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 Program Guidelines 2017-18

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

The Purdue Polytechnic Institute Statewide is a unique partnership between education and business, industry and government. Polytechnic Statewide was created to extend Purdue's existing technology programs across the state where highly skilled workers with problem-solving skills are in great demand. Polytechnic Statewide also provides a mechanism for training presently employed people in state-of-the-industry technology.

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

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

Registration. Admitted students are enrolled at each Purdue location.

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

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

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

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

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

For Program Listings and Locations click 2016-17 Program Listings and Locations.

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.

Baccalaureate

Transdisciplinary Studies in Engineering Technology, BSTS

Design a personalized plan of study in our new transdisciplinary studies in engineering technology major, blending fields like humanities and business with engineering technology-focused disciplines.

Featuring hands-on team-based projects, transdisciplinary studies in engineering technology will help you become a lifelong learner. It's a program especially for the trailblazers, the challenge-seekers, the pioneers with an interest in engineering technology - the students who are independent minded, ambitious, creative, passionate, reflective, and inventive.

Transdisciplinary studies in engineering technology is an educational experience unlike any other because it combines individualized learning with close mentoring by faculty experts and a competency based curriculum which clearly defines each ability, skill, behavior, and body of knowledge that you'll master.

Employers today have many positions with job titles that didn't exist only a few years ago. This major provides you with broad technical competence and the abilities to think critically, to communicate effectively, and to adapt and thrive in our ever-changing world.

This is one of two competency-based degrees offered by the Purdue Polytechnic Institute.

Special features

- In each semester's Design Lab and Seminar learning environments, you will learn discipline-specific theory and how to apply it to real-world problems.
- It's a student-centered culture called "competency-based education" focuses more on "show us what you can do with what you know" and less on memorization.
- You will create an electronic portfolio which documents your abilities and mastery of subjects - which you may choose to share with potential employers.

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (36 credits)

Required Major Courses (36 credits)

- PTEC 10800 - Guided Exploration
- PTEC 20700 - ePortfolio I
- PTEC 20800 - Formation And Immersion
- PTEC 30800 - Deep Immersion
- PTEC 40700 - ePortfolio II
- PTEC 40800 - Capstone And Planning
- Intercultural Experience - Credit Hours: 0.00
- Professional Experience - Credit Hours: 0.00

Other Departmental/Program Course Requirements (84 credits)

- Written Communication - Credit Hours: 4.00
- Oral Communication - Credit Hours: 3.00
- Information Literacy - Credit Hours: 3.00
- Quantitative Reasoning - Credit Hours: 3.00
- Science - Credit Hours: 7.00
- Science, Technology and Society - Credit Hours: 3.00
- Human Cultures - Credit Hours: 3.00
- Behavioral/Social Science - Credit Hours: 3.00
- Advanced MA (>15999) or STAT (>19999) - Credit Hours: 3.00
- >20000 Humanities or Social Sci - Credit Hours: 3.00
- >30000 level Oral Comm or Written Comm - Credit Hours: 3.00
- >09999 Technology Selective (Any AT, BCM, CGT, CNIT, ECET, ENGT, IET, IT, MET, MFET, OLS, TECH, TLI course 10000 level or higher) - Credit Hours: 3.00

- >10000 Disciplinary Knowledge - Credit Hours: 9.00
- >20000 Disciplinary Knowledge - Credit Hours: 14.00
- >30000 Disciplinary Knowledge - Credit Hours: 12.00
- >40000 Disciplinary Knowledge - Credit Hours: 9.00

University Core Requirements

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

For a complete listing of course selectives, visit the Provost's Website.

Prerequisite Information:

For current pre-requisites for courses, click here.

Additional Requirements

Click here for Transdisciplinary Studies in Engineering Technology Supplemental Information.

Program Requirements

Fall 1st Year

- PTEC 20700 - ePortfolio I [2]
- PTEC 10800 - Guided Exploration [2]
- >09999 Technology Selective - Credit Hours: 3.00
- Oral Communication[3,4] - Credit Hours: 3.00
- Math Quant Reasoning[3,4] - Credit Hours: 3.00
- >10000 level Disciplinary Knowledge[4] - Credit Hours: 3.00

16.5 Credits

Spring 1st Year

- PTEC 20700 - ePortfolio I [2]
- PTEC 10800 - Guided Exploration [2]
- Humanities[3,4] - Credit Hours: 3.00

- Written Communication[3,4]- Credit Hours: 3.00
- Science[3,4] - Credit Hours: 4.00

14.5 Credits

Fall 2nd Year

- PTEC 20700 - ePortfolio I [2]
- PTEC 20800 - Formation And Immersion [2]
- >09999 level ET/Related Area - CreditHours: 6.00
- Science, Tech, and Society[3,4] - CreditHours: 3.00

13.5 Credits

Spring 2nd Year

- PTEC 20700 - ePortfolio I [2]
- PTEC 20800 - Formation And Immersion [2]
- >19999 level ET/Related Area - CreditHours: 3.00
- Science[3,4] - Credit Hours: 3.00
- >19999 level Humanities[4] - Credit Hours: 3.00
- Information Literacy[3,4] - Credit Hours: 3.00

16.5 Credits

Fall 3rd Year

- PTEC 40700 - ePortfolio II ²
- PTEC 30800 - Deep Immersion ²
- Advanced MA (>15999) or STAT (>19999) - Credit Hours: 3.00
- >19999 level ET/Related Area - CreditHours: 8.00

15.5 Credits

Spring 3rd Year

- PTEC 40700 - ePortfolio II [2]
- PTEC 30800 - Deep Immersion [2]
- >19999 level ET/Related Area - Credit Hours: 3.00
- >29999 level ET/Related Area - Credit Hours: 3.00
- >29999 level OC or WR - Credit Hours: 3.00
- Behavioral/Social Science[3,4] - Credit Hours: 3.00

16.5 Credits

Fall 4th Year

- PTEC 40700 - ePortfolio II [2]
- PTEC 40800 - Capstone And Planning [2]
- >29999 level ET/Related Area - CreditHours: 9.00

13.5 Credits

Spring 4th Year

- PTEC 40700 - ePortfolio II [2]
- PTEC 40800 - Capstone And Planning [2]
- >39999 level ET/Related Area - CreditHours: 9.00

13.5 Credits

Notes

1. Non-course degree requirement: Student demonstration of expertise in eight broad competencies. Monitored and reviewed continuously in Transdisciplinary Learning Experiences (PTEC 10800, 20800, ...). ePortfolio is formally assessed 4 times during the plan of study to satisfy this requirement.
2. These are courses specifically designed for this degree. ePortfolio (PTEC 20700, 40700) are pass/no pass. Transdisciplinary Learning Experiences (PTEC 10800-40800) are variable credit.
3. Any courses from the Undergraduate Curriculum Council (UCC) Approved Course List to satisfy the appropriate foundational core requirement. Acronyms are as follows: BSS - Behavioral/Social Sciences, HUM - Humanities, IL - Information Literacy, OC - Oral Communication, QR - Quantitative Reasoning, STS - Science, Technology and Society, WC - Written Communication. It is preferred that students take one course from physical sciences and one from life sciences.
4. Any course for which the student meets the prerequisites and meets their personal and professional goals as determined by the student in consultation with their faculty mentor.
5. By the end of the Semester 3, students identify their mission and, with the help of their faculty mentor, develop a detailed plan of learning. At this time, they identify one or more technology disciplines and at least one humanities discipline. For example, Computing (CIT, CGT or ECET), Engineering Technology (ECET, MET or MFET), Built environment (CM), Aviation (AT), or Technology Leadership and Innovation (TLI), and non-technology areas such as history, philosophy, communication, etc.
6. A 2.0 Graduation GPA are required for the Bachelor of Science degree.
7. Students must earn a "D-" or better in all courses unless otherwise noted.
8. Courses at Purdue University may only be attempted a maximum of three (3) times, including W, WF, I, IF and all graded attempts.
9. 32 credit hours of 30000-level or higher courses must be completed at Purdue University.

