 1st Year

- MA 16020 - Applied Calculus II
- MET 11100 - Applied Statics
- TECH 12000 - Design Thinking In Technology ♦
- Humanities Foundation Selective - Credit Hours: 3.00
- Materials and Processes Selective - Credit Hours: 3.00

15 Credits

Fall 2nd Year

- ECET 22400 - Electronic Systems
- MET 11300 - Mechanics Applications
- CHM 11100 - General Chemistry ♦
- Behavioral/Social Science Foundation Selective - Credit Hours: 3.00

- ENGL 10600 - First-Year Composition
  or
- ENGL 10800 - Accelerated First-Year Composition
  or
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity

- CGT 16300 - Graphical Communication And Spatial Analysis ♦ or
- CGT 10301 - Geometric Modeling Applications ♦ or
- CGT 11000 - Technical Graphics Communications ♦ or
- ENGT 10500 - Industrial Technology Introduction To Design ♦

15 Credits

Spring 2nd Year

- MET 10200 - Production Design And Specifications
- MET 24500 - Manufacturing Systems
- MET 28400 - Introduction To Industrial Controls
- Physics Selective - Credit Hours: 4.00 ♦
- Elective - Credit Hours: 1.00

14 Credits

Fall 3rd Year

- MET 23000 - Fluid Power
- MFET 34400 - Automated Manufacturing Processes

- Technical Writing Selective + - Credit Hours: 3.00 ♦
- Science Selective - Credit Hours: 3.00
- Statistics or Quality Selective - Credit Hours: 3.00 ♦

15 Credits

Spring 3rd Year

- MFET 37400 - Manufacturing Integration I
- MFET 24800 - Introduction To Robotics
- ECET 33700 - Continuous Systems Analysis And Design
- Manufacturing Selective - Credit Hours: 3.00
- CNIT or CS Selective - Credit Hours: 3.00

15 Credits

Fall 4th Year

- IET 33400 - Economic Analysis For Technology Systems
- ECET 38001 - Global Professional Issues In Engineering Technology
- Manufacturing/Controls/Graphics Selective - Credit Hours: 3.00 ♦
- Continuous Controls Selective - Credit Hours: 3.00 ♦
- Senior Capstone Selective I - Credit Hours: 3.00

15 Credits

Spring 4th Year

- Senior Capstone Selective II - Credit Hours: 3.00
- Communications Selective + -   Credit Hours: 3.00
- Humanities/Social Science Selective - Credit Hours: 3.00
- Technical Elective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Notes

- Students must earn a "D-" or better in all courses.
- MFET majors do not allow P/NP grading for any classes that are used to meet degree requirements, all degree requirements must be taken for a grade.
- Courses at Purdue University may only be attempted a maximum of three (3) times, including W, WF, I, IF, and all graded attempts.
- 32 credit hours of 300-level or higher courses must be completed at Purdue University.
- + denotes options Cornerstone Certificate course.

- Complete a Professional Requirement.
- Complete an Intercultural Requirement.

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

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

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Computer Engineering Technology, BS

About the Program

The Computer Engineering Technology major within the Electrical Engineering Technology program focuses electives on digital electronics, digital signal processing, and embedded micro-computers.

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

Computer Engineering Technology

Computer Engineering Technology Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (52 credits)

Required Major Courses (52 credits)

- ENGT 18000 - Engineering Technology Foundations
- ENGT 18100 - Engineering Technology Applications
- ECET 17700 - Data Acquisition And Systems Control
- ECET 17900 - Introduction To Digital Systems
- ECET 22700 - DC And Pulse Electronics
- ECET 22900 - Concurrent Digital Systems

- ECET 27000 - Electronics Prototype Development And Construction
- ECET 27400 - Wireless Communications
- ECET 27900 - Embedded Digital Systems
- ECET 38001 - Global Professional Issues In Engineering Technology
- ECET 32900 - Advanced Embedded Digital Systems
- ECET 33900 - Digital Signal Processing
- ECET 34900 - Advanced Digital Systems
- ECET 43900 - Advanced Digital Signal Processing

Computer Engineering Technology Selective
- ECET 35901 - Computer Based Data Acquisition Applications or
- ECET 36900 - Applied Computer Vision For Sensing And Automation or
- ECET 42800 - Audio Electronics-Selected Topics
- ECET Selective - Credit Hours: 3.00
- Senior Capstone Selective I - Credit Hours: 3.00
- Senior Capstone Selective II - Credit Hours: 3.00

Other Departmental/Program Course Requirements (65 credits)

- CNIT 10500 - Introduction To C Programming ♦
- CNIT 17600 - Information Technology Architectures ♦
- CNIT 18000 - Introduction To Systems Development ♦
- CNIT 25501 - Object-Oriented Programming Introduction ♦
- CNIT 34400 - Network Engineering Fundamentals ♦
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
- MA 16020 - Applied Calculus II
- PHYS 22000 - General Physics ♦ (satisfies Science for core)
- PHYS 22100 - General Physics ♦ (satisfies Science for core)
- TECH 12000 - Design Thinking In Technology ♦ (satisfies Information Literacy and Science, Technology & Society for core)

English Communication Selective (satisfies Written Communication for core):
- ENGL 10600 - First-Year Composition ♦ or
- ENGL 10800 - Accelerated First-Year Composition ♦ or
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity ♦

Freshman Speech Selective (satisfies Oral Communication for core):
- COM 11400 - Fundamentals Of Speech Communication ♦ or
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World ♦

- **Industrial Economics Selective**:   AGEC 33000 - Management Methods For Agricultural Business or
- AGEC 35200 - Quantitative Techniques For Firm Decision Making or
- IET 33400 - Economic Analysis For Technology Systems or
- MGMT 20000 - Introductory Accounting or
- MGMT 21200 - Business Accounting

Statistics Selective:
- STAT 22500 - Introduction To Probability Models ♦ or
- STAT 30100 - Elementary Statistical Methods ♦

Written Communication Selective:
- ENGL 20500 - Introduction To Creative Writing ♦ or
- ENGL 30400 - Advanced Composition ♦ or
- ENGL 42000 - Business Writing ♦ or
- ENGL 42100 - Technical Writing ♦ or
- ENGL 42400 - Writing For High Technology Industries ♦

- **Business Selective** - Credit Hours: 3.00 (may satisfy Human Culture: Behavioral/Social Sciences for core)
- **General Education Selectives** - Credit Hours: 12.00 (may satisfy Human Culture: Humanities and Human Culture: Behavioral/Social Sciences for core)
- **Oral Communication Selectives** - Credit Hours: 3.00
- **Intercultural Requirement** - Credit Hours: 0.00
- **Professional Requirement** - Credit Hours: 0.00

Elective (3 credits)

- Elective - Credit Hours: 3.00

University Requirements

University Core Requirements

For a complete listing of University Core Course Selectives, visit the <u>Provost's Website</u>.

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Civics Literacy Proficiency Requirement:

The Civics Literacy Proficiency activities are designed to develop civic knowledge of Purdue students in an effort to graduate a more informed citizenry.

Students will complete the Proficiency by passing a test of civic knowledge, and completing <u>one of three</u> paths:

- Attending six approved civics-related events and completing an assessment for each; or
- Completing 12 podcasts created by the Purdue Center for C-SPAN Scholarship and Engagement that use C-SPAN material and completing an assessment for each; or

- Earning a passing grade for one of **these approved courses** (or transferring in approved AP or departmental credit in lieu of taking a course)

  For more information visit the Civics Literacy Proficiency **website.**

Prerequisite Information:

For current pre-requisites for courses, click here.

Additional Degree Requirements

Computer Engineering Technology Supplemental Information

Program Requirements

Fall 1st Year

- ENGT 18000 - Engineering Technology Foundations
- ENGT 18100 - Engineering Technology Applications
- CNIT 10500 - Introduction To C Programming ♦
- MA 16010 - Applied Calculus I
- TECH 12000 - Design Thinking In Technology ♦

  English Composition Selective:
- ENGL 10600 - First-Year Composition ♦ or
- ENGL 10800 - Accelerated First-Year Composition ♦ or
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity ♦

16 Credits

Spring 1st Year

- ECET 17700 - Data Acquisition And Systems Control
- ECET 17900 - Introduction To Digital Systems
- MA 16020 - Applied Calculus II
- PHYS 22000 - General Physics ♦

  Freshman Speech Selective:
- COM 11400 - Fundamentals Of Speech Communication ♦ or
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World ♦

16 Credits

Fall 2nd Year

- ECET 22700 - DC And Pulse Electronics
- ECET 22900 - Concurrent Digital Systems

- PHYS 22100 - General Physics ♦

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

16 Credits

Spring 2nd Year

- ECET 27000 - Electronics Prototype Development And Construction
- ECET 27400 - Wireless Communications
- ECET 27900 - Embedded Digital Systems
- CNIT 18000 - Introduction To Systems Development ♦

  Written Communication Selective:
- ENGL 20500 - Introduction To Creative Writing ♦
- ENGL 30400 - Advanced Composition ♦
- ENGL 42000 - Business Writing ♦ or
- ENGL 42100 - Technical Writing ♦ or
- ENGL 42400 - Writing For High Technology Industries ♦

15 Credits

Fall 3rd Year

- CNIT 25501 - Object-Oriented Programming Introduction ♦
- ECET 34900 - Advanced Digital Systems
- ECET 33900 - Digital Signal Processing
- ECET 38001 - Global Professional Issues In Engineering Technology
- General Education Selective - Credit Hours: 3.00

15 Credits

Spring 3rd Year

- ECET 32900 - Advanced Embedded Digital Systems
- ECET 43900 - Advanced Digital Signal Processing
- CNIT 17600 - Information Technology Architectures ♦

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

15 Credits

Fall 4th Year

- Senior Capstone Selective I - Credit Hours: 3.00
- General Education Selective - Credit Hours: 3.00
- CNIT 34400 - Network Engineering Fundamentals ♦

- ECET 35901 - Computer Based Data Acquisition Applications or
- ECET 36900 - Applied Computer Vision For Sensing And Automation or
- ECET 42800 - Audio Electronics-Selected Topics

- AGEC 33000 - Management Methods For Agricultural Business or
- AGEC 35200 - Quantitative Techniques For Firm Decision Making or
- IET 33400 - Economic Analysis For Technology Systems or
- MGMT 20000 - Introductory Accounting or
- MGMT 21200 - Business Accounting

15 Credits

Spring 4th Year

- Senior Capstone Selective II - Credit Hours: 3.00
- ECET Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

  Statistics Selective:
- STAT 22500 - Introduction To Probability Models ♦ or
- STAT 30100 - Elementary Statistical Methods ♦

12 Credits

Notes

- 2.0 Graduation GPA is required for the Bachelor of Science degree.
- Students must earn a "D-" or better in all courses. Pass/no pass grading allowed for General Education Selectives and Electives (up to 15 hrs).
- Courses at Purdue University may only be attempted a maximum of three (3) times, including W, WF, I, IF and all graded attempts.
- Senior Capstone Selective I/II and 12 hours of ECET lab-based courses at the 300-level or higher must be taken at Purdue University West Lafayette and/or Polytechnic Statewide.
- 32 credit hours of 300-level or higher courses must be completed at Purdue University.

- The Computer Engineering Technology (CEGT) major is within the Electrical Engineering Technology program.

- Intercultural Requirement (ungraded) must be completed.
- Professional Requirement (ungraded) must be completed.

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

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

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Electrical Engineering Technology, BS

About the Program

The Electrical Engineering Technology major is part of the Electrical Engineering Technology program. The Electrical Engineering Technology program is accredited by the Engineering Technology Accreditation Commission of ABET, www.abet.org.

When you study electrical engineering technology, you study the lifeblood of today's technology: electronics and computers. Electronics technology is a part of most everything society relies on, from air conditioning to airplanes, and from trains to televisions. And because technology is constantly evolving, you will be engaged in learning methods that will help you adapt to and embrace new technologies and their uses.