Critical Course

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

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.

Transdisciplinary Studies in Technology, BSTS

Follow your passions and discover new ones in a Bachelor of Science program at Purdue University. You will design a personalized plan of study in our new transdisciplinary studies in technology major, blending fields like humanities and business with these technology-focused disciplines:

- Computing and graphics
- Construction management
- Engineering technologies
- Leadership and innovation
- Aviation technologies

Featuring hands-on team-based projects, transdisciplinary studies in technology will help you become a lifelong learner. It's a program especially for the trailblazers, the challenge-seekers, the pioneers - the students who are independent minded, ambitious, creative, passionate, reflective, and inventive.

A new major which made national headlines, transdisciplinary studies in technology is an educational experience unlike any other because it combines individualized learning with close mentoring by faculty experts and a competency based curriculum which clearly defines each ability, skill, behavior, and body of knowledge that you'll master.

Employers today have many positions with job titles that didn't exist only a few years ago. Want to forge your own path? Transdisciplinary studies in technology will provide you with broad technical competence and the abilities to think critically, to communicate effectively, and to adapt and thrive in our ever-changing world.

This unique competency-based degree is offered only by the Purdue Polytechnic Institute, one of the 10 academic colleges at Purdue University's main campus.

Special features

- In each semester's unique Design Lab and Seminar learning environments, you will learn discipline-specific theory and how to apply it to real-world problems.
- It's a student-centered culture called "" which focuses more on "show us what you can do with what you know" and less on memorization.
- You will create an electronic portfolio which documents your abilities and mastery of subjects - which you may choose to share with potential employers.
- Your peers might be studying different disciplines, so each of you will learn about different topics and contribute unique skills to make projects successful - a parallel of work environments common in industry.

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (36 credits)

Transdisciplinary Studies in Technology Required Major Courses (36 credits)

- PTEC 10800 - Guided Exploration
- PTEC 20700 - ePortfolio I
- PTEC 20800 - Formation And Immersion
- PTEC 30800 - Deep Immersion
- PTEC 40700 - ePortfolio II
- PTEC 40800 - Capstone And Planning

Other Departmental /Program Course Requirements (84 credits)

- Written Communication - Credit Hours: 4.00
- Oral Communication - Credit Hours: 3.00
- Information Literacy - Credit Hours: 3.00
- Quantitative Reasoning - Credit Hours: 3.00
- Science - Credit Hours: 7.00
- Science, Technology and Society - Credit Hours: 3.00
- Human Cultures - Credit Hours: 3.00
- Behavioral/Social Science - Credit Hours: 3.00
- Advanced MA (>15999) or STAT (>19999) - Credit Hours: 3.00
- >20000 Humanities - Credit Hours: 3.00
- >30000 level Oral Comm or Written Comm - Credit Hours: 3.00
- >09999 Technology Selective (Any AT, BCM, CGT, CNIT, ECET, ENGT, IET, IT, MET, MFET, OLS, TECH, TLI 10000 level or higher) - Credit Hours: 3.00
- >10000 Disciplinary Knowledge - Credit Hours: 9.00
- >20000 Disciplinary Knowledge - Credit Hours: 13.00
- >30000 Disciplinary Knowledge - Credit Hours: 12.00
- >40000 Disciplinary Knowledge - Credit Hours: 9.00

University Core Requirements

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

For a complete listing of course selectives, visit the Provost's Website.

Prerequisite Information:

For current pre-requisites for courses, click here.

Additional Requirements

Click here for Transdisciplinary Studies in Technology Supplemental Information.

Program Requirements

Fall 1st Year

- PTEC 20700 - ePortfolio I [2]
- PTEC 10800 - Guided Exploration [2]
- >09999 Technology Selective - Credit Hours: 3.00
- Oral Communication[3,4] - Credit Hours: 3.00
- Math Quant Reasoning[3,4] - Credit Hours: 3.00
- >10000 level Disciplinary Knowledge[4] - Credit Hours: 3.00

16.5 Credits

Spring 1st Year

- PTEC 20700 - ePortfolio I [2]
- PTEC 10800 - Guided Exploration [2]
- Humanities[3,4] - Credit Hours: 3.00
- Written Communication[3,4]- Credit Hours: 4.00
- Science[3,4] - Credit Hours: 4.00

15.5 Credits

Fall 2nd Year

- PTEC 20700 - ePortfolio I [2]
- PTEC 20800 - Formation And Immersion [2]
- >10000 level Disciplinary Knowledge[4] - Credit Hours: 3.00
- Science, Tech, and Society[3,4] - Credit Hours: 3.00
- >10000 level Disciplinary Knowledge[4] - Credit Hours: 3.00

13.5 Credits

Spring 2nd Year

- PTEC 20700 - ePortfolio I [2]
- PTEC 20800 - Formation And Immersion [2]
- >20000 level Disciplinary Knowledge[4] - Credit Hours: 3.00
- Science[3,4] - Credit Hours: 3.00
- >20000 level Humanities[4] - Credit Hours: 3.00
- Information Literacy[3,4] - Credit Hours: 3.00

16.5 Credits

Fall 3rd Year

- PTEC 40700 - ePortfolio II [2]
- PTEC 30800 - Deep Immersion [2]
- Advanced MATH (>15999) or STAT (>19999) - Credit Hours: 3.00
- >20000 level Disciplinary Knowledge[4] - Credit Hours: 3.00
- >20000 level Disciplinary Knowledge[4] - Credit Hours: 4.00

14.5 Credits

Spring 3rd Year

- PTEC 40700 - ePortfolio II [2]
- PTEC 30800 - Deep Immersion [2]
- >20000 level Disciplinary Knowledge[4] - Credit Hours: 3.00
- >30000 level Disciplinary Knowledge[4] - Credit Hours: 3.00
- >30000 level OC or WC[4] - Credit Hours: 3.00
- Behavior Social Sciences[3,4] - Credit Hours: 3.00

16.5 Credits

Fall 4th Year

- PTEC 40700 - ePortfolio II [2]
- PTEC 40800 - Capstone And Planning [2]
- >30000 level Disciplinary Knowledge[4] - Credit Hours: 3.00
- >30000 level Disciplinary Knowledge[4] - Credit Hours: 3.00
- >30000 level Disciplinary Knowledge[4] - Credit Hours: 3.00

13.5 Credits

Spring 4th Year

- PTEC 40700 - ePortfolio II [2]
- PTEC 40800 - Capstone And Planning [2]
- >40000 level Disciplinary Knowledge[4] - Credit Hours: 3.00

- >40000 level Disciplinary Knowledge[4] - Credit Hours: 3.00
- >40000 level Disciplinary Knowledge[4] - Credit Hours: 3.00

13.5 Credits

Notes

1. Non-course degree requirement: Student demonstration of expertise in eight broad competencies. Monitored and reviewed continuously in Transdisciplinary Learning Experiences (PTEC 10800, 20800, ...). ePortfolio is formally assessed 4 times during the plan of study to satisfy this requirement.

2. These are courses specifically designed for this degree. ePortfolio (PTEC 20700, 40700) are pass/no pass. Transdisciplinary Learning Experiences (PTEC 10800-40800) are variable credit.

3. Any courses from the Undergraduate Curriculum Council (UCC) Approved Course List to satisfy the appropriate foundational core requirement. Acronyms are as follows: BSS - Behavioral/Social Sciences, HUM - Humanities, IL - Information Literacy, OC - Oral Communication, QR - Quantitative Reasoning, STS - Science, Technology and Society, WC - Written Communication. It is preferred that students take one course from physical sciences and one from life sciences.

4. Any course for which the student meets the prerequisites and meets their personal and professional goals as determined by the student in consultation with their faculty mentor.

5. By the end of the Semester 3, students identify their mission and, with the help of their faculty mentor, develop a detailed plan of learning. At this time, they identify one or more technology disciplines and at least one humanities discipline. For example, Computing (CIT, CGT or ECET), Engineering Technology (ECET, MET or MFET), Built environment (CM), Aviation (AT), or Technology Leadership and Innovation (TLI), and non-technology areas such as history, philosophy, communication, etc.

6. A 2.0 Graduation GPA are required for the Bachelor of Science degree.

7. Students must earn a "D-" or better in all courses unless otherwise noted.

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

9. 32 credit hours of 30000-level or higher courses must be completed at Purdue University.

Critical Course

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

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

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (60 credits)

Required Major Courses (60 credits)

- AT 10000 - Introduction To Aviation Technology
- AT 10200 - Aviation Business
- AT 10600 - Basic Aircraft Science
- AT 20200 - Aerospace Vehicle Systems Design, Analysis And Operations
- AT 20300 - Aviation Operations Management
- 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 33502 - Avionics Systems
- AT 37002 - Advanced Aircraft Powerplants
- AT 37600 - Aircraft Gas Turbine Engine Technology I
- AT 38500 - Design Support Analysis
- AT 44502 - Aircraft Electronics
- AT 47600 - Aircraft Gas Turbine Engine Technology II
- AT 49600 - Applied Research Proposal
- AT 49700 - Applied Research Project
- Globalization - Credit Hours: 0.00
- Internship - Credit Hours: 0.00
- Leadership - Credit Hours: 0.00

Other Departmental /Program Course Requirements (57 credits)

- HIST 38400 - History Of Aviation (satisfies Human Cultures Humanities for core)
- PHYS 21800 - General Physics (satisfies Science Selective for core) or
- PHYS 22000 - General Physics (satisfies Science Selective 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)
- ENGL 42100 - Technical Writing
- COM 25100 - Communication, Information, And Society

- STAT 30100 - Elementary Statistical Methods
- AT 20501 - Statics For Aerostructures
- CGT 16300 - Graphical Communication And Spatial Analysis
- Behavioral/Social Science Foundational Selective (satisfies Human Culture Behavioral/Social Science for core) - Credit Hours: 3.00
- Economics Selective - Credit Hours: 3.00
- Science Foundational 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

Electives (3 credits)

Any Course, any subject. Credit Hours: 3.00

University Core Requirements

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

For a complete listing of course selectives, visit the Provost's Website.

Prerequisite Information:

For current pre-requisites for courses, click here.

Additional Degree Requirements

Click here for Aviation Technology Supplemental Information.

Program Requirements

Fall 1st Year

- AT 10000 - Introduction To Aviation Technology
- AT 10200 - Aviation Business
- AT 10600 - Basic Aircraft Science
- MA 15800 - Precalculus- Functions And Trigonometry
- TECH 12000 - Design Thinking In Technology
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity

16 Credits

Spring 1st Year

- AT 20802 - Aircraft Materials
- CGT 16300 - Graphical Communication And Spatial Analysis
- HIST 38400 - History Of Aviation
- MA 16010 - Applied Calculus I
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World

14 Credits

Fall 2nd Year

- AT 20200 - Aerospace Vehicle Systems Design, Analysis And Operations
- AT 20300 - Aviation Operations Management
- AT 26200 - Basic Aircraft Powerplant Technology
- AT 26700 - Fixed And Rotary Wing Assemblies
- AT 27200 - Introduction To Composite Technology

16 Credits

Spring 2nd Year

- AT 20501 - Statics For Aerostructures
- AT 26502 - Aircraft Electrical Systems
- AT 27800 - Nondestructive Testing For Aircraft
- PHYS 21800 - General Physics or
- PHYS 22000 - General Physics

13 Credits

Fall 3rd Year

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

15 Credits

Spring 3rd Year

- AT 30802 - Aircraft Materials Processes

- AT 33502 - Avionics Systems
- AT 37600 - Aircraft Gas Turbine Engine Technology I
- AT 38500 - Design Support Analysis
- ENGL 42100 - Technical Writing

15 Credits

Fall 4th Year

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

16 Credits

Spring 4th Year

- AT 49700 - Applied Research Project
- COM 25100 - Communication, Information, And Society
- Thematic Area Selective (AT 37200 for A&P) - Credit Hours: 3.00
- Thematic Area Selective (AT 40200 for A&P) - Credit Hours: 3.00
- Thematic Area Selective (AT 47200 for A&P) - Credit Hours: 3.00

15 Credits

Note

2.0 Graduation GPA required for Bachelor of Science degree.

Critical Course

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

Disclaimer

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

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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

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
- AT 35900 - Airport Management
- AT 36201 - Aviation Operations
- AT 41200 - Aviation Finance
- AT 42101 - Managerial Economics In Aviation
- AT 42201 - Aerospace Risk Management
- 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)

- HIST 38400 - History Of Aviation (satisfies Human Cultures Humanities for core)
- PHYS 21800 - General Physics (satisfies Science Selective for core) or
- PHYS 22000 - General Physics (satisfies Science Selective 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 Quant Reasoning Selective for core)
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning Selective for core)
- ENGL 42100 - Technical Writing
- COM 25100 - Communication, Information, And Society
- STAT 30100 - Elementary Statistical Methods
- Behavioral/Social Science Foundational Selective (satisfies Human Culture Behavioral/Social Science for core) - Credit Hours: 3.00
- Economics Selective - Credit Hours: 3.00
- Science Foundational 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

Electives (9 credits)

Any course, any subject. Credit Hours: 9.00

University Core Requirements

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

For a complete listing of course selectives, visit the Provost's Website.

Prerequisite Information:

For current pre-requisites for courses, click here.

Additional Degree Requirements

Click here for Aviation Technology Supplemental Information.