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

Electrical Engineering Technology Website

Electrical Engineering Technology Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (55 credits)

Required Major Courses (55 credits)

- ENGT 18000 - Engineering Technology Foundations
- ENGT 18100 - Engineering Technology Applications
- ECET 17700 - Data Acquisition And Systems Control
- ECET 17900 - Introduction To Digital Systems
- ECET 22700 - DC And Pulse Electronics
- ECET 22900 - Concurrent Digital Systems
- ECET 27000 - Electronics Prototype Development And Construction

- ECET 27400 - Wireless Communications
- ECET 27700 - AC And Power Electronics
- ECET 27900 - Embedded Digital Systems
- ECET 37600 - Electrical Energy Systems
- ECET 38001 - Global Professional Issues In Engineering Technology
- ECET Advanced Analysis Selective - Credit Hours: 3.00
- ECET Selectives - Credit Hours: 12.00
- Senior Capstone I Selective - Credit Hours: 3.00
- Senior Capstone II Selective - Credit Hours: 3.00

Other Departmental/Program Course Requirements (62 credits)

- CNIT 10500 - Introduction To C Programming ♦
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
- MA 16020 - Applied Calculus II
- PHYS 22000 - General Physics ♦ (satisfies Science for core)
- PHYS 22100 - General Physics ♦ (satisfies Science for core)
- TECH 12000 - Design Thinking In Technology ♦ (satisfies Information Literacy and Science, Technology & Society for core)
  English Composition Selective (satisfies Written Communication for core):
- ENGL 10600 - First-Year Composition or
- ENGL 10800 - Accelerated First-Year Composition or
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity
  Freshman Speech Selective (satisfies Oral Communication for core)
- COM 11400 - Fundamentals Of Speech Communication or
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World

  Written Communication Selective
- ENGL 20500 - Introduction To Creative Writing or
- ENGL 30400 - Advanced Composition or
- ENGL 42000 - Business Writing ♦ or
- ENGL 42100 - Technical Writing ♦ or
- ENGL 42400 - Writing For High Technology Industries
  Statistics Selective
- STAT 22500 - Introduction To Probability Models ♦ or
- STAT 30100 - Elementary Statistical Methods ♦
  Industrial Economics Selective
- AGEC 33000 - Management Methods For Agricultural Business or
- AGEC 35200 - Quantitative Techniques For Firm Decision Making or
- IET 33400 - Economic Analysis For Technology Systems or
- MGMT 20000 - Introductory Accounting or
- MGMT 21200 - Business Accounting
- **Business Selective** - Credit Hours: 3.00
- **General Education Selectives**: 12.00
  - One must satisfy the Human Cultures: Humanities requirement for core - Credit Hours: 3.00
  - Human Cultures: Behavioral/Social Sciences requirement for core can be met either through a General Education or Business Selective - Credit Hours: 3.00
- **Oral Communication Selective** - Credit Hours: 3.00

- **Technical Selectives** (9 additional credit hours of *technical courses*, including additional ECET courses) - Credit Hours 9.00
- **Intercultural Requirement** - 0.0 Credit Hours
- **Professional Requirement** - 0.0 Credit Hours

Elective (3 credits)

Any non-remedial course.

University Requirements

University Core Requirements

For a complete listing of University Core Course Selectives, visit the <u>Provost's Website</u>**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Civics Literacy Proficiency Requirement:

The Civics Literacy Proficiency activities are designed to develop civic knowledge of Purdue students in an effort to graduate a more informed citizenry.

Students will complete the Proficiency by passing a test of civic knowledge, and completing <u>one of three</u> paths:

- Attending six approved civics-related events and completing an assessment for each; or
- Completing 12 podcasts created by the Purdue Center for C-SPAN Scholarship and Engagement that use C-SPAN material and completing an assessment for each; or
- Earning a passing grade for one of **these approved courses** (or transferring in approved AP or departmental credit in lieu of taking a course)
  For more information visit the Civics Literacy Proficiency **website.**

Prerequisite Information:

For current pre-requisites for courses, click here.

Additional Requirements

Click here for Electrical Engineering Technology Supplemental Information.

Program Requirements

Fall 1st Year

- CNIT 10500 - Introduction To C Programming ♦
- ENGT 18000 - Engineering Technology Foundations
- ENGT 18100 - Engineering Technology Applications
- MA 16010 - Applied Calculus I
- TECH 12000 - Design Thinking In Technology ♦

- ENGL 10600 - First-Year Composition ♦ or
- ENGL 10800 - Accelerated First-Year Composition ♦ or
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity ♦

16 Credits

Spring 1st Year

- ECET 17700 - Data Acquisition And Systems Control
- ECET 17900 - Introduction To Digital Systems
- MA 16020 - Applied Calculus II
- PHYS 22000 - General Physics ♦

- COM 11400 - Fundamentals Of Speech Communication ♦ or
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World ♦

16 Credits

Fall 2nd Year

- ECET 22700 - DC And Pulse Electronics
- ECET 22900 - Concurrent Digital Systems
- PHYS 22100 - General Physics ♦

- ENGL 20500 - Introduction To Creative Writing ♦ or
- ENGL 30400 - Advanced Composition ♦ or
- ENGL 42000 - Business Writing ♦ or
- ENGL 42100 - Technical Writing ♦ or
- ENGL 42400 - Writing For High Technology Industries ♦

- General Education Selective - Credit Hours: 3.00

16 Credits

Spring 2nd Year

- ECET 27000 - Electronics Prototype Development And Construction
- ECET 27400 - Wireless Communications
- ECET 27700 - AC And Power Electronics
- General Education Selective - Credit Hours: 3.00
- Oral Communication Selective - Credit Hours: 3.00

15 Credits

Fall 3rd Year

- ECET 37600 - Electrical Energy Systems
- ECET 38001 - Global Professional Issues In Engineering Technology

- STAT 22500 - Introduction To Probability Models ♦ or
- STAT 30100 - Elementary Statistical Methods ♦

- ECET Advanced Analysis Selective - Credit Hours: 3.00
- ECET Selective - Credit Hours: 3.00

15 Credits

Spring 3rd Year

- ECET 27900 - Embedded Digital Systems

- AGEC 33000 - Management Methods For Agricultural Business or
- AGEC 35200 - Quantitative Techniques For Firm Decision Making or
- IET 33400 - Economic Analysis For Technology Systems or
- MGMT 20000 - Introductory Accounting or
- MGMT 21200 - Business Accounting

- ECET Selective - Credit Hours: 3.00
- Business Selective - Credit Hours: 3.00
- Technical Selective - Credit Hours: 3.00

15 Credits

Fall 4th Year

- Senior Capstone I Selective - Credit Hours: 3.00
- 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

- Senior Capstone II Selective - Credit Hours: 3.00
- ECET Selective - Credit Hours: 3.00
- General Education Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

12 Credits

Notes

- Human Cultures Behavioral/Social Science for University Core may be selected to satisfy either the Business Selective or a General Education Selective requirement.
- 2.0 Graduation GPA is required for the Bachelor of Science degree.
- Students must earn a "D-" or better in all courses. Pass/no pass grading allowed for General Education Selectives and Electives (up to 15 hrs).
- Courses at Purdue University may only be attempted a maximum of three (3) times, including W, WF, I, IF and all graded attempts.
- Senior Capstone Selective I/II and 12 hours of ECET lab-based courses at the 300-level or higher must be taken at Purdue University West Lafayette and/or Polytechnic Statewide.
- 32 credit hours of 300-level or higher courses must be completed at Purdue University.

- The Electrical Engineering Technology (EETC) major is within the Electrical Engineering Technology program.

- Intercultural Requirement (ungraded) must be completed.
- Professional Requirement (ungraded) must be completed.
- Professional and Intercultural requirements will be satisfied by comletion of experiences, assessments, and courses that are pre-approved by the EET Curriculum Subcommittee. Approved courses may fulfill other degree requirements.
- Choose from list: Refer to the Electrical Engineering Technology Supplemental Information for a complete list of selectives and requirements (including ungraded requirement.

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

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

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Energy Engineering Technology, BS

The Energy Engineering Technology major within the Electrical Engineering Technology Degree Program focuses elective classes on the efficient generation and use of energy in electrical systems. Smart Grid, power distribution, industrial codes and standards, efficient motor drives, and sustainable energy concepts are taught along with environmental policy issues.

Energy Engineering Technology Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (55 credits)

Required Major Courses (55 credits)

- ENGT 18000 - Engineering Technology Foundations
- ENGT 18100 - Engineering Technology Applications
- ECET 17700 - Data Acquisition And Systems Control
- ECET 17900 - Introduction To Digital Systems
- ECET 22700 - DC And Pulse Electronics
- ECET 22900 - Concurrent Digital Systems
- ECET 27000 - Electronics Prototype Development And Construction
- ECET 27400 - Wireless Communications
- ECET 27700 - AC And Power Electronics
- ECET 27900 - Embedded Digital Systems
- ECET 37600 - Electrical Energy Systems
- ECET 38001 - Global Professional Issues In Engineering Technology
- ECET 33300 - Power Electronics In Energy Systems
- ECET 37300 - Applied Electronic Drives
- ECET 38600 - Building Electrical Codes And Standard Practices
- ECET 43600 - Electrical Power Transmissions, Distribution, And Smart Control
- ECET Advanced Analysis Selective - Credit Hours: 3.00
- Senior Capstone Selective I - Credit Hours: 3.00
- Senior Capstone Selective II - Credit Hours: 3.00

Other Departmental/Program Course Requirements (62 credits)

- CNIT 10500 - Introduction To C Programming ♦
- MA 16010 - Applied Calculus I
- MA 16020 - Applied Calculus II
- MET 22000 - Heat And Power
- PHYS 22000 - General Physics ♦ (satisfies Science for core)
- PHYS 22100 - General Physics ♦ (satisfies Science for core)
- POL 22300 - Introduction To Environmental Policy (satisfies Behavioral/Social Sciences for core)

- POL 32700 - Global Green Politics
- TECH 12000 - Design Thinking In Technology ♦ (satisfies Science, Technology and Society and Information Literacy for core)

Sustainability Engineering Technology Selective:
- CE 35500 - Engineering Environmental Sustainability ♦ or
- MET 53000 - Facilities Engineering Technology ♦

English Composition Selective (satisfies Written Communication for core):
- ENGL 10600 - First-Year Composition ♦ or
- ENGL 10800 - Accelerated First-Year Composition ♦ or
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity ♦

Freshmen Speech Selective (satisfies Oral Communication for core):
- COM 11400 - Fundamentals Of Speech Communication ♦ or
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World ♦

Written Composition Selective:
- ENGL 20500 - Introduction To Creative Writing ♦ or
- ENGL 30400 - Advanced Composition ♦ or
- ENGL 42000 - Business Writing ♦ or
- ENGL 42100 - Technical Writing ♦ or
- ENGL 42400 - Writing For High Technology Industries ♦

Statistics Selective:
- STAT 22500 - Introduction To Probability Models ♦ or
- STAT 30100 - Elementary Statistical Methods ♦

Industrial Economics Selective:
- AGEC 33000 - Management Methods For Agricultural Business or
- AGEC 35200 - Quantitative Techniques For Firm Decision Making or
- IET 33400 - Economic Analysis For Technology Systems or
- MGMT 20000 - Introductory Accounting or
- MGMT 21200 - Business Accounting

- Oral Communication Selective - Credit Hours: 3.00
- Business Selective - Credit Hours: 3.00
- General Education Selectives - Credit Hours: 6.00
- Energy Related Technical Selective - Credit Hours: 3.00
- Intercultural Requirement - Credit Hours: 0.00
- Professional Requirement - Credit Hours: 0.00

Elective (3 credits)

University Requirements

University Core Requirements

For a complete listing of University Core Course Selectives, visit the <u>Provost's Website</u>**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Civics Literacy Proficiency Requirement:

The Civics Literacy Proficiency activities are designed to develop civic knowledge of Purdue students in an effort to graduate a more informed citizenry.

Students will complete the Proficiency by passing a test of civic knowledge, and completing <u>one of three</u> paths:

- Attending six approved civics-related events and completing an assessment for each; or
- Completing 12 podcasts created by the Purdue Center for C-SPAN Scholarship and Engagement that use C-SPAN material and completing an assessment for each; or
- Earning a passing grade for one of **these approved courses** (or transferring in approved AP or departmental credit in lieu of taking a course)
  For more information visit the Civics Literacy Proficiency **website.**

Prerequisite Information:

For current pre-requisites for courses, click here.

Additional Degree Requirements

Click for Energy Engineering Technology Supplemental Information .