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
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World
- Calculus Selective - Credit Hours: 3.00

15 Credits

Fall 2nd Year

- AT 20300 - Aviation Operations Management
- AT 25200 - Aviation Projects
- MGMT 20000 - Introductory Accounting
- PHYS 21800 - General Physics or
- PHYS 22000 - General Physics
- HIST 38400 - History Of Aviation

16 Credits

Spring 2nd Year

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

15 Credits

Fall 3rd Year

- AT 34001 - Aerospace Business Statistics
- STAT 30100 - Elementary Statistical Methods
- AT 35900 - Airport Management
- Thematic Area Selective - Credit Hours: 3.00
- Behavioral/Social Science Selective - Credit Hours: 3.00

15 Credits

Spring 3rd Year

- AT 42101 - Managerial Economics In Aviation
- AT 47500 - Aviation Law
- ENGL 42100 - Technical Writing
- 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
- AT 49401 - Capstone Project Proposal
- MGMT 30400 - Introduction To Financial Management
- Thematic Area Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

17 Credits

Spring 4th Year

- AT 42201 - Aerospace Risk Management
- AT 49501 - Applied Capstone Research Project
- COM 25100 - Communication, Information, And Society
- Thematic Area Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

13 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.

Critical Course

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

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.

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

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 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
- Globalization - Credit Hours: 0.00
- Internship - Credit Hours: 0.00
- Leadership - Credit Hours: 0.00

Other Departmental/Program Course Requirements (52 credits)

- HIST 38400 - History Of Aviation (satisfies Human Cultures Humanities for core)

- PHYS 21800 - General Physics (satisfies Science Selective for core) or
- PHYS 22000 - General Physics (satisfies Science Selective 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)
- ENGL 42100 - Technical Writing
- COM 25100 - Communication, Information, And Society
- STAT 30100 - Elementary Statistical Methods
- Behavioral/Social Science Foundational Selective (satisfies Human Culture Behavioral/Social Science 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

Electives (9 credits)

Any Course, any subject. Credit Hours : 9.00

University Core Requirements

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

For a complete listing of course selectives, visit the Provost's Website.

Prerequisite Information:

For current pre-requisites for courses, click here.

Additional Degree Requirements

Click here for Aviation Technology Supplemental Information.

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
- MGMT 20000 - Introductory Accounting
- HIST 38400 - History Of Aviation

- PHYS 21800 - General Physics or
- PHYS 22000 - General Physics

16 Credits

Spring 2nd Year

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

- AT 36201 - Aviation Operations
- MGMT 20100 - Management Accounting I
- Economics Selective - Credit Hours: 3.00
- Science Foundational Selective - Credit Hours: 3.00

15 Credits

Fall 3rd Year

- AT 33800 - Airline Management
- STAT 30100 - Elementary Statistical Methods
- Aviation Management 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 42101 - Managerial Economics In Aviation
- AT 47500 - Aviation Law
- ENGL 42100 - Technical Writing
- Thematic Area Selective - 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
- AT 49401 - Capstone Project Proposal
- Thematic Area Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

17 Credits

Spring 4th Year

- AT 49501 - Applied Capstone Research Project
- COM 25100 - Communication, Information, And Society
- Thematic Area Selective - Credit Hours: 3.00
- Aviation Management Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

13 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.

Critical Course

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

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

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
- Globalization - Credit Hours: 0.00
- Internship - Credit Hours: 0.00
- Leadership - Credit Hours: 0.00

Other Departmental/Program Course Requirements (52 credits)

- HIST 38400 - History Of Aviation
  (satisfies Human Cultures Humanities for core)

- PHYS 21800 - General Physics (satisfies Science Selective for core) or
- PHYS 22000 - General Physics (satisfies Science Selective 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)
- ENGL 42100 - Technical Writing
- COM 25100 - Communication, Information, And Society
- STAT 30100 - Elementary Statistical Methods
- Behavioral/Social Science Foundational Selective (satisfies Human Culture Behavioral/Social Science 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

Electives (9 credits)

Any Course, any subject. Credit Hours: 9.00

University Core Requirements

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

For a complete listing of course selectives, visit the Provost's Website.

Prerequisite Information:

For current pre-requisites for courses, click here.

Additional Degree Requirements

Click here for Aviation Technology Supplemental Information.

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
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World
- TECH 12000 - Design Thinking In Technology
- MA 16010 - Applied Calculus I

15 Credits

Fall 2nd Year

- AT 20300 - Aviation Operations Management
- AT 25200 - Aviation Projects
- MGMT 20000 - Introductory Accounting
- HIST 38400 - History Of Aviation

- PHYS 21800 - General Physics or
- PHYS 22000 - General Physics

16 Credits

Spring 2nd Year

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

15 Credits

Fall 3rd Year

- AT 35900 - Airport Management
- STAT 30100 - Elementary Statistical Methods
- Aviation Management 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 42101 - Managerial Economics In Aviation
- AT 47500 - Aviation Law
- Thematic Area Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00
- ENGL 42100 - Technical Writing

15 Credits

Fall 4th Year

- AT 41200 - Aviation Finance

- AT 45100 - Airport Operations
- AT 48100 - Aviation Safety Problems
- AT 49401 - Capstone Project Proposal
- Thematic Area Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

17 Credits

Spring 4th Year

- AT 45900 - Airport Manager Certification
- AT 49501 - Applied Capstone Research Project
- COM 25100 - Communication, Information, And Society
- Thematic Area Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

13 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.

Critical Course

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

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

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 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
- Globalization - Credit Hours: 0.00
- Internship - Credit Hours: 0.00
- Leadership - Credit Hours: 0.00

Other Departmental /Program Course Requirements (52 credits)

- HIST 38400 - History Of Aviation (satisfies Human Cultures Humanities for core)

- PHYS 21800 - General Physics (satisfies Science for core) or
- 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)
- ENGL 42100 - Technical Writing
- COM 25100 - Communication, Information, And Society

- STAT 30100 - Elementary Statistical Methods
- Behavioral/Social Science Foundational Selective (satisfies Human Culture Behavioral/Social Science for core) - Credit Hours: 3.00
- Economics Selective - Credit Hours: 3.00
- Science Foundational 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

Electives (9 credits)

Any Course, any subject. Credit Hours: 9.00

University Core Requirements

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

For a complete listing of course selectives, visit the Provost's Website.

Prerequisite Information:

For current pre-requisites for courses, click here.

Additional Degree Requirements

Click here for Aviation Technology Supplemental Information.

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
- MGMT 20000 - Introductory Accounting
- PHYS 21800 - General Physics or
- PHYS 22000 - General Physics
- HIST 38400 - History Of Aviation

16 Credits

Spring 2nd Year

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

15 Credits

Fall 3rd Year

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

- ENGL 42100 - Technical Writing
- 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
- AT 49401 - Capstone Project Proposal
- Aviation Management Selective - Credit Hours: 3.00
- Thematic Area Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

17 Credits

Spring 4th Year

- AT 49501 - Applied Capstone Research Project
- COM 25100 - Communication, Information, And Society
- Thematic Area Selective - Credit Hours: 3.00
- Aviation Management Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

13 Credits

Note

2.0 Graduation GPA required for Bachelor of Science degree.

Critical Course

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

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

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (60 credits)

Required Major Courses (60 credits)

- AT 10000 - Introduction To Aviation Technology
- AT 10200 - Aviation Business
- AT 10300 - Aerospace Vehicle Propulsion And Tracking Systems
- AT 14400 - Private Pilot Lectures
- AT 20200 - Aerospace Vehicle Systems Design, Analysis And Operations
- AT 20300 - Aviation Operations Management
- AT 21000 - Ground Trainer I
- AT 21100 - Ground Trainer II
- AT 22300 - Human Factors For Flight Crews
- AT 24900 - Instrument Flight Lectures
- 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 39600 - Turbine Aircraft Flight Laboratory
- AT 41600 - Airline Indoctrination
- AT 47500 - Aviation Law
- AT 48700 - Transport Aircraft Simulation Laboratory
- AT 49800 - Aviation Technology Capstone

- AT 14500 - Private Pilot Flight or
- AT 14502 - Private Pilot Flight Under Federal Aviation Regulations Part 141

- AT 24300 - Commercial Flight I or
- AT 24302 - Commercial Flight I Under Federal Aviation Regulations Part 141

- AT 24800 - Commercial Flight II or
- AT 24802 - Commercial Flight II Under Federal Aviation Regulations Part 141

- AT 25300 - Instrument Flight or
- AT 25302 - Instrument Flight Under Federal Aviation Regulations Part 141

- Globalization - Credit Hours: 0.00
- Internship - Credit Hours: 0.00
- Leadership - Credit Hours: 0.00

Other Departmental /Program Course Requirements (52 credits)

- PHYS 21800 - General Physics (satisfies Science Selective for core) or
- PHYS 22000 - General Physics (satisfies Science Selective for core)

- HIST 38400 - History Of Aviation (satisfies Human Cultures Humanities 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)
- ENGL 42100 - Technical Writing
- COM 25100 - Communication, Information, And Society
- Behavioral/Social Science Foundational Selective (satisfies Human Culture Behavioral/Social Science for core) - Credit Hours: 3.00
- Economics Selective - Credit Hours: 3.00
- STAT 30100 - Elementary Statistical Methods
- Science Foundational 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

Electives (8 credits)

Any Course, any subject. Credit Hours: 8.00

Additional Requirements

Click here for Aviation Technology Supplemental Information.

University Core Requirements

- Human Cultures Humanities
- Human Cultures Behavioral/Social Science
- Information Literacy
- Science #1

- Science #2
- Science, Technology, and Society
- Written Communication
- Oral Communication
- Quantitative Reasoning

For a complete listing of course selectives, visit the Provost's 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
- MA 15800 - Precalculus- Functions And Trigonometry
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity

- AT 14500 - Private Pilot Flight or
- AT 14502 - Private Pilot Flight Under Federal Aviation Regulations Part 141

16 Credits

Spring 1st Year

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

- AT 24300 - Commercial Flight I or
- AT 24302 - Commercial Flight I Under Federal Aviation Regulations Part 141

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 24900 - Instrument Flight Lectures

- AT 24800 - Commercial Flight II or
- AT 24802 - Commercial Flight II Under Federal Aviation Regulations Part 141

15 Credits

Spring 2nd Year

- AT 21100 - Ground Trainer II
- AT 25400 - Commercial Flight Lectures

- PHYS 21800 - General Physics or
- PHYS 22000 - General Physics

- AT 25300 - Instrument Flight or
- AT 25302 - Instrument Flight Under Federal Aviation Regulations Part 141

- Thematic Area Selective - Credit Hours: 3.00
- Behavioral / Social Science Selective - Credit Hours: 3.00

16 Credits

Fall 3rd Year

- AT 35300 - Multi-Engine Flight
- AT 35400 - Turbine Flight Operations Lecture
- HIST 38400 - History Of Aviation
- Elective - Credit Hours: 1.00
- Thematic Area Selective - Credit Hours: 3.00
- Science Foundational Selective - Credit Hours: 3.00

13 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
- STAT 30100 - Elementary Statistical Methods
- AT 47500 - Aviation Law

16 Credits

Fall 4th Year

- AT 39600 - Turbine Aircraft Flight Laboratory
- COM 25100 - Communication, Information, And Society
- ENGL 42100 - Technical Writing
- Economics Selective - Credit Hours: 3.00
- Thematic Area Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

16 Credits

Spring 4th Year

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

14 Credits

Note

- 2.0 Graduation GPA required for Bachelor of Science degree.

Critical Course

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

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.

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

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 10900 - Unmanned Aerial Systems Design And Construction
- AT 11900 - Unmanned Aerial Systems Inspection And Repair
- AT 14400 - Private Pilot Lectures
- 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 28600 - National Airspace Systems Operations
- AT 30900 - Unmanned Autonomous Aerial Systems
- 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: 15.00
- Globalization - Credit Hours: 0.00
- Internship - Credit Hours: 0.00
- Leadership- Credit Hours: 0.00

Other Departmental /Program Course Requirements (52 credits)

- PHYS 21800 - General Physics (satisfies Science Selective for core)
- PHYS 22000 - General Physics (satisfies Science Selective for core)

- HIST 38400 - History Of Aviation (satisfies Human Cultures Humanities 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)
- ENGL 42100 - Technical Writing
- COM 25100 - Communication, Information, And Society
- STAT 30100 - Elementary Statistical Methods

- Behavioral/Social Science Foundational Selective (satisfies Human Culture Behavioral/Social Science 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

Electives (9 credits)

Any Course, any subject. Credit Hours: 9.00

Additional Requirements

Click here for Aviation Technology Supplemental Information.

Click here for Unmanned Aerial Systems Supplemental Information.

University Core Requirements

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

For a complete listing of course selectives, visit the Provost's Website.

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AT 10000 - Introduction To Aviation Technology
- AT 10900 - Unmanned Aerial Systems Design And Construction
- AT 14400 - Private Pilot Lectures
- MA 15800 - Precalculus- Functions And Trigonometry
- TECH 12000 - Design Thinking In Technology

14 Credits

Spring 1st Year

- AT 10200 - Aviation Business
- AT 10300 - Aerospace Vehicle Propulsion And Tracking Systems
- AT 11900 - Unmanned Aerial Systems Inspection And Repair
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity
- MA 16010 - Applied Calculus I

15 Credits

Fall 2nd Year

- AT 20300 - Aviation Operations Management
- AT 20900 - Civilian Unmanned Aerial Systems

- PHYS 21800 - General Physics or
- PHYS 22000 - General Physics

- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World
- UAS Related Selective - 3.00

16 Credits

Spring 2nd Year

- AT 20200 - Aerospace Vehicle Systems Design, Analysis And Operations
- AT 21900 - Unmanned Aerial Systems Design, Build, Test
- AT 28600 - National Airspace Systems Operations
- HIST 38400 - History Of Aviation
- Science Foundational Selective - Credit Hours: 3.00

15 Credits

Fall 3rd Year

- AT 30900 - Unmanned Autonomous Aerial Systems
- 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
- ENGL 42100 - Technical Writing
- 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
- COM 25100 - Communication, Information, And Society
- 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.

Critical Course

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

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

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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Airframe and Powerplant Maintenance Minor

Requirements for the Minor (12 credits)

Core Courses (12 credits)

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

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Unmanned Aerial Systems Minor

Requirements for the Minor (15 credits)

- AT 20900 - Civilian Unmanned Aerial Systems
- AT 21900 - Unmanned Aerial Systems Design, Build, Test
- AT 28600 - National Airspace Systems Operations
- AT 30900 - Unmanned Autonomous Aerial Systems
- AT 31900 - Unmanned Aerial Systems Applications, Data And Documentation

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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.