Program Requirements

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

Fall 1st Year

- CNIT 10500 - Introduction To C Programming ♦
- ENGT 18000 - Engineering Technology Foundations
- ENGT 18100 - Engineering Technology Applications
- MA 16010 - Applied Calculus I
- TECH 12000 - Design Thinking In Technology ♦

- ENGL 10600 - First-Year Composition ♦ or
- ENGL 10800 - Accelerated First-Year Composition ♦ or
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity ♦

16 Credits

Spring 1st Year

- ECET 17700 - Data Acquisition And Systems Control
- ECET 17900 - Introduction To Digital Systems
- MA 16020 - Applied Calculus II
- PHYS 22000 - General Physics ♦

- COM 11400 - Fundamentals Of Speech Communication ♦ or
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World ♦

16 Credits

Fall 2nd Year

- ECET 22700 - DC And Pulse Electronics ♦
- ECET 22900 - Concurrent Digital Systems
- PHYS 22100 - General Physics ♦
- POL 22300 - Introduction To Environmental Policy ♦
- Oral Communication Selective - Credit Hours: 3.00

16 Credits

Spring 2nd Year

- ECET 27000 - Electronics Prototype Development And Construction
- ECET 27900 - Embedded Digital Systems
- ECET 27700 - AC And Power Electronics
- POL 32700 - Global Green Politics ♦

- ENGL 20500 - Introduction To Creative Writing ♦ or
- ENGL 30400 - Advanced Composition ♦ or
- ENGL 42000 - Business Writing ♦ or
- ENGL 42100 - Technical Writing ♦ or
- ENGL 42400 - Writing For High Technology Industries ♦

15 Credits

Fall 3rd Year

- ECET 37600 - Electrical Energy Systems
- ECET 38001 - Global Professional Issues In Engineering Technology
- STAT 22500 - Introduction To Probability Models ♦ or
- STAT 30100 - Elementary Statistical Methods ♦
- ECET Advanced Analysis Selective - Credit Hours: 3.00
- General Education Selective - Credit Hours: 3.00

15 Credits

Spring 3rd Year

- ECET 27400 - Wireless Communications
- ECET 33300 - Power Electronics In Energy Systems
- MET 22000 - Heat And Power
- AGEC 33000 - Management Methods For Agricultural Business or
- AGEC 35200 - Quantitative Techniques For Firm Decision Making or
- IET 33400 - Economic Analysis For Technology Systems or
- MGMT 20000 - Introductory Accounting or
- MGMT 21200 - Business Accounting

- Business Selective - Credit Hours: 3.00

15 Credits

Fall 4th Year

- ECET 37300 - Applied Electronic Drives
- ECET 38600 - Building Electrical Codes And Standard Practices
- Senior Capstone Selective I - Credit Hours: 3.00
- General Education Selective - Credit Hours: 3.00
- Energy Related Technical Selective - Credit Hours: 3.00

15 Credits

Spring 4th Year

- ECET 43600 - Electrical Power Transmissions, Distribution, And Smart Control
- MET 53000 - Facilities Engineering Technology ♦ or
- CE 35500 - Engineering Environmental Sustainability ♦

- Senior Capstone Selective II - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

12 Credits

Notes

- 2.0 Graduation GPA is required for the Bachelor of Science degree.
- ECET majors allow Pass/No Pass grading for General Education Selectives and (Free) electives.
- Students must earn a "D-" or better in all courses. Pass/no pass grading allowed for General Education Selectives and Free Electives (up to 15 hrs).
- Courses at Purdue University may only be attempted a maximum of three (3) times, including W, WF, I, IF and all graded attempts.
- Senior Capstone Selective I/II and 12 hours of ECET lab-based courses at the 300-level or higher must be taken at Purdue University West Lafayette and/or Polytechnic Statewide.
- 32 credit hours of 300-level or higher courses must be completed at Purdue University.
- The Energy Engineering Technology (ENET) major is within the Electrical Engineering Technology program.
- Intercultural Requirement (ungraded) must be completed.
- Professional Requirement (ungraded) must be completed.

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

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

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Industrial Engineering Technology, BS

About the Program

The Industrial Engineering Technology major is part of the Industrial Engineering Technology program. The Industrial Engineering Technology program is accredited by the Engineering Technology Accreditation Commission of ABET, www.abet.org.

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

Industrial Engineering Technology Website

Industrial Engineering Technology Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Department/Program Major Courses (40 credits)

Required Department Courses (40 credits)

- ENGT 18000 - Engineering Technology Foundations
- ENGT 18100 - Engineering Technology Applications
- IET 21400 - Introduction To Supply Chain Management Technology
- IET 31300 - Technology Innovation And Integration: Bar Codes To Biometrics
- IET 31600 - Statistical Quality Control
- IET 33400 - Economic Analysis For Technology Systems
- IET 33520 - Human Factors For Technology Systems
- IET 33620 - Total Productive Maintenance
- IET 43530 - Operations Planning And Management
- IET 43540 - Facilities Planning And Material Handling
- IET 43630 - Design Of Experiments
- IET 43640 - Lean Six Sigma
- ENGT 48000 - Engineering Technology Capstone I
- ENGT 48100 - Engineering Technology Capstone II
- Professional Requirement - Credit Hours: 0.00
- Global/Intercultural Requirement - Credit Hours: 0.00

Other Departmental Courses (72 credits)

- ECON 21000 - Principles Of Economics ♦
- ECET 22400 - Electronic Systems
- MET 24500 - Manufacturing Systems
- PHYS 22000 - General Physics ♦ (satisfies Science for core)
- STAT 30100 - Elementary Statistical Methods ♦
- TECH 12000 - Design Thinking In Technology ♦ (satisfies both Information Literacy and Science, Technology and Society for core)
- TLI 11200 - Foundations Of Organizational Leadership ♦
- TLI 21300 - Project Management
- Behavioral/Social Science Selective (satisfies Behaviorial/Social Science for core) - Credit Hours: 3.00
- Humanities Selective (satisfies Humanities for core) - Credit Hours: 3.00
- Lab Science Selective (satisfies Science for core) - Credit Hours: 3.00
- Mathematics Selective (satisfies Quantitative Reasoning for core) - Credit Hours: 3.00
- Oral Communication Selective (satisfies Oral Communication for core) - Credit Hours: 3.00
- Written Communication Selective (satisfies Written Communication for core) - Credit Hours: 3.00
- Advanced Oral Communication Selective - Credit Hours: 3.00
- Advanced Written Communication Selective - Credit Hours: 3.00 ♦
- Computer Programming Selective - Credit Hours: 3.00 ♦

- Manufacturing Automation Selective - Credit Hours: 3.00
- Materials & Processes Selective - Credit Hours: 3.00 ♦
- Technical Graphic Selective - Credit Hours: 2.00 ♦
- Technical Electives - Credit Hours: 12.0

Electives (8 credits)

Any course, any subject - Credit Hours: 8.00

University Requirements

University Core Requirements

For a complete listing of University Core Course Selectives, visit the <u>Provost's Website</u>**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Civics Literacy Proficiency Requirement:

The Civics Literacy Proficiency activities are designed to develop civic knowledge of Purdue students in an effort to graduate a more informed citizenry.

Students will complete the Proficiency by passing a test of civic knowledge, and completing <u>one of three</u> paths:

- Attending six approved civics-related events and completing an assessment for each; or
- Completing 12 podcasts created by the Purdue Center for C-SPAN Scholarship and Engagement that use C-SPAN material and completing an assessment for each; or
- Earning a passing grade for one of **these approved courses** (or transferring in approved AP or departmental credit in lieu of taking a course)
  For more information visit the Civics Literacy Proficiency **website.**

Prerequisite Information:

For current pre-requisites for courses, click here.

Additional Requirements

Click here for Industrial Engineering Technology Supplemental Information.

Program Requirements

Fall 1st Year

- ENGT 18000 - Engineering Technology Foundations
- ENGT 18100 - Engineering Technology Applications
- TECH 12000 - Design Thinking In Technology ♦
- Oral Communication Selective - Credit Hours: 3.00
- Mathematics Selective - Credit Hours: 3.00
- Humanities Selective - Credit Hours: 3.00

16 Credits

Spring 1st Year

- TLI 11200 - Foundations Of Organizational Leadership ♦
- PHYS 22000 - General Physics ♦
- Behavioral/Social Science Selective - Credit Hours: 3.00
- Materials & Processes Selective - Credit Hours: 3.00
- Written Communication Selective - Credit Hours: 3.00

16 Credits

Fall 2nd Year

- TLI 21300 - Project Management
- IET 21400 - Introduction To Supply Chain Management Technology
- Computer Programming Selecitve - Credit Hours: 3.00 ♦
- Lab Science Selective - Credit Hours: 3.00
- Technical Graphics Selective - Credit Hours: 2.00 ♦

14 Credits

Spring 2nd Year

- IET 31600 - Statistical Quality Control
- MET 24500 - Manufacturing Systems
- ECET 22400 - Electronic Systems
- ECON 21000 - Principles Of Economics ♦
- Technical Elective - Credit Hours: 3.00

15 Credits

Fall 3rd Year

- IET 31300 - Technology Innovation And Integration: Bar Codes To Biometrics
- STAT 30100 - Elementary Statistical Methods ♦
- IET 33400 - Economic Analysis For Technology Systems
- IET 33620 - Total Productive Maintenance
- Advanced Written Communication Selective - Credit Hours: 3.00

15 Credits

Spring 3rd Year

- IET 33520 - Human Factors For Technology Systems
- IET 43630 - Design Of Experiments
- IET 43530 - Operations Planning And Management
- Manufacturing Automation Selective - Credit Hours: 3.00
- Advanced Oral Communication Selective - Credit Hours: 3.00 ♦

15 Credits

Fall 4th Year

- ENGT 48000 - Engineering Technology Capstone I
- IET 43640 - Lean Six Sigma
- Technical Elective - Credit Hours: 3.00
- Technical Elective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Spring 4th Year

- ENGT 48100 - Engineering Technology Capstone II
- IET 43540 - Facilities Planning And Material Handling
- Technical Elective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00
- Elective - Credit Hours: 2.00

14 Credits

Notes

- 2.0 Graduation GPA required for Bachelor of Science degree.
- TIET majors allow Pass/No Pass grading for (Free) electives only all other degree requirements must be taken for a grade.

- 32 credits of upper division courses (30000 level or higher) must be taken at Purdue University, West Lafayette.

- ANY COURSE TAKEN AT PURDUE CAN BE ATTEMPTED NO MORE THAN THREE TIMES (INCLUSIVE OF W, WF, I AND IF).

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

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

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Mechanical Engineering Technology, BS

About the Program

The Mechanical Engineering Technology major is part of the Mechanical Engineering Technology program. The Mechanical Engineering Technology program is accredited by the Engineering Technology Accreditation Commission of ABET, www.abet.org.

The careers of mechanical engineering technology graduates take them to a variety of employers (e.g. Rockwell Automation, Fender Guitars, Lockheed Martin, Caterpillar) yet they have many skills in common: problem-solving, leadership and teamwork. The program focuses on the methods, materials, machinery and manpower necessary to effectively operate in a manufacturing environment. You'll learn how to manage people, machines, and production resources to ensure maximum efficiency and safety.

Mechanical Engineering Technology Website

Mechanical Engineering Technology Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (120 credits)

Required Major Courses (59 credits)

- ENGT 18000 - Engineering Technology Foundations (SoET Gateway Course)
- ENGT 18100 - Engineering Technology Applications (SoET Gateway Lab)
- MET 10200 - Production Design And Specifications

- MET 11100 - Applied Statics
- MET 14300 - Materials And Processes I
- MET 14400 - Materials And Processes II
- MET 21100 - Applied Strength Of Materials
- MET 21300 - Dynamics
- MET 22000 - Heat And Power
- MET 23000 - Fluid Power
- MET 24500 - Manufacturing Systems
- MET 28400 - Introduction To Industrial Controls
- MET 31300 - Applied Fluid Mechanics
- MET 32000 - Applied Thermodynamics
- MET 34600 - Advanced Materials In Manufacturing
- Professional Requirement - Credit Hours: 0.00
- Intercultural Requirement - Credit Hours: 0.00

MET Selectives (15 credits included within major credits)

- Mechanics Selective - Credit Hours: 3.00
- MET Elective or approved Focus Area elective - Credit Hours: 3.00
- MET Capstone Selective I - Credit Hours: 3.00
- MET Capstone Selective II - Credit Hours: 3.00
- Technical Selective or approved Focus Area Selective - Credit Hours: 3.00

Other Departmental/Program Course Requirements (61 credits)

- CHM 11100 - General Chemistry
- ECET 22400 - Electronic Systems
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
- MA 16020 - Applied Calculus II
- 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)
- IET 33400 - Economic Analysis For Technology Systems
- Freshman Composition Selective (satisfies Written Communication for core) - Credit Hours: 3.00
- Computer Graphics Technology Selective - Credit Hours: 2.00 ♦
- Economics/Finance Selective - Credit Hours 3.00
- Programming Selective - Credit Hours 3.00
- Freshman Speech Selective (satisfies Oral Communication for Core) -Credit hours: 3.00
- Communications Selective - Credit hours: 3.00
- Technical Writing Selective - 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
- Global/Professional Selective - Credit Hours: 3.00

- Technical/Management Selective (TECH/MGMT Selective) - Credit Hours: 3.00

University Requirements

University Core Requirements

For a complete listing of University Core Course Selectives, visit the <u>Provost's Website</u>**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Civics Literacy Proficiency Requirement:

The Civics Literacy Proficiency activities are designed to develop civic knowledge of Purdue students in an effort to graduate a more informed citizenry.

Students will complete the Proficiency by passing a test of civic knowledge, and completing <u>one of three</u> paths:

- Attending six approved civics-related events and completing an assessment for each; or
- Completing 12 podcasts created by the Purdue Center for C-SPAN Scholarship and Engagement that use C-SPAN material and completing an assessment for each; or
- Earning a passing grade for one of **these approved courses** (or transferring in approved AP or departmental credit in lieu of taking a course)
  For more information visit the Civics Literacy Proficiency **website.**

Prerequisite Information:

For current pre-requisites for courses, click here.

Additional Requirements

Click here for Mechanical Engineering Technology Supplemental Information.