Accredited by the American Council for Construction Education (ACCE)

Construction Management Website

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

Departmental/Program Other Course Requirements (54 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)
- HIST 39400 - Environmental History Of The United States (satisfies Human Cultures Humanities 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 20010 - Business Accounting
- MGMT 45500 - Legal Background For Business I

- PHIL 29000 - Environmental Ethics (satisfies Human Cultures Humanities for core)

- PHYS 21800 - General Physics (satisfies Science for core) or
- PHYS 22000 - General Physics (satisfies Science for core)

- POL 32700 - Global Green Politics (satisfies Human Cultures Behavioral/Social Science selective for core and meets part of Intercultural Requirement)
- TECH 12000 - Design Thinking In Technology (satisfies Information Literacy Selective as well as the Science, Technology and Society Selective for core)

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

- PHIL 41100 - Modern Ethical Theories or
- PHIL 42400 - Recent Ethical Theory

- Business Selective - Credit Hours: 3.00 (see CM list)
- Communication Foundation Selective (satisfies Oral Communication for core) - Credit Hours: 3.00
- English First Year Composition Selective (satisfies Written Communication 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

Electives (5 credits)

Any course, any subject

Additional Degree Requirements

Construction Management Supplemental Information.

Cornerstone Certificate

Requirements will be met upon completion of HIST 39400, PHIL 29000, ENGL 42000 or ENGL 42100, PHIL 41100 or PHIL 42400, and POL 32700

The mission of this liberal-arts-based program is to significantly enhance the educational experience of all students, bridging the College of Liberal Arts and other units across campus; introducing and integrating students to the worlds of engineering, technology, science, medicine, business, public policy, and agriculture; and providing them with the skills and edification of a humanities education.

Concentration Requirement

Students will be required to choose an area of concentration prior to taking CM 30000.

Within the CM 20000 course, 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 prior to CM 30000). Students will receive specialized instruction relating to their concentration within the CM 30000 course. The student's capstone project in CM 40000 and CM 45000 will then focus on the student's area of concentration.

Students are only allowed to select ONE concentration area:

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

University Core Requirements

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

For a complete listing of course selectives, visit the Provost's 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
- English First Year Composition Selective - Credit Hours: 3.00

14 Credits

Spring 1st Year

- CM 15000 - Construction Management Fundamentals ♦
- CM 11000 - Construction OSHA Ten-Hour Certification ♦
- MA 16010 - Applied Calculus I ♦
- Communication Foundation Selective - Credit Hours: 3.00
- Management Selective - Credit Hours: 3.00

16 Credits

Fall 2nd Year

- CM 20000 - Intermediate Pre-Construction Management ♦
- MGMT 20010 - Business Accounting ♦

- PHYS 21800 - General Physics ♦ or
- PHYS 22000 - General Physics

16 Credits

Spring 2nd Year

- CM 25000 - Intermediate Construction Management ♦
- CM 21000 - Construction Management Portfolio I ♦
- PHIL 29000 - Environmental Ethics
- Laboratory Science selective - Credit Hours: 3.00

15.5 Credits

Fall 3rd Year

- CM 30000 - Advanced Pre-Construction Management ♦
- HIST 39400 - Environmental History Of The United States
  Business Selective - 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
- POL 32700 - Global Green Politics

16 Credits

Fall 4th Year

- CM 40000 - Construction Capstone I ♦

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

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

- 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

- PHIL 41100 - Modern Ethical Theories or
- PHIL 42400 - Recent Ethical Theory

- Elective - Credits: 2.00

12.5 Credits

Notes

- "C-" or better is required in all major courses and all courses that are a prerequisite to a CM course.
- 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. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Disclaimer

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Design and Construction Integration-Interior Design Concentration, BS

words

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (47 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 23300 - Mechanical, Electrical, And Piping Materials And Methods
- CM 30000 - Advanced Pre-Construction Management
- CM 39000 - Construction Work Experience I
- 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

Design Courses - Interior Design Concentration (24 credits)

- AD 12500 - Introduction To Interior Design (satisfies Human Culture: Humanities for core)
- AD 23000 - Interior Design I
- AD 25000 - Interior Design II
- AD 28500 - Interior Components And Materials
- AD 39700 - Sustainability In The Built Environment
- LA 25000 - Architectural Design
- Design Elective - Credit Hours: 3.00

Other Departmental/Program Course Requirements (48 credits)

- AD 11300 - Basic Drawing (satisfies Human Culture: Humanities for core)
- AD 13000 - Interior Design Communication
- CGT 16400 - Graphics For Civil Engineering And Construction
- MA 15800 - Precalculus- Functions And Trigonometry (satisfies Quantitative Reasonings for core)
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core):
- MGMT 20010 - Business Accounting
- MGMT 45500 - Legal Background For Business I

- PHYS 21800 - General Physics (satisfies Science for core) or
- PHYS 22000 - General Physics (satisfies Science for core)

- TECH 12000 - Design Thinking In Technology (satisfies Information Literacy and Science, Technology, and Society for core):

- ECON 21000 - Principles Of Economics or
- AGEC 21700 - Economics (satisfies Human Culture: Behavioral/Social Science for core)

- Business Selective - see Approved CM List - Credit Hours: 3.00
- Communication Foundation Selective - see Approved CM List (satisfies Oral Communication for core) - Credit Hours: 3.00
- English First Year Composition Selective - see Approved CM List (satisfies Written Communication for core) - Credit Hours: 3.00
- Foreign Language Selective - See Approved CM List - Credit Hours: 3.00
- Management Selective - See Approved CM List - Credit Hours: 3.00
- Lab Science Selective - see Approved CM List (satisfies second Science for core) - Credit Hours: 3.00
- Intercultural Requirement - Credit Hours: 0.00

Electives (1 credit)

- Credit Hours: 1.00 Any course, any subject

University Core Requirements

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

For a complete listing of course selectives, visit the Provost's Website.

Prerequisite Information:

For current pre-requisites for courses, click here.

Additional Degree Requirements

Click here for Design and Construction Integration Supplemental Information.

Program Requirements

Accredited by the American Council for Construction Education (ACCE)

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 *
- English First Year Composition Selective - Credit Hours: 3.00 *

14 Credits

Spring 1st Year

- CM 15000 - Construction Management Fundamentals ♦
- CM 11000 - Construction OSHA Ten-Hour Certification ♦
- MA 16010 - Applied Calculus I ♦ *
- AD 11300 - Basic Drawing *
- Communication Foundation Selective * - Credit Hours: 3.00

16 Credits

Fall 2nd Year

- CM 20000 - Intermediate Pre-Construction Management ♦
- CM 23300 - Mechanical, Electrical, And Piping Materials And Methods
- AD 12500 - Introduction To Interior Design *

15 Credits

Spring 2nd Year

- LA 25000 - Architectural Design
- AD 13000 - Interior Design Communication
- CM 21000 - Construction Management Portfolio I ♦

- PHYS 21800 - General Physics ♦ or
- PHYS 22000 - General Physics

- MGMT 20010 - Business Accounting ♦
- Foreign Language Selective - Credit Hours: 3.00

15.5 Credits

Fall 3rd Year

- CM 30000 - Advanced Pre-Construction Management ♦
- CM 39000 - Construction Work Experience I ♦
- AD 23000 - Interior Design I

16 Credits

Spring 3rd Year

- AD 28500 - Interior Components And Materials
- AD 25000 - Interior Design II
- Business Selective - Credit Hours: 3.00
- Design Elective - Credit Hours: 3.00
- Management Selective - Credit Hours: 3.00

15 Credits

Fall 4th Year

- AD 39700 - Sustainability In The Built Environment
- CM 40000 - Construction Capstone I ♦
- MGMT 45500 - Legal Background For Business I

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

15 Credits

Spring 4th Year

- CM 45000 - Construction Capstone II
- CM 49000 - Construction Work Experience II
- CM 43300 - Risk Management And Legal Issues In Design And Construction Integration
- CM 41000 - Construction Management Portfolio II
- Lab Science Selective* - Credit Hours: 3.00
- Free Elective - Credit Hours: 1.00

13.5 Credits

Notes

* Satisfies a University Core Requirement.