Program Requirements

Fall 1st Year

- COM 11400 - Fundamentals Of Speech Communication or
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World

- ENGT 18000 - Engineering Technology Foundations
- ENGT 18100 - Engineering Technology Applications
- MA 16010 - Applied Calculus I
- MET 14400 - Materials And Processes II
- CGT 11000 - Technical Graphics Communications ♦ or
- CGT 16300 - Graphical Communication And Spatial Analysis ♦ or
- CGT 10301 - Geometric Modeling Applications ♦

15 Credits

Spring 1st Year

- ENGL 10600 - First-Year Composition or
- ENGL 10800 - Accelerated First-Year Composition or
- HONR 19903 - Interdisciplinary Approaches In Writing or
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity
- MA 16020 - Applied Calculus II
- MET 11100 - Applied Statics
- MET 14300 - Materials And Processes I
- TECH 12000 - Design Thinking In Technology ♦

15 Credits

Fall 2nd Year

- ECET 22400 - Electronic Systems
- MET 21100 - Applied Strength Of Materials
- PHYS 22000 - General Physics ♦
- Programming Selective - Credit Hours: 3.00

14 Credits

Spring 2nd Year

- MET 10200 - Production Design And Specifications
- MET 21300 - Dynamics
- MET 28400 - Introduction To Industrial Controls
- PHYS 22100 - General Physics ♦
- Humanities Selective - Credit Hours: 3.00

16 Credits

Fall 3rd Year

- CHM 11100 - General Chemistry

- MET 23000 - Fluid Power
- MET 22000 - Heat And Power
- MET 24500 - Manufacturing Systems
- STAT 30100 - Elementary Statistical Methods ♦

15 Credits

Spring 3rd Year

- MET 32000 - Applied Thermodynamics
- MET 34600 - Advanced Materials In Manufacturing
- Economics/Finance Selective - Credit Hours: 3.00
- Global/Professional Selective - Credit Hours: 3.00
- Mechanics Selective - Credit Hours: 3.00

15 Credits

Fall 4th Year

- ENGL 42100 - Technical Writing ♦ or
- ENGL 42400 - Writing For High Technology Industries ♦ or
- ENGL 42000 - Business Writing ♦
- MET Capstone Selective I - Credit Hours: 3.00
- IET 33400 - Economic Analysis For Technology Systems
- MET 31300 - Applied Fluid Mechanics
- Technical/Management (TECH/MGMT) Selective - Credit Hours: 3.00

15 Credits

Spring 4th Year

- COM 32000 - Small Group Communication or
- COM 31500 - Speech Communication Of Technical Information or
- COM 41500 - Discussion Of Technical Problems or
- EDPS 31500 - Collaborative Leadership: Interpersonal Skills
- MET Capstone Selective II - 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

15 Credits

Notes

- 2.0 Graduation GPA are required for the Bachelor of Science degree.

- Students must earn a "D-" or better in all courses unless otherwise noted.
- MET does not allow P/NP grading for any classes that are used to meet degree requirements, all degree requirements must be taken for a grade.

- Courses at Purdue University may only be attempted a maximum of three (3) times, including W, WF, I, IF and all graded attempts.
- 32 credit hours of 300-level or higher courses must be completed at Purdue University.
- Complete a Professional Requirement.
- Complete an Intercultural Requirement.
- + denotes optional Cornerstone Certificate course.

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

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

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Mechatronics Engineering Technology, BS

About the Program

The Mechatronics Engineering Technology major is part of the Manufacturing Engineering Technology program. The Manufacturing Engineering Technology program is accredited by the Engineering Technology Accreditation Commission of ABET, www.abet.org.

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 mechatronics engineering technology, you will focus on the development of the electromechanical products that are ubiquitous in modern life, dealing with interconnections that allow electronic control of mechanical, pneumatic, and hydraulic systems.

Mechatronics Engineering Technology Website

Mechatronics Engineering Technology Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (120 credits)

Required Major Courses (62 credits)

- CNIT 10500 - Introduction To C Programming ♦
- ECET 17900 - Introduction To Digital Systems
- ECET 27900 - Embedded Digital Systems
- ECET 32700 - Instrumentation And Data Acquisition Design
- ECET 33700 - Continuous Systems Analysis And Design
- ENGT 18000 - Engineering Technology Foundations
- ENGT 18100 - Engineering Technology Applications
- MET 10200 - Production Design And Specifications
- MET 11100 - Applied Statics
- MET 11300 - Mechanics Applications
- 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 37400 - Manufacturing Integration I
- Manufacturing Selective - Credit Hours: 3.00
- Mechatronics Selective - Credit Hours: 3.00
- Controls Selective - Credit Hours: 3.00
- Materials and Processes Selective - Credit Hours: 3.00
- Capstone Selective I - Credit Hours: 3.00
- Capstone Selective II - Credit Hours: 3.00
- Professional Requirement - Credit Hours: 0.00
- Intercultural Requirement - Credit Hours: 0.00

Other Departmental/Program Course Requirements (54 credits)

- CHM 11100 - General Chemistry ♦ (satisfies Science for core)
- ECET 22400 - Electronic Systems
- ECET 38001 - Global Professional Issues In Engineering Technology
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
- MA 16020 - Applied Calculus II
- TECH 12000 - Design Thinking In Technology ♦ (satisfies Science Technology and Society and Information Literacy for core)
- IET 33400 - Economic Analysis For Technology Systems
- Science Selective - Credit Hours: 3.00
- Freshman Composition Selective (satisfies Written Communication for core) - Credit Hours: 3.00
- Human Cultures: Humanities Foundational Selective (satisfies Human Cultures Humanities for core) - Credit Hours: 3.00
- Human Cultures: Behavior/Social Science Foundational Selective (satisfies Human Cultures: Behavioral Sciences for core) - Credit Hours: 3.00
- Humanities/Social Science Elective - Credit Hours: 3.00
- Physics Selective (satisfies Science for core) - Credit Hours: 4.00 ♦

- Computer Graphics Selective - Credit Hours: 2.00 ♦
- Statistics/Quality Selective - Credit Hours: 3.00 ♦
- Freshman Speech Selective + - Credit Hours: 3.00 (satisfies Oral Communication for Core)
- Communications Selective + - Credit Hours: 3.00
- Technical Writing Selective + - Credit Hours: 3.00 ♦

Electives (4 credits)

Any non-remedial course

University Requirements

University Core Requirements

For a complete listing of University Core Course Selectives, visit the <u>Provost's Website</u>.

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Civics Literacy Proficiency Requirement:

The Civics Literacy Proficiency activities are designed to develop civic knowledge of Purdue students in an effort to graduate a more informed citizenry.

Students will complete the Proficiency by passing a test of civic knowledge, and completing <u>one of three</u> paths:

- Attending six approved civics-related events and completing an assessment for each; or
- Completing 12 podcasts created by the Purdue Center for C-SPAN Scholarship and Engagement that use C-SPAN material and completing an assessment for each; or
- Earning a passing grade for one of **these approved courses** (or transferring in approved AP or departmental credit in lieu of taking a course)
  For more information visit the Civics Literacy Proficiency **website.**

Prerequisite Information:

For current pre-requisites for courses, click here.

Additional Requirements

Click here for Mechatronics Engineering Technology Supplemental Information.

Program Requirements

Fall 1st Year

- CNIT 10500 - Introduction To C Programming ♦
- ENGT 18000 - Engineering Technology Foundations
- ENGT 18100 - Engineering Technology Applications
- MA 16010 - Applied Calculus I
- Materials and Processes Selective - Credit Hours: 3.00 ♦
- Freshman Composition Selective - Credit Hours: 3.00

16 Credits

Spring 1st Year

- ECET 22400 - Electronic Systems
- MA 16020 - Applied Calculus II
- MET 11100 - Applied Statics
- TECH 12000 - Design Thinking In Technology ♦
- Humanities Foundational Selective - Credit Hours: 3.00

15 Credits

Fall 2nd Year

- CHM 11100 - General Chemistry
- ECET 17900 - Introduction To Digital Systems
- MET 11300 - Mechanics Applications
- MET 28400 - Introduction To Industrial Controls
- Computer Graphics Selective - Credit Hours: 2.00 ♦
- Freshman Speech Selective + - Credit hours: 3.00

15 Credits

Spring 2nd Year

- ECET 27900 - Embedded Digital Systems
- MET 10200 - Production Design And Specifications
- MET 24500 - Manufacturing Systems
- Physics Selective - Credit Hours: 4.00 ♦
- Behavioral/Social Science Foundational Selective - Credit Hours: 3.00

16 Credits

Fall 3rd Year

- MET 23000 - Fluid Power
- MFET 34400 - Automated Manufacturing Processes
- ECET 32700 - Instrumentation And Data Acquisition Design
- Science Selective - Credit Hours: 3.00
- Technical Writing Selective + - Credit Hours: 3.00 ♦

15 Credits

Spring 3rd Year

- MFET 37400 - Manufacturing Integration I
- ECET 38001 - Global Professional Issues In Engineering Technology
- ECET 33700 - Continuous Systems Analysis And Design
- Statistics or Quality Selective - Credit Hours: 3.00 ♦
- Manufacturing Selective - Credit Hours: 3.00

15 Credits

Fall 4th Year

- IET 33400 - Economic Analysis For Technology Systems
- Communications Selective + - Credit Hours: 3.00
- Capstone Selective I - Credit Hours: 3.00
- Controls Selective - Credit Hours: 3.00 ♦
- Mechatronics Selective - Credit Hours: 3.00 ♦

15 Credits

Spring 4th Year

- MET 38200 - Controls And Instrumentation For Automation
- Capstone Selective II - Credit Hours: 3.00
- Humanities/Social Science Elective - Credit Hours: 3.00
- Elective - Credit Hours: 4.00

13 Credits

Notes

- A 2.0 Graduation GPA are required for the Bachelor of Science degree.
- MFET majors do not allow P/NP grading for any classes that are used to meet degree requirements, all degree requirements must be taken for a grade.
- Students must earn a "D-" or better in all courses.
- Courses at Purdue University may only be attempted a maximum of three (3) times, including W, WF, I, IF and all graded attempts.

- 32 credit hours of 300-level or higher courses must be completed at Purdue University.
- Complete a Professional Requirement.
- Complete an Intercultural Requirement.
- "D-" or better required in all major courses.
- + denotes options Cornerstone Certificate course.

Degree Requirements

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

Degree Works is knowledge source for specific requirements and completion.

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

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

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Robotics Engineering Technology, BS

About the Program

The Robotics Engineering Technology major is part of the Manufacturing Engineering Technology program. The Manufacuring Engineering Technology program is accredited by the Engineering Technology Accreditation Commission of ABET, www.abet.org.

This is one of three majors offered in the Purdue Polytechnic Institute for students who seek to contribute at the intersection between manufacturing, electrical, mechanical, and computing areas in primarily industrial environments. When you major in robotics engineering technology, you will develop and apply robotic solutions to a broad range of industrial and consumer problems. Robots help people and companies be more productive and safer, and they help explore more frontiers.

Robotics Engineering Technology Website

Robotics Engineering Technology Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (74 credits)

Required Major Courses (74 credits)

- ENGT 18000 - Engineering Technology Foundations
- ENGT 18100 - Engineering Technology Applications
- MET 11100 - Applied Statics
- CNIT 10500 - Introduction To C Programming ♦
- MET 28400 - Introduction To Industrial Controls
- MFET 24800 - Introduction To Robotics
- Technical Graphics Selective - Credit Hours: 3.00 ♦
- MET 21300 - Dynamics
- CS 17700 - Programming With Multimedia Objects ♦
- MET 31500 - Applied Mechanism Kinematics And Dynamics
- ECET 36900 - Applied Computer Vision For Sensing And Automation
- MFET 36100 - Machine Learning And Manufacturing Analytics
- MFET 44200 - Programming Robots With ROS
- MFET 44000 - Smart Manufacturing Autonomous Human Robot Systems
- MFET 34800 - Advanced Industrial Robotics
- Capstone Selective I - Credit hours: 3.00
- Capstone Selective II - Credit Hours: 3.00
- Technical Selectives - Credit Hours: 18.00
- Professional Requirement - Credit Hours: 0.00
- Global/Intercultural Requirement - Credit Hours: 0.00
- ECET 33700 - Continuous Systems Analysis And Design
- Instrument and DAQ Design Selective - Credit Hours: 3.00

Other Departmental/Program Course Requirements (40 credits)

- CHM 11100 - General Chemistry ♦ (satisfies Science for Core)
- ECET 22400 - Electronic Systems
- TECH 12000 - Design Thinking In Technology (satisfies Information Literacy and Science, Technology & Society for core) ♦
- Physics Selective (satisfies Science for core) - Credit Hours: 4.00 ♦
- Math Selective I (satisfies Quantitative Reasoning for core) - Credit Hours: 3.00
- Math Selective II - Credit Hours: 3.00
- STAT 30100 - Elementary Statistical Methods ♦
- Oral Communication Selective + (satisfies Oral Communication for core) - Credit Hours: 3.00 ♦
- Advanced Oral Communication Selective + - Credit Hours: 3.00 ♦
- Technical Writing Selective + - Credit Hours: 3.00 ♦
- Freshman Composition Selective (satisfies Written Communication for core) - Credit Hours: 3.00 ♦
- Human Cultures: Humanities Foundational Selective (satisfies Human Cultures Humanities for core) - Credit Hours: 3.00

- Human Cultures: Behavior/Social Science Foundational Selective (satisfies Human Cultures: Behavioral Sciences for core) - Credit Hours: 3.00

Electives (6 credits)

Any non-remedial course

University Requirements

University Core Requirements

For a complete listing of University Core Course Selectives, visit the <u>Provost's Website</u>.

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Civics Literacy Proficiency Requirement:

The Civics Literacy Proficiency activities are designed to develop civic knowledge of Purdue students in an effort to graduate a more informed citizenry.

Students will complete the Proficiency by passing a test of civic knowledge, and completing <u>one of three</u> paths:

- Attending six approved civics-related events and completing an assessment for each; or
- Completing 12 podcasts created by the Purdue Center for C-SPAN Scholarship and Engagement that use C-SPAN material and completing an assessment for each; or
- Earning a passing grade for one of **these approved courses** (or transferring in approved AP or departmental credit in lieu of taking a course)
  For more information visit the Civics Literacy Proficiency **website.**

Prerequisite Information:

For current pre-requisites for courses, click here.

Additional Requirements

Click here for Robotics Engineering Technology Supplemental Information.

Program Requirements

Fall 1st Year

- Technical Graphics Selective ♦
- TECH 12000 - Design Thinking In Technology ♦
- Oral Communication Selective - Credit Hours: 3.00 ♦
- ENGT 18000 - Engineering Technology Foundations
- Math Selective I
- ENGT 18100 - Engineering Technology Applications

16 Credits

Spring 1st Year

- CS 17700 - Programming With Multimedia Objects ♦
- MET 11100 - Applied Statics
- Math Selective II
- CHM 11100 - General Chemistry
- Humanities Selective

16 Credits

Fall 2nd Year

- CNIT 10500 - Introduction To C Programming ♦
- Freshman Composition Selective ♦
- ECET 22400 - Electronic Systems
- MET 21300 - Dynamics
- Behavioral/Social Science Foundation Selective

15 Credits

Spring 2nd Year

- MFET 24800 - Introduction To Robotics
- Physics Selective - Credit Hours: 4.00 ♦
- Technical Selective - Credit Hours: 3.00
- MET 28400 - Introduction To Industrial Controls
- STAT 30100 - Elementary Statistical Methods ♦

16 Credits

Fall 3rd Year

- MET 31500 - Applied Mechanism Kinematics And Dynamics
- Instrument & DAQ Design Selective - Credit Hours: 3.00

- Advanced Oral Communication Selective ♦
- Technical Selective
- MFET 36100 - Machine Learning And Manufacturing Analytics

15 Credits

Spring 3rd Year

- ECET 33700 - Continuous Systems Analysis And Design
- ECET 36900 - Applied Computer Vision For Sensing And Automation
- MFET 44200 - Programming Robots With ROS
- Technical Selective
- Elective

15 Credits

Fall 4th Year

- MFET 34800 - Advanced Industrial Robotics
- MFET 44000 - Smart Manufacturing Autonomous Human Robot Systems
- Technical Writing Selective + - Credit Hours: 3.00 ♦
- Technical Selective - Credit Hours: 3.00
- Capstone Selective I - Credit Hours: 3.00

15 Credits

Spring 4th Year

- Capstone Selective II - Credit Hours: 3.00
- Technical Selective - Credit Hours: 3.00
- Technical Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

12 Credits

Notes

- 2.0 Graduation GPA are required for the Bachelor of Science degree.
- MFET majors do not allow P/NP grading for any classes that are used to meet degree requirements, all degree requirements must be taken for a grade.
- Students must earn a "D-" or better in all courses.
- Courses at Purdue University may only be attempted a maximum of three (3) times, including W, WF, I, IF and all graded attempts.
- 32 credit hours of 300-level or higher courses must be completed at Purdue University.
- Technical Selectives must come from the same subject area.

- Complete a Professional Requirement.
- Complete an Global/Intercultural Requirement.
- + denotes Cornerstone Certificate option.

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

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

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Smart Manufacturing Industrial Informatics, BS

The Smart Manufacturing Industrial Informatics (SMII) major features the holistic integration of the digital transformation technologies and capabilities of Industry 4.0. It introduces students to topics in Industrial Internet of Things (IIoT), cyber-physical systems, manufacturing intelligence/analytics, cloud/edge computing, augmented reality, simulation, autonomous and human robot interactions, additive manufacturing, and industrial cybersecurity, all presented in the context of smart manufacturing applications. Central to this new curriculum is the integration of physical operational technologies with the information technologies to implement data driven production systems and processes using artificial intelligence (AI) and Machine Learning (ML) techniques. Courses in the program will be aligned with the digitalization strategies of Industry 4.0, particularly with the systemic utilization of IIoT, data, AI/ML, and Cloud/Edge computing for optimizing production processes, improve productivity, quality, and efficiency of cyber-physical manufacturing operations in a smart connected enterprise.

Smart Manufacturing Industrial Informatics Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (120 credits)

Required Major Courses (64 credits)

- ENGT 18000 - Engineering Technology Foundations
- ENGT 18100 - Engineering Technology Applications
- MET 14300 - Materials And Processes I
- MET 24500 - Manufacturing Systems
- MET 28400 - Introduction To Industrial Controls

- MFET 23000 - Industrial Internet Of Things, Networks, And Systems I
- MFET 23100 - Industrial Internet Of Things, Networks, And Systems II
- MFET 24800 - Introduction To Robotics
- MFET 25000 - Smart Manufacturing Cloud Computing Applications
- MFET 34100 - Process And Continuous Control Applications
- MFET 34400 - Automated Manufacturing Processes
- MFET 35000 - Smart Manufacturing Systems Modeling & Simulation
- MFET 35100 - Mixed Reality Smart Manufacturing Applications & Design
- MFET 35200 - Smart Manufacturing Production Information Systems
- MFET 36100 - Machine Learning And Manufacturing Analytics
- MFET 36300 - Intelligent Manufacturing Systems I
- MFET 36400 - Intelligent Manufacturing Systems II
- MFET 41000 - Introduction To Additive Manufacturing
- MFET 44000 - Smart Manufacturing Autonomous Human Robot Systems
- ENGT 48000 - Engineering Technology Capstone I
- ENGT 48100 - Engineering Technology Capstone II
- Materials and Processes Selective - Credit Hours: 3.00
- Intercultural Requirement - Credit Hours: 0.00
- Professional Requirement - Credit Hours: 0.00

Other Departmental/Program Course Requirements (52 credits)

- CGT 10301 - Geometric Modeling Applications ♦
  Lab Science Selective - Credit Hours: 3.00 ♦ (satisfies Science for core)
- CNIT 15501 - Introduction To Software Development Concepts ♦
- ECET 22400 - Electronic Systems
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
- MA 16020 - Applied Calculus II
- TECH 12000 - Design Thinking In Technology ♦ (satisfies Information Literacy and Science, Technology & Society for core)
- IET 21400 - Introduction To Supply Chain Management Technology
- PHYS 22000 - General Physics ♦ (satisfies Science for core)
- STAT 30100 - Elementary Statistical Methods ♦
- Freshman Composition Selective + (satisfies Written Communication for core) - Credit Hours: 3.00 ♦
- Human Cultures: Humanities Foundation Selective (satisfies Human Cultures Humanities for core) - Credit Hours: 3.00
- Human Cultures: Behavior/Social Sciences Foundation Selective (satisfies Human Cultures: Behavioral Sciences for core) - Credit Hours: 3.00
- Oral Communications Selective + (satisfies Oral Communication for core) - Credit Hours: 3.00 ♦
- Technical Writing Selective + - Credit Hours: 3.00 ♦
- IET/TECH/MGMT Selective - Credit Hours: 3.00
- Communications Selective - Credit Hours: 3.00 ♦

Electives (4 credits)

University Requirements

University Core Requirements

For a complete listing of University Core Course Selectives, visit the <u>Provost's Website</u>**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Civics Literacy Proficiency Requirement:

The Civics Literacy Proficiency activities are designed to develop civic knowledge of Purdue students in an effort to graduate a more informed citizenry.

Students will complete the Proficiency by passing a test of civic knowledge, and completing <u>one of three</u> paths:

- Attending six approved civics-related events and completing an assessment for each; or
- Completing 12 podcasts created by the Purdue Center for C-SPAN Scholarship and Engagement that use C-SPAN material and completing an assessment for each; or
- Earning a passing grade for one of **these approved courses** (or transferring in approved AP or departmental credit in lieu of taking a course)
  For more information visit the Civics Literacy Proficiency **website.**

Prerequisite Information:

For current pre-requisites for courses, click here.

Additional Requirements

Click here for Smart Manufacturing Industrial Informatics Supplemental Information

Program Requirements

Fall 1st Year

- MA 16010 - Applied Calculus I
- ENGT 18000 - Engineering Technology Foundations
- ENGT 18100 - Engineering Technology Applications
- MET 14300 - Materials And Processes I
- Freshman Composition Selective + - Credit Hours: 3.00 (satisfies Written Communication for core) ♦
- Lab Science Selective - Credit Hours: 3.00 (satisfies Science for the Core)

16 Credits

Spring 1st Year

- CNIT 15501 - Introduction To Software Development Concepts ♦
- CGT 10301 - Geometric Modeling Applications ♦
- MA 16020 - Applied Calculus II
- TECH 12000 - Design Thinking In Technology
- Oral Communicaiton Selective + ♦ (satisfies Oral Communication for core) - Credit Hours: 3.00

15 Credits

Fall 2nd Year

- MFET 23000 - Industrial Internet Of Things, Networks, And Systems I
- MFET 25000 - Smart Manufacturing Cloud Computing Applications
- ECET 22400 - Electronic Systems ♦
- Technical Writing Selective + - Credit Hours: 3.00 ♦
- PHYS 22000 - General Physics

16 Credits

Spring 2nd Year

- MFET 23100 - Industrial Internet Of Things, Networks, And Systems II
- MFET 24800 - Introduction To Robotics
- MET 24500 - Manufacturing Systems
- MET 28400 - Introduction To Industrial Controls
- STAT 30100 - Elementary Statistical Methods ♦

15 Credits

Fall 3rd Year

- MFET 35000 - Smart Manufacturing Systems Modeling & Simulation
- MFET 35100 - Mixed Reality Smart Manufacturing Applications & Design
- MFET 36100 - Machine Learning And Manufacturing Analytics
- Materials and Processes Selective - Credit Hours: 3.00
- IET 21400 - Introduction To Supply Chain Management Technology

15 Credits

Spring 3rd Year

- MFET 34100 - Process And Continuous Control Applications

- MFET 34400 - Automated Manufacturing Processes
- MFET 35200 - Smart Manufacturing Production Information Systems
  * Humanities Foundation Selective - 3.00 credits
- MFET 36300 - Intelligent Manufacturing Systems I

15 Credits

Fall 4th Year

- ENGT 48000 - Engineering Technology Capstone I
- MFET 36400 - Intelligent Manufacturing Systems II
- MFET 44000 - Smart Manufacturing Autonomous Human Robot Systems
- IET/TECH/MGMT Selective - Credit Hours: 3.00
- Elective - Credit Hours: 4.00

16 Credits

Spring 4th Year

- ENGT 48100 - Engineering Technology Capstone II
- MFET 41000 - Introduction To Additive Manufacturing
- Behavioral/Social Science Foundation Selective - Credit Hours: 3.00
- Communications Selective - Credit Hours: 3.00 ♦

12 Credits

Notes

- Students must earn a "D-" or better in all courses.
- Courses at Purdue University may only be attempted a maximum of three (3) times, including W, WF, I, IF, and all graded attempts.
- 32 credit hours of 300-level or higher courses must be completed at Purdue University.
- + denotes options Cornerstone Certificate course.
- Complete a Professional Requirement.
- Complete an Intercultural Requirement.

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

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Supply Chain & Sales Engineering Technology, BS

About the Program

The Supply Chain & Sales Engineering Technology major is part of the Industrial Engineering Technology program. The Industrial Engineering Technology program is accredited by the Engineering Technology Accreditation Commission of ABET, www.abet.org.

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. The top ERP (Enterprise Resource Planning) software in the industry, SAP ERP, is embedded throughout the curriculum. The latest technology and software is also used to help graduates become career-ready.