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

2.0 Graduation GPA required for Bachelor of Science degree.

"C-" or better required in all major courses and all courses that are a prerequisite to a CM course.

Accredited by the American Council for Construction Eduction (ACCE)

Critical Course

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

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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

Notes

- All CM courses require a C- or higher.
- 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

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

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
- CNIT 17600 - Information Technology Architectures
- CNIT 18000 - Introduction To Systems Development (Gateway to CIT)
- CNIT 24200 - System Administration
- CNIT 25501 - Object-Oriented Programming Introduction
- CNIT 27000 - Cybersecurity Fundamentals
- CNIT 27200 - Database Fundamentals
- CNIT 28000 - Systems Analysis And Design Methods
- CNIT 32000 - Policy, Regulation, And Globalization In Information Technology
- CNIT 48000 - Managing Information Technology Projects

- CNIT 37200 - Database Programming or
- CNIT 39200 - Enterprise Data Management

Programming Selective (3 credits)

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

Information Technology Selectives (15 credits)

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

At least nine credits must be CNIT courses.

Other Departmental /Program Course Requirements (66 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)
- TECH 12000 - Design Thinking In Technology (satisfies Information Literacy & Science, Technology, and Society Selectives 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
- Communications Selective - Credit Hours: 3.00
- Economics Selective - Credit Hours: 3.00

- Science Selective - Credit Hours: 3.00
- Lab Science Selective - Credit Hours: 3.00
- Accounting Selective - Credit Hours: 3.00
- Statistics Selective - Credit Hours: 3.00
- Professional Speaking Selective - Credit Hours: 3.00
- Professional Writing Selective - Credit Hours: 3.00
- Interdisciplinary Selective - Credit Hours: 15.00
- General Business Selective - Credit Hours: 3.00
- 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

Elective (3 credits)

Any non-remedial course - Credit Hours: 3.00

Additional Degree Requirements

Click here for Computer and Information Technology Supplemental Information.

University Core Requirements

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

For a complete listing of course selectives, visit the Provost's 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
- TECH 12000 - Design Thinking In Technology
- TLI 11200 - Foundations Of Organizational Leadership
  Composition Selective[1] - Credit Hours: 3.00

15 Credits

Spring 1st Year

- CNIT 15501 - Introduction To Software Development Concepts ♦
- CNIT 17600 - Information Technology Architectures ♦ *
- MA 16020 - Applied Calculus II *
- Oral Communications Selective[2] - Credit Hours: 3.00
- Business Selective[9] - Credit Hours: 3.00

15 Credits

Fall 2nd Year

- CNIT 27200 - Database Fundamentals ♦
- CNIT 28000 - Systems Analysis And Design Methods ♦
- Communications Selective[5] - Credit Hours: 3.00
- Economics Selective[4] - Credit Hours: 3.00
- Science Selective[13] - Credit Hours: 3.00 *

15 Credits

Spring 2nd Year

- CNIT 24200 - System Administration
- CNIT 25501 - Object-Oriented Programming Introduction ♦
- CNIT 27000 - Cybersecurity Fundamentals
- Statistics Selective[7] - Credit Hours: 3.00
- Lab Science Selective[14] - Credit Hours: 3.00 * (must take at least 3 credits of Science Selective with a Lab Component)

15 Credits

Fall 3rd Year

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

  Information Technology Selective [12] - Credit Hours: 3.00
  Accounting Selective[3] - Credit Hours: 3.00

Professional Speaking Selective [6] - Credit Hours: 3.00
Interdisciplinary Selective [15] - 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

- Information Technology Selective [12] - Credit Hours: 3.00
- Professional Writing Selective [8] - Credit Hours: 3.00
- Interdisciplinary Selective [15] - Credit Hours: 3.00

15 Credits

Fall 4th Year

- CNIT 48000 - Managing Information Technology Projects
- Interdisciplinary Selective [15] - Credit Hours: 3.00
- Information Technology Selective [12] - Credit Hours: 3.00
- Information Technology Selective [12] - Credit Hours: 3.00
- Humanities Foundational Selective [10] - Credit Hours: 3.00 *

15 Credits

Spring 4th Year

- Elective[16] - Credit Hours: 3.00
- Information Technology Selective [12] - Credit Hours: 3.00
- Interdisciplinary Selective[15] - Credit Hours: 3.00
- Interdisciplinary Selective[15] - Credit Hours: 3.00
- Behavioral/Social Sciences Foundational Selective[11] - Credit Hours: 3.00

15 Credits

Notes

*Fulfills University Core

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)

Co-Curricular Requirements include the following:

- Professional IT Experience
- Globalization requirement

Critical Course

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

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

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 (66 credits)

Computer and Information Technology Required Major Courses (60 credits)

- CNIT 15501 - Introduction To Software Development Concepts
- CNIT 17600 - Information Technology Architectures
- CNIT 18000 - Introduction To Systems Development (Gateway to CIT)
- CNIT 24200 - System Administration
- CNIT 25501 - Object-Oriented Programming Introduction
- CNIT 27000 - Cybersecurity Fundamentals
- CNIT 27200 - Database Fundamentals
- CNIT 28000 - Systems Analysis And Design Methods
- CNIT 31500 - Systems Programming
- CNIT 32000 - Policy, Regulation, And Globalization In Information Technology
- CNIT 32200 - Research Methodology And Design
- CNIT 34010 - UNIX Fundamentals
- CNIT 34220 - Network Administration
- CNIT 34400 - Network Engineering Fundamentals
- CNIT 37000 - Introduction To Cryptography
- CNIT 42000 - Basic Cyber Forensics
- CNIT 42200 - Cyber Criminology
- CNIT 45500 - Network Security
- CNIT 47000 - Incident Response Management
- CNIT 47100 - Vulnerability Analysis And Testing
- CNIT 48000 - Managing Information Technology Projects

Cybersecurity Selectives (6 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 - Cyber Conflict & Transnational Crime or
    - Cyber Conflict & Transnational Crime
    - Malware Forensics
    - Social Engineering Info Tech
    - Large Event Mgmt & Plan HLS

Other Departmental /Program Course Requirements (54 credits)

- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning Selective for core)
- MA 16020 - Applied Calculus II (satisfies Quantitative Reasoning Selective 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 & Science, Technology, and Society Selectives for core)