Supply Chain & Sales Engineering Technology Website

Supply Chain & Sales Engineering Technology Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Department/Program Major Courses (46 credits)

Required Department Courses (46 credits)

- ENGT 18000 - Engineering Technology Foundations
- ENGT 18100 - Engineering Technology Applications
- IET 21400 - Introduction To Supply Chain Management Technology
- IET 31300 - Technology Innovation And Integration: Bar Codes To Biometrics
- IET 31600 - Statistical Quality Control
- IET 34200 - Warehouse And Inventory Management
- IET 34300 - Technical And Service Selling
- IET 34350 - Business To Business Sales Management
- IET 41400 - Financial Analysis For Technology Systems
- IET 43530 - Operations Planning And Management
- IET 43630 - Design Of Experiments
- IET 43640 - Lean Six Sigma
- IET 44275 - Global Transportation And Logistics Management
- IET 44500 - Strategic Supply Chain Management
- ENGT 48000 - Engineering Technology Capstone I

- ENGT 48100 - Engineering Technology Capstone II
- Globalization/Intercultural Requirement - Credit Hours: 0.00
- Professional Requirement - Credit Hours: 0.00

Other Departmental Courses (69 Credits)

- ECET 22400 - Electronic Systems
- ECON 21000 - Principles Of Economics ♦
- MET 24500 - Manufacturing Systems
- MGMT 21200 - Business Accounting ♦
- PHYS 22000 - General Physics ♦
- STAT 30100 - Elementary Statistical Methods ♦
- TECH 12000 - Design Thinking In Technology ♦ *(satisfies both Information Literacy* <u>and</u> *Science, Technology and Society for core)*
- TLI 11200 - Foundations Of Organizational Leadership ♦
- TLI 21300 - Project Management
- Behavioral/Social Science Selective *(satisfies Behavioral/Social Science for core)* - Credit Hours: 3.00
- Humanities Selective *(satisfies Humanities for core)* - Credit Hours: 3.00
- Lab Science Selective *(satisfies Science for core)* - Credit Hours: 3.00
- Mathematics Selective *(satisfies Quantitative Reasoning for core)* - Credit Hours: 3.00
- Oral Communication Selective *(satisfies Oral Communication for core)* - Credit Hours: 3.00
- Written Communication Selective *(satisfies Written Communication for core)* - Credit Hours: 3.00
- Advanced Oral Communication Selective - Credit Hours: 3.00
- Advanced Written Communication Selective - Credit Hours: 3.00 ♦
- Computer Programming Selective - Credit Hours: 3.00 ♦
- Manufacturing Automation Selective - Credit Hours: 3.00
- Materials & Processes Selective - Credit Hours: 3.00 ♦
- Technical Graphics Selective - Credit Hours: 2.00 ♦
- Technical Elective - Credit Hours: 6.00

Electives (5 credits)

Any non-remedial course.

University Requirements

University Core Requirements

For a complete listing of University Core Course Selectives, visit the <u>Provost's Website</u>.

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)

- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Civics Literacy Proficiency Requirement:

The Civics Literacy Proficiency activities are designed to develop civic knowledge of Purdue students in an effort to graduate a more informed citizenry.

Students will complete the Proficiency by passing a test of civic knowledge, and completing one of three paths:

- Attending six approved civics-related events and completing an assessment for each; or
- Completing 12 podcasts created by the Purdue Center for C-SPAN Scholarship and Engagement that use C-SPAN material and completing an assessment for each; or
- Earning a passing grade for one of **these approved courses** (or transferring in approved AP or departmental credit in lieu of taking a course)
  For more information visit the Civics Literacy Proficiency **website.**

Prerequisite Information:

For current pre-requisites for courses, click here.

Additional Requirements

Click here for Supply Chain & Sales Engineering Technology Supplemental Information.

Program Requirements

Fall 1st Year

- ENGT 18000 - Engineering Technology Foundations
- ENGT 18100 - Engineering Technology Applications
- TECH 12000 - Design Thinking In Technology ♦
- Mathematics Selective - Credit Hours: 3.00
- Oral Communication Selective - Credit Hours: 3.00
- Humanities Selective - Credit Hours: 3.00

16 Credits

Spring 1st Year

- TLI 11200 - Foundations Of Organizational Leadership ♦
- PHYS 22000 - General Physics ♦
- Behavioral/Social Science Selective - Credit Hours: 3.00
- Materials & Processes Selective - Credit Hours: 3.00 ♦
- Written Communication Selective - Credit Hours: 3.00

16 Credits

Fall 2nd Year

- TLI 21300 - Project Management
- IET 21400 - Introduction To Supply Chain Management Technology
- Computer Programming Selective - Credit Hours: 3.00 ♦
- Lab Science Selective* - Credit Hours: 3.00
- Technical Graphics Selective - Credit Hours: 2.00 ♦

14 Credits

Spring 2nd Year

- ECET 22400 - Electronic Systems
- MET 24500 - Manufacturing Systems
- MGMT 21200 - Business Accounting ♦
- IET 34200 - Warehouse And Inventory Management
- IET 31600 - Statistical Quality Control

15 Credits

Fall 3rd Year

- ECON 21000 - Principles Of Economics ♦
- IET 31300 - Technology Innovation And Integration: Bar Codes To Biometrics
- IET 34300 - Technical And Service Selling
- STAT 30100 - Elementary Statistical Methods ♦
- Manufacturing Automation Selective - Credit Hours 3.00

15 Credits

Spring 3rd Year

- IET 34350 - Business To Business Sales Management
- IET 43530 - Operations Planning And Management
- IET 43630 - Design Of Experiments
- Technical Elective - Credit Hours 6.00

15 Credits

Fall 4th Year

- ENGT 48000 - Engineering Technology Capstone I
- IET 41400 - Financial Analysis For Technology Systems

- IET 43640 - Lean Six Sigma
- IET 44275 - Global Transportation And Logistics Management
- Advanced Written Communication Selective - Credit Hours 3.00 ♦

15 Credits

Spring 4th Year

- ENGT 48100 - Engineering Technology Capstone II
- IET 44500 - Strategic Supply Chain Management
- Advanced Oral Communication Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00
- Elective - Credit Hours: 2.00

14 Credits

Notes

- 2.0 Graduation GPA required for Bachelor of Science degree.
- Pass/No Pass grading for (Free) electives only all other degree requirements must be taken for a grade.
- 32 credits of upper division courses (30000 level or higher) must be taken at Purdue University, West Lafayette.
- ANY COURSE TAKEN AT PURDUE CAN BE ATTEMPTED NO MORE THAN THREE TIMES (INCLUSIVE OF W, WF, I AND IF).

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

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Minor

Electrical Engineering Technology Minor

The EET minor can be attached to any Purdue University major that will accommodate or allow it. It is not available for students with any majors in the Electrical Engineering Technology program, including Electrical Engineering Technology, Energy Engineering Technology, Computer Engineering Technology and Audio Engineering Technology.

Requirements for the Minor (15 credits)

Required Courses (15 credits)

- ECET 17700 - Data Acquisition And Systems Control or
- ECET 22400 - Electronic Systems
  or
- ECE 20001 - Electrical Engineering Fundamentals I
  and
- ECE 20007 - Electrical Engineering Fundamentals I Lab
  or
- ECE 20100 - Linear Circuit Analysis I and
- ECE 20700 - Electronic Measurement Techniques
- ECET 17900 - Introduction To Digital Systems
- ECET 22700 - DC And Pulse Electronics
- ECET 27700 - AC And Power Electronics or
- ECET 27900 - Embedded Digital Systems
- Additional Lab-based ECET 20000-level or higher - Credit Hours: 3.00 (Approved substitution for additional ECET course: MET 28400. ECET 22400 cannot be applied to this requirement. Lab assistant courses cannot be applied to this requirement.)

Prerequisite Information

A C programming course is a pre-requisite to ECET 17900. C programming courses at Purdue include:

- CNIT 10500 - Introduction To C Programming
- CS 15900 - C Programming
- CS 24000 - Programming In C

Notes

- EET minors must earn an overall GPA of 2.0 or better in courses on the minor.
- No course may be taken pass/fail.
- Transfer credit, course substitutions and credit by exam limited to three (3) credit hours.
- At least 12 credit hours of lab-based ECET courses must be taken at Purdue University.
- Course requisites must be met.

Availabiltiy

The EET minor can be attached to any Purdue University major that will accommodate or allow it. It is not available for students earning degrees in any of the majors within the Electrical Engineering Technology Program, including Audio Engineering

Technology (AUET), Computer Engineering Technology (CEGT), Electrical Engineering Technology (EETC) and Energy Engineering Technology (ENET).

Disclaimer

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Supply Chain Engineering Technology Minor

Supply Chain Engineering 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.

Requirements for the Minor (15 credits)

Required Courses (15 credits)

- IET 21400 - Introduction To Supply Chain Management Technology
- IET 31300 - Technology Innovation And Integration: Bar Codes To Biometrics
- IET 31600 - Statistical Quality Control
- IET 34200 - Warehouse And Inventory Management
- IET 34300 - Technical And Service Selling

Note

- All courses must have a grade of a "C-" or higher and have an overall minor GPA of 2.0.

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Division of Military Science and Technology

The Division of Military Science and Technology in the Purdue Polytechnic Institute was approved by the Purdue University Board of Trustees July 18, 2014.

The division is the academic and administrative home to the three ROTC programs on campus.

ROTC program web sites:

- Army ROTC
- Air Force ROTC
- Naval ROTC

Minor

Aerospace Studies Minor

Requirements for the Minor (14 credits)

Required Courses (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

Notes

- AFT 30000 level courses may be taken in the same semester as AFT 40000 level courses, but requires a waiver from HQ AFROTC.
- All courses must have a grade of a "C" or higher.

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Military Science and Leadership Minor

Requirements for the Minor (15 credits)

Required Courses (12 credits)

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

Military History/Policy Selective (3 credits)

- HIST 30000 - Eve Of Destruction: Global Crises And World Organization In The 20th Century
- HIST 35100 - The Second World War
- HIST 35500 - History Of American Military Affairs (preferred class for minor)
- HIST 43900 - Communist China
- MSL 35000 - American Military History And Leadership
- PHIL 23100 - Religions Of The West
- POL 23100 - Introduction To United States Foreign Policy
- POL 23700 - Modern Weapons And International Relations
- POL 43900 - United States Foreign Policy Making

Notes

- All courses must have a grade of a "C" or higher.
- MSL 49000 Directed Studies in Military Science may substitute for any required MSL course with department head approval.
- An alternative course may be used for the Military History/Policy Selective with department head approval.

Disclaimer

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The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Naval Science Minor

Requirements for the Minor (15 credits)

Required Courses (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

Naval Science Selectives (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

Note

- All courses must have a grade of a "C" or higher.

Disclaimer

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

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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

Department of Technology Leadership and Innovation Website

Contact Information

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

Graduate Information

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

Baccalaureate

Human Resource Development, BS

About the Program

A new major in Human Resource Development (HRD) offers you unparalleled resources, learning experiences and development opportunities.

When you graduate from this innovative program, you will be prepared to train and develop employees, improve employee engagement and performance, diagnose organizational needs, and assess system effectiveness. In essence, you will help organizations develop all job-related aspects for their employees.

Your personal and professional skill set will grow to include essential behavioral skills such as business acumen, communication, consultation, organization evaluation, ethical practice, global and cultural effectiveness, leadership and navigation, and employee management.

You will be able to recognize how employee behavior, knowledge, and skills enhance organizational effectiveness. When management identifies new opportunities, they will look to your expertise and guidance in developing organizational talent and addressing workplace challenges.

For more information on Human Resource Development click here.

Human Resource Development Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Requirements (60 credits)

Required Major Courses (45 credits)

- TLI 11200 - Foundations Of Organizational Leadership
- TLI 21300 - Project Management
- TLI 31400 - Leading Innovation In Organizations
- TLI 25500 - Foundations Of Human Resource Development
- TLI 31500 - New Product Development
- TLI 35510 - Training And Talent Development
- TLI 35520 - Organization Development And Change
- TLI 35530 - Strategic Planning In Human Resources
- TLI 35560 - Employment And Labor Law For The Human Resource Professionals
- TLI 35570 - Job Analysis And Job Design
- TLI 35580 - The Individual And Organizational Performance
- TLI 45560 - Professional Internship In Human Resources
- TLI 45570 - Global Human Resources
- TLI 45580 - Human Resource Information Systems And People Analytics
- TLI 45590 - Human Resources Capstone
- Globalization Experience - Credit Hours: 0.00

Human Resource Management Minor required (15 credits)

The following courses are integrated into the Plan of Study and will fulfill the Human Resource Management Minor.

- OBHR 33000 - Introduction To Organizational Behavior
- MGMT 44430 - Staffing: Talent Acquisition ♦
- MGMT 44431 - Compensation: Total Rewards ♦

- MGMT 44690 - Negotiation And Decision Making ♦
- MGMT 44301 - Management Of Human Resources ♦ or
- MGMT 44428 - Human Resources Management ♦

Other Departmental/Program Course Requirements (51 credits)

- COM 22400 - Communicating In The Global Workplace ♦
- EDPS 10101 - Learning In Context-An Introduction To The Learning Sciences ♦
- ENGL 42000 - Business Writing ♦
- MA 16010 - Applied Calculus I
- MGMT 30400 - Introduction To Financial Management
- PHIL 11100 - Introduction To Ethics (satisfies Human Cultures: Humanities for core)
- PSY 12000 - Elementary Psychology *(satisfies Behavioral/Social Science for core)*
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity ♦ (satisfies Written Communication for core)
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World ♦ *(satisfies Oral Communication for core)*
- SOC 10000 - Introductory Sociology
- SOC 31600 - Industry And Society
- STAT 30100 - Elementary Statistical Methods ♦
- TECH 12000 - Design Thinking In Technology ♦ *(satisfies both Information Literacy <u>and</u> Science, Technology and Society for core)*
- ECON 21000 - Principles Of Economics or
- AGEC 21700 - Economics or
- ECON 25100 - Microeconomics or
- ECON 25200 - Macroeconomics
- MA 15555 - Quantitative Reasoning or
- MA 15800 - Precalculus- Functions And Trigonometry *(satisfies Quantitative Reasoning for core)*
- Science Selective - Credit Hours: 3.00
- Science Selective - Credit Hours: 3.00

Electives (9 credits)

University Requirements

University Core Requirements

For a complete listing of University Core Course Selectives, visit the <u>Provost's Website</u>**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)

- Science, Technology, and Society (STS)
- Written Communication (WC)

Civics Literacy Proficiency Requirement:

The Civics Literacy Proficiency activities are designed to develop civic knowledge of Purdue students in an effort to graduate a more informed citizenry.

Students will complete the Proficiency by passing a test of civic knowledge, and completing one of three paths:

- Attending six approved civics-related events and completing an assessment for each; or
- Completing 12 podcasts created by the Purdue Center for C-SPAN Scholarship and Engagement that use C-SPAN material and completing an assessment for each; or
- Earning a passing grade for one of **these approved courses** (or transferring in approved AP or departmental credit in lieu of taking a course)
  For more information visit the Civics Literacy Proficiency **website.**

Prerequisite Information:

For current pre-requisites for courses, click here.

Additional Requirements

Click here for Human Resource Developmental Supplemental Information.

Program Requirements

Fall 1st Year

- EDPS 10101 - Learning In Context-An Introduction To The Learning Sciences ♦
- SOC 10000 - Introductory Sociology ♦
- TLI 11200 - Foundations Of Organizational Leadership
- MA 15555 - Quantitative Reasoning or
- MA 15800 - Precalculus- Functions And Trigonometry
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity ♦ or
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World ♦

15 Credits

Spring 1st Year

- PSY 12000 - Elementary Psychology
- PHIL 11100 - Introduction To Ethics ♦
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World ♦ or
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity ♦
- TECH 12000 - Design Thinking In Technology ♦
- Science Foundation Selective - Credit Hours: 3.00

15-16 Credits

Fall 2nd Year

- COM 22400 - Communicating In The Global Workplace ♦
- MA 16010 - Applied Calculus I
- TLI 25500 - Foundations Of Human Resource Development
- TLI 31400 - Leading Innovation In Organizations
- TLI 31500 - New Product Development

15 Credits

Spring 2nd Year

- OBHR 33000 - Introduction To Organizational Behavior
- SOC 31600 - Industry And Society
- TLI 21300 - Project Management
- AGEC 21700 - Economics or
- ECON 21000 - Principles Of Economics or
- ECON 25100 - Microeconomics or
- ECON 25200 - Macroeconomics
- Science Selective - Credit Hours: 3.00

15 Credits

Fall 3rd Year

- TLI 35510 - Training And Talent Development
- TLI 35560 - Employment And Labor Law For The Human Resource Professionals
- TLI 35570 - Job Analysis And Job Design
- MGMT 30400 - Introduction To Financial Management
- MGMT 44690 - Negotiation And Decision Making ♦

15 Credits

Spring 3rd Year

- STAT 30100 - Elementary Statistical Methods ♦
- TLI 35520 - Organization Development And Change
- TLI 35530 - Strategic Planning In Human Resources
- TLI 35580 - The Individual And Organizational Performance
- MGMT 44301 - Management Of Human Resources ♦ or
- MGMT 44428 - Human Resources Management ♦

15 Credits

Fall 4th Year

- TLI 45560 - Professional Internship In Human Resources
- TLI 45570 - Global Human Resources
- MGMT 44430 - Staffing: Talent Acquisition ♦
- TLI 45580 - Human Resource Information Systems And People Analytics
- Elective - Credit Hours: 3.00

15 Credits

Spring 4th Year

- ENGL 42000 - Business Writing ♦
- TLI 45590 - Human Resources Capstone
- MGMT 44431 - Compensation: Total Rewards
- Elective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Notes

- 32 credits of upper division courses (30000 level or higher) must be taken at Purdue University, West Lafayette.
- ANY COURSE TAKEN AT PURDUE CAN BE ATTEMPTED NO MORE THAN THREE TIMES (INCLUSIVE OF W, WF, I AND IF).
- 2.0 Graduation GPA required for Bachelor of Science degree.
- "B-" or better required in all HRD major courses
- Students are required to complete a globalization experience that addresses the corresponding embedded outcome from the University Core Curriculum.

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

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

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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

Organizational Leadership Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Department/Program Major Courses (54 credits)

- TLI 10000 - Organizational Leadership Orientation
- TLI 11200 - Foundations Of Organizational Leadership
- TLI 15200 - Business Principles For Organizational Leadership
- TLI 20000 - Organization Leadership Mentorship
- TLI 21300 - Project Management
- TLI 30000 - Organizational Leadership Coaching
- TLI 31400 - Leading Innovation In Organizations
- TLI 31500 - New Product Development
- TLI 45580 - Human Resource Information Systems And People Analytics
- TLI 45800 - Leadership For Competitive Advantage
- OLS 34600 - Critical Thinking And Ethics
- OLS 37500 - Training Methods
- OLS 37800 - Labor And Management Relations
- OLS 38600 - Leadership For Organizational Change And Innovation
- OLS 45400 - Gender And Diversity In Management
- OLS 45000 - Advanced Project Management
- OLS 47700 - Conflict Management
- OLS 48700 - Leadership Philosophy
- OLS 58300 - Coaching And Mentoring In Organizations
- IET 41400 - Financial Analysis For Technology Systems
- Globalization Experience - Credit Hours: 0.00

Other Departmental Courses (57 Credits)

- EDPS 31500 - Collaborative Leadership: Interpersonal Skills ♦
- ENGL 42100 - Technical Writing ♦
- PSY 27200 - Introduction To Industrial-Organizational Psychology ♦
- PSY 12000 - Elementary Psychology (satisfies Behavioral Social Sciences for core)
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity ♦ (satisfies Written Communication for core)
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World ♦ (satisfies Oral Communication for core)
- STAT 11300 - Statistics And Society ♦
- STAT 30100 - Elementary Statistical Methods ♦
- TECH 12000 - Design Thinking In Technology ♦(satisfies both Information Literacy and Science, Technology and Society for core)
- TECH 22000 - Designing Technology For People ♦
- TECH 33000 - Technology And The Global Society
- MA 15555 - Quantitative Reasoning or
- MA 15800 - Precalculus- Functions And Trigonometry (satisfies Quantitative Reasoning for core)
- MGMT 20000 - Introductory Accounting or
- MGMT 21200 - Business Accounting
- ECON 21000 - Principles Of Economics or
- AGEC 21700 - Economics or
- ECON 25100 - Microeconomics or
- ECON 25200 - Macroeconomics
- Cornerstone Selective II - Credit Hours: 3.00
- Cornerstone Selective III - Credit Hours: 3.00
- Humanities Selective - Credit Hours: 3.00
- Science Selective - Credit Hours: 3.00
- Science Selective - Credit Hours: 3.00

Electives (9 credits)

University Requirements

University Core Requirements

For a complete listing of University Core Course Selectives, visit the <u>Provost's Website</u>.

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Civics Literacy Proficiency Requirement:

The Civics Literacy Proficiency activities are designed to develop civic knowledge of Purdue students in an effort to graduate a more informed citizenry.

Students will complete the Proficiency by passing a test of civic knowledge, and completing <u>one of three</u> paths:

- Attending six approved civics-related events and completing an assessment for each; or
- Completing 12 podcasts created by the Purdue Center for C-SPAN Scholarship and Engagement that use C-SPAN material and completing an assessment for each; or
- Earning a passing grade for one of **these approved courses** (or transferring in approved AP or departmental credit in lieu of taking a course)
  For more information visit the Civics Literacy Proficiency **website.**

Prerequisite Information:

For current pre-requisites for courses, click here.

Additional Requirements

Click here for Organizational Leadership Supplemental Information.

Optional Concentration Requirements

Business Intelligence Optional Concentration for Organizational Leadership

Organizational Design and Transformation Optional Concentration for Organizational Leadership

Project Management Optional Concentration for Organizational Leadership

Program Requirements

Fall 1st Year

- TECH 12000 - Design Thinking In Technology ♦
- TLI 10000 - Organizational Leadership Orientation
- TLI 11200 - Foundations Of Organizational Leadership
- MA 15555 - Quantitative Reasoning or
- MA 15800 - Precalculus- Functions And Trigonometry
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity ♦ or
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World ♦
- Humanities Selective - Credit Hours: 3.00

16 Credits

Spring 1st Year

- PSY 12000 - Elementary Psychology
- STAT 11300 - Statistics And Society ♦

- TLI 15200 - Business Principles For Organizational Leadership
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity ♦ or
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World ♦
- Science Selective - Credit Hours: 3.00

15 Credits

Fall 2nd Year

- TLI 20000 - Organization Leadership Mentorship
- STAT 30100 - Elementary Statistical Methods ♦
- PSY 27200 - Introduction To Industrial-Organizational Psychology ♦
- TECH 22000 - Designing Technology For People ♦
- Cornerstone Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

16 Credits

Spring 2nd Year

- OLS 38600 - Leadership For Organizational Change And Innovation
- TLI 21300 - Project Management
- AGEC 21700 - Economics or
- ECON 21000 - Principles Of Economics or
- ECON 25100 - Microeconomics or
- ECON 25200 - Macroeconomics
- MGMT 20000 - Introductory Accounting or
- MGMT 21200 - Business Accounting
- Science Selective - Credit Hours: 3.00

15 Credits

Fall 3rd Year

- OLS 37500 - Training Methods
- TECH 33000 - Technology And The Global Society
- TLI 30000 - Organizational Leadership Coaching
- TLI 31400 - Leading Innovation In Organizations
- TLI 31500 - New Product Development
- Cornerstone Selective - Credit Hours: 3.00

16 Credits

Spring 3rd Year

- EDPS 31500 - Collaborative Leadership: Interpersonal Skills ♦
- OLS 34600 - Critical Thinking And Ethics
- OLS 37800 - Labor And Management Relations
- TLI 45800 - Leadership For Competitive Advantage
- Elective - Credit Hours: 3.00

15 Credits

Fall 4th Year

- OLS 45400 - Gender And Diversity In Management
- OLS 47700 - Conflict Management
- OLS 48700 - Leadership Philosophy
- OLS 58300 - Coaching And Mentoring In Organizations
- IET 41400 - Financial Analysis For Technology Systems

15 Credits

Spring 4th Year

- ENGL 42100 - Technical Writing ♦
- OLS 45000 - Advanced Project Management
- TLI 45580 - Human Resource Information Systems And People Analytics
- Elective - Credit Hours: 3.00

12 Credits

Notes

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

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

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

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Technology 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.