- TLI 11200 - Foundations Of Organizational Leadership
- Communications Selective - Credit Hours: 3.00
- Economics Selective - Credit Hours: 3.00
- Science Selective - Credit Hours: 3.00
- Lab Science Selective - Credit Hours: 3.00
- Accounting Selective - Credit Hours: 3.00
- Statistics Selective - Credit Hours: 3.00
- Professional Speaking Selective - Credit Hours: 3.00
- Professional Writing 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 Core Requirements

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

For a complete listing of course selectives, visit the Provost's 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 *

- TECH 12000 - Design Thinking In Technology *
- Composition Selective[1] - Credit Hours: 3.00

15 Credits

Spring 1st Year

- CNIT 15501 - Introduction To Software Development Concepts ♦
- CNIT 17600 - Information Technology Architectures ♦
- MA 16020 - Applied Calculus II
- Oral Communications Selective[2] - Credit Hours: 3.00
- Accounting Selective[3] - Credit Hours: 3.00

15 Credits

Fall 2nd Year

- CNIT 24200 - System Administration ♦
- CNIT 27000 - Cybersecurity Fundamentals ♦
- CNIT 25501 - Object-Oriented Programming Introduction
- Economics Selective[4] - Credit Hours: 3.00
- Science Selective*[13] - Credit Hours: 3.00

15 Credits

Spring 2nd Year

- CNIT 27200 - Database Fundamentals
- CNIT 28000 - Systems Analysis And Design Methods
- Humanities Foundational Selective*[10] - Credit Hours: 3.00
- Statistics Selective[7] - Credit Hours: 3.00
- Lab Science Selective*[14] - Credit Hours: 3.00

15 Credits

Fall 3rd Year

- CNIT 32000 - Policy, Regulation, And Globalization In Information Technology
- CNIT 32200 - Research Methodology And Design
- CNIT 34010 - UNIX Fundamentals ♦
- CNIT 37000 - Introduction To Cryptography ♦
- Professional Speaking Selective[6] - Credit Hours: 3.00
- Interdisciplinary Selective[15] - Credit Hours: 3.00

16 Credits

Spring 3rd Year

- CNIT 31500 - Systems Programming
- CNIT 34220 - Network Administration ♦
- CNIT 34400 - Network Engineering Fundamentals ♦
- Professional Writing Selective[8] - Credit Hours: 3.00
- Interdisciplinary Selective[15] - Credit Hours: 3.00

14 Credits

Fall 4th Year

- CNIT 45500 - Network Security ♦
- CNIT 47000 - Incident Response Management ♦
- Cybersecurity Selective[16] - Credit Hours: 3.00
- Cybersecurity Selective[16] - Credit Hours: 3.00
- Communications Selective[5] - Credit Hours: 3.00

15 Credits

Spring 4th Year

- CNIT 42000 - Basic Cyber Forensics
- CNIT 42200 - Cyber Criminology
- CNIT 47100 - Vulnerability Analysis And Testing
- CNIT 48000 - Managing Information Technology Projects ♦
- Behavioral/Social Sciences Foundational Selective*[11] - Credit Hours: 3.00

15 Credits

Notes

*Fulfills University Core

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)

Co-Curricular Requirements include the following:

- Professional IT Experience

- Globalization requirement

Critical Course

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

Disclaimer

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

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Network Engineering Technology, BS

About the Program

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

Network Engineering Technology Website

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
- CNIT 17600 - Information Technology Architectures
- CNIT 18000 - Introduction To Systems Development (Gateway to CIT)
- CNIT 24000 - Data Communications And Networking
- CNIT 24200 - System Administration
- CNIT 25501 - Object-Oriented Programming Introduction
- CNIT 27000 - Cybersecurity Fundamentals
- CNIT 27200 - Database Fundamentals
- CNIT 28000 - Systems Analysis And Design Methods
- CNIT 31500 - Systems Programming
- CNIT 32000 - Policy, Regulation, And Globalization In Information Technology
- CNIT 34000 - UNIX Administration
- CNIT 34210 - Storage Area Networking
- CNIT 34220 - Network Administration

- CNIT 34500 - Internetwork Design And Implementation
- 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 other 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 (60 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)
- TECH 12000 - Design Thinking In Technology (satisfies Information Literacy & Science, Technology, and Society Selectives 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
- Communications Selective - Credit Hours: 3.00
- Economics Selective - Credit Hours: 3.00
- Physics Selective (satisfies Science for core) - Credit Hours: 4.00
- Physics Selective (satisfies Science for core) - Credit Hours: 4.00
- Accounting Selective - Credit Hours: 3.00
- Statistics Selective - Credit Hours: 3.00
- Professional Speaking Selective - Credit Hours: 3.00
- Professional Writing Selective - Credit Hours: 3.00
- Interdisciplinary Selective - Credit Hours: 7.00
- General Business Selective - Credit Hours: 3.00
- 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 Network Engineering Technology Supplemental Information.

University Core Requirements

- Human Cultures Humanities

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

For a complete listing of course selectives, visit the Provost's 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
- TECH 12000 - Design Thinking In Technology
- TLI 11200 - Foundations Of Organizational Leadership
- Composition Selective[1]- Credit Hours: 3.00

15 Credits

Spring 1st Year

- CNIT 15501 - Introduction To Software Development Concepts ♦
- CNIT 17600 - Information Technology Architectures ♦
- MA 16020 - Applied Calculus II
- Oral Communications Selective[2] - Credit Hours: 3.00
- Business Selective[9] - Credit Hours: 3.00

15 Credits

Fall 2nd Year

- CNIT 24000 - Data Communications And Networking ♦
- CNIT 27200 - Database Fundamentals
- CNIT 28000 - Systems Analysis And Design Methods
- Accounting Selective[3] - Credit Hours: 3.00

- PHYS 21800 - General Physics or

- PHYS 22000 - General Physics

16 Credits

Spring 2nd Year

- CNIT 24200 - System Administration ♦
- CNIT 25501 - Object-Oriented Programming Introduction ♦
- CNIT 27000 - Cybersecurity Fundamentals
- Statistics Selective[7] - Credit Hours: 3.00

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

16 Credits

Fall 3rd Year

- CNIT 34000 - UNIX Administration ♦
- CNIT 34500 - Internetwork Design And Implementation ♦
- Interdisciplinary Selective[15] - Credit Hours: 3.00
- Professional Speaking Selective[6] - Credit Hours: 3.00
- Economics Selective[4] - Credit Hours: 3.00

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 ♦
- Professional Writing Selective[8] - Credit Hours: 3.00

14 Credits

Fall 4th Year

- CNIT 45500 - Network Security ♦
- CNIT 48000 - Managing Information Technology Projects
- Interdisciplinary Selective[15] - Credit Hours: 2.00
- Communications Selective[5] - Credit Hours: 3.00
- Humanities Foundational Selective[10] - Credit Hours: 3.00

14 Credits

Spring 4th Year

- CNIT 31500 - Systems Programming
- Information Technology Selective[12] - Credit Hours: 3.00
- Information Technology Selective[12] - Credit Hours: 3.00
- Interdisciplinary Selective[15] - Credit Hours: 2.00
- Behavioral/Social Sciences Foundational Selective[11] - Credit Hours: 3.00

14 Credits

Notes

- Students must earn a C- or better in all CNIT courses that are a prerequisite to another CNIT course
- 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)

- Co-Curricular Requirements include the following:
  - Professional