Technology Education Website

Technology Education Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Major Required Courses (45 credits)

2.5 ETTE Core GPA required for Bachelor of Science degree, courses listed below.

- CGT 11000 - Technical Graphics Communications ♦ *
- ECET 22400 - Electronic Systems ♦ *
- TECH 12000 - Design Thinking In Technology ♦ (satisfies Information Literacy and Science Technology & Society Selective for core) *
- TLI 16100 - Prototyping In Engineering/Technology Education *
- TLI 26200 - Foundations Of Integrated STEM Education * •
- TLI 26500 - Teaching The TE Of STEM * •
- TLI 36100 - Engineering And Technology Education Instructional Planning And Evaluation * •
- TLI 36700 - Teaching Design And Innovation I * •
- TLI 46000 - Teaching Design And Innovation II * •
- TLI 46100 - Engineering/Technology Teacher Lab Planning * •
- TLI 46200 - Methods Of Teaching Engineering/Technology Education * •
- *EDCI 55800 may substitute for TLI 46200 if TLI 46200 is not available to the student. If TLI 46200 is offered, EDCI 55800 may be substituted at the ETTE Program Chair's discretion. When the Chair's discretion is used, written permission from the program chair will be required prior to enrollment in the course.*

Technical Electives (12 credits)

- Technical Electives[6] - Credit Hours: 3.00 *
- Technical Electives[6] - Credit Hours: 3.00 *
- Technical Electives[6] - Credit Hours: 3.00 *

- Technical Electives[6]- Credit Hours: 3.00 *
- *Technical electives may include any Polytechnic Institute course, except for Organization Leadership (OLS) classes. Engineering, Forestry, and Agricultural Systems courses not already required on the plan of study may also be used. The elective courses may all be in one area or they can come from a variety of areas.*

Professional Education Requirements (37 credits)

3.0 Prof Ed GPA required for Bachelor of Science degree, with each class at least a C- or higher, courses listed below plus the above TLI courses indicated with this symbol •

Foundational Courses

- EDCI 20500 - Exploring Teaching As A Career ♦ • (2 credits required)
- EDCI 27000 - Introduction To Educational Technology And Computing ♦ * • (1 credit required)
- EDCI 28500 - Multiculturalism And Education ♦ • (2 credits required; satisfies BSS for core)
- EDCI 35000 - Community Issues & Applications For Educators (1 credit required)
- EDCI 37001 - Teaching And Learning English As A New Language (2 credits required)
- EDPS 23500 - Learning And Motivation ♦ * • (2 credits required)
- EDPS 24000 - Children With Gifts, Creativity, And Talents
- EDPS 24800 - Differentiating Curriculum And Instruction
- EDPS 26501 - The Inclusive Classroom
- EDPS 32700 - Classroom Assessment ♦ • (1 credit required)
- EDPS 36201 - Positive Behavioral Supports (2 credits required)
- EDPS 43010 - Secondary Creating And Managing Learning Environments ♦ • (2 credits required)
- EDST 20010 - Educational Policies And Laws ♦ • (1 credit required)
- EDCI 20001 - Special Populations Seminar: Focus On Students With Disabilities And Differentiation Approaches or
- EDPS 20001 - Special Populations Seminar: Focus On Students With Disabilities And Differentiation Approaches
- EDCI 20002 - Special Populations Seminar: English Language Learners And Students With Gifts And Talents or
- EDPS 20002 - Special Populations Seminar: English Language Learners And Students With Gifts And Talents

Learner Pathway Selective (3 credits)

Pick one course from the selectives below in a pathway of your choice (required). Students can take two additional courses in the same pathway to complete requirements for an add-on teaching license in ELL or HA or take one additional course in the SPED pathway for a certificate in SPED.

English Language Learners
- EDCI 51900 - Teaching English Language Learners
- EDCI 52600 - Language Study For Educators
Special Education
- EDPS 21100 - Special Education Law, Policy, And Ethical Guidelines
High Ability
- EDPS 54200 - Curriculum And Program Development In Gifted Education
- EDPS 54500 - Social And Affective Development Of Gifted Students

Methods

- EDCI 30900 - Reading In Middle And Secondary Schools: Methods And Problems ♦ * • (1 credit required)

Capstone (12 credits)

- EDCI 49800 - Supervised Teaching •

Other Departmental Requirements (34 credits)

- COM 11400 - Fundamentals Of Speech Communication ♦ (satisfies Oral Communication for core)
- MA 15300 - College Algebra (satisfies Quantitative Reasoning for core)
- MA 15555 - Quantitative Reasoning
- PHYS 21800 - General Physics ♦ (satisfies Science for core)
- PSY 12000 - Elementary Psychology
- Humanities Selective [4] (satisfies Human Cultures Humanities for core)- Credit Hours: 3.00
- Lab Science Foundation Selective[1] (satisfies Science for core) - Credit Hours: 3.00
- Science Selective - Credit Hours: 3.00
- Written Communication Foundation Selective [3] (satisfies Written Communication for core)- Credit Hours: 3.00
- Advanced Communication Selective [5]- Credit Hours: 3.00
- Advanced Communication Selective [5]- Credit Hours: 3.00

Electives (4 credits)

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

University Requirements

University Core Requirements

For a complete listing of University Core Course Selectives, visit the <u>Provost's Website</u>.

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Civics Literacy Proficiency Requirement:

The Civics Literacy Proficiency activities are designed to develop civic knowledge of Purdue students in an effort to graduate a more informed citizenry.

Students will complete the Proficiency by passing a test of civic knowledge, and completing <u>one of three</u> paths:

- Attending six approved civics-related events and completing an assessment for each; or
- Completing 12 podcasts created by the Purdue Center for C-SPAN Scholarship and Engagement that use C-SPAN material and completing an assessment for each; or
- Earning a passing grade for one of **these approved courses** (or transferring in approved AP or departmental credit in lieu of taking a course)
  For more information visit the Civics Literacy Proficiency **website.**

Prerequisite Information:

For current pre-requisites for courses, click here.

Additional Requirements

Click here for Technology Education Supplemental Information.

K-12 Integrated STEM Optional Concentration

- K-12 Integrated STEM Optional Concentration for Education

Program Requirements

Fall 1st Year

- EDCI 20500 - Exploring Teaching As A Career
- EDST 20010 - Educational Policies And Laws
- TECH 12000 - Design Thinking In Technology ♦
- TLI 26200 - Foundations Of Integrated STEM Education ♦
- MA 15300 - College Algebra
- Written Communication Foundation Selective [3] - Credit Hours: 3.00

15 Credits

Spring 1st Year

- CGT 11000 - Technical Graphics Communications ♦
- COM 11400 - Fundamentals Of Speech Communication ♦
- EDCI 28500 - Multiculturalism And Education
- EDCI 35000 - Community Issues & Applications For Educators
- MA 15555 - Quantitative Reasoning
- TLI 16100 - Prototyping In Engineering/Technology Education

15 Credits

Fall 2nd Year

- EDCI 37001 - Teaching And Learning English As A New Language
- EDPS 24000 - Children With Gifts, Creativity, And Talents
- EDPS 36201 - Positive Behavioral Supports
- EDCI 20002 - Special Populations Seminar: English Language Learners And Students With Gifts And Talents or
- EDPS 20002 - Special Populations Seminar: English Language Learners And Students With Gifts And Talents
- Lab Science Foundation Selective [1] - Credit Hours: 3.00
- Humanities - Credit Hours: 3.00
- Elective[7] - Credit Hours: 3.00

15 Credits

Spring 2nd Year

- TLI 26500 - Teaching The TE Of STEM
- ECET 22400 - Electronic Systems ♦
- EDPS 23500 - Learning And Motivation ♦
- EDPS 24800 - Differentiating Curriculum And Instruction ♦
- EDPS 26501 - The Inclusive Classroom ♦
- PHYS 21800 - General Physics ♦
- EDCI 20001 - Special Populations Seminar: Focus On Students With Disabilities And Differentiation Approaches or
- EDPS 20001 - Special Populations Seminar: Focus On Students With Disabilities And Differentiation Approaches

16 Credits

Fall 3rd Year

- EDCI 27000 - Introduction To Educational Technology And Computing ♦
- EDCI 30900 - Reading In Middle And Secondary Schools: Methods And Problems ♦
- TLI 36700 - Teaching Design And Innovation I
- Learner Specialty Pathway Selective - Credit Hours: 3.00
- Technical Elective [6] - Credit Hours: 3.00
- Science Foundation Selective [2] - Credit Hours: 3.00
- Elective [7] - Credit Hours: 3.00

14 Credits

Spring 3rd Year

- TLI 36100 - Engineering And Technology Education Instructional Planning And Evaluation
- TLI 46000 - Teaching Design And Innovation II
- Advanced Communication Selective [5] - Credit Hours: 3.00
- Technical Elective [6] - Credit Hours: 3.00

- Technical Elective [6] - Credit Hours: 3.00

15 Credits

Fall 4th Year

- EDPS 32700 - Classroom Assessment
- EDPS 43010 - Secondary Creating And Managing Learning Environments
- TLI 46100 - Engineering/Technology Teacher Lab Planning
- TLI 46200 - Methods Of Teaching Engineering/Technology Education
- Advanced Communication Selective [5] - Credit Hours: 3.00
- Technical Elective [6] - Credit Hours: 3.00

15 Credits

Spring 4th Year

- EDCI 49800 - Supervised Teaching

12 Credits

Notes

● 3.0 Professional Education GPA required for Bachelor of Science degree, with at least a C- or higher.

* 2.5 Content GPA required for Bachelor of Science degree.

2.5 Graduation GPA required for Bachelor of Science degree.

Students must fulfill all Teacher Education Requirements [8]. (See Supplemental Information)

32 credits of upper division courses (30000 level or higher) must be taken at Purdue University, West Lafayette.

ANY COURSE TAKEN AT PURDUE CAN BE ATTEMPTED NO MORE THAN THREE TIMES (INCLUSIVE OF W, WF, I AND IF).

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

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Certificate

Teaching Secondary Education Computational Thinking Certificate

About the Certificate

Undergraduates completing the Certificate in Teaching Secondary Education Computational Thinking will be prepared to take the lead in providing vital instruction to secondary education students. Foundational principles of computational thinking, coupled with pedagogy, curriculum, and hands-on coursework, will enable these students to prepare students in important computational thinking principles.

Requirements for the Certificate (15 credits)

Engineering/Technology Teacher Education Courses (9 credits)

- TLI 16100 - Prototyping In Engineering/Technology Education
- TLI 26500 - Teaching The TE Of STEM
- TLI 36100 - Engineering And Technology Education Instructional Planning And Evaluation or
- EDPS 32700 - Classroom Assessment

Computer Science Courses (6 credits)

- CS 10100 - Digital Literacy or
- CNIT 13600 - Personal Computing Technology And Applications
- CS 17700 - Programming With Multimedia Objects or
- CNIT 17500 - Visual Programming or
- CGT 21500 - Computer Graphics Programming I

Prerequisite Information

For current pre-requisites for courses, click here.

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Minor

Biometrics Minor

Requirements for the Minor (15 credits)

Required Courses (15 credits)

- IT 54000 - Biometric Performance And Usability Analysis
- IT 54500 - Biometrics Technology And Applications
- STAT 30100 - Elementary Statistical Methods
- IET 31300 - Technology Innovation And Integration: Bar Codes To Biometrics
- TLI 49800 - Undergraduate Research In Technology Leadership And Innovation

Note

- All courses must have a grade of a "C" or higher.

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Design and Innovation Minor

This minor in design and innovation allows Purdue students the opportunity to pursue a focus on creating, developing, and financing a new innovative technology in a global society. The minor provides learning through a three course series of in design as well selections in global/cultural immersion, and explore economic development for innovation or study leadership in technology leadership.

Requirements for the Minor (15 credits)

A. Intro Design & Innovation (3-4 credits)

- TECH 12000 - Design Thinking In Technology or
- ANTH 21000 - Technology And Culture or
- MGMT 22000 - Making The Business Case or
- ENGR 13100 - Transforming Ideas To Innovation I and
- ENGR 13200 - Transforming Ideas To Innovation II

B. Core Design & Innovation (6 credits)

- TECH 22000 - Designing Technology For People or
- ANTH 38400 - Designing For People: Anthropological Approaches or
- TLI 36700 - Teaching Design And Innovation I
- TECH 34000 - Prototyping Technology For People or
- MGMT 39100 - Strategic Thinking And Decision-Making or
- TLI 46000 - Teaching Design And Innovation II

C. Global/Cultural Experience (3 credits)

- Study Abroad
- TECH 33000 - Technology And The Global Society
- ANTH 21000 - Technology And Culture
- ANTH 20500 - Human Cultural Diversity
- AD 39500 - History Of Design

D. Specialization (3 credits)

Specialization coursework should further student expertise toward their innovation interests. Recommendations provided below. Substitutions can be made for the specialization requirement based upon approval of the advisor.

- TLI 31400 - Leading Innovation In Organizations
- TLI 31500 - New Product Development
- TECH 33000 - Technology And The Global Society
- AD 21500 - Materials and Processes
- AD 23500 - Materials and Processes II
- AD 24600 - Design Drawing II
- AD 25600 - Presentation Techniques
- AD 31600 - Seminar On Ideas In Industrial Design I: Design And Society
- AD 39500 - History Of Design
- ANTH 21000 - Technology And Culture
- ANTH 38000 - Using Anthropology In The World
- MGMT 35200 - Strategic Management
- MGMT 44810 - Technology Strategy

Disclaimer

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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.

Requirements for the Minor (12 credits)

Required Courses (12 credits)

- TLI 11200 - Foundations Of Organizational Leadership
- TLI 15200 - Business Principles For Organizational Leadership or
- OLS 27400 - Applied Leadership
- TLI 21300 - Project Management or

- TLI 25300 - Principles Of Technology Strategy or
- OLS 28400 - Leadership Principles
- TLI 25400 - Leading Change In Technology Organizations or
- OLS 38600 - Leadership For Organizational Change And Innovation

Notes

- All TLI courses must have a grade of a "C" or higher.
- TLI 11100 is only accepted for the TLI 15200 or OLS 27400 OL minor requirement for the Fall 2015/Spring 2016 semesters.

Disclaimer

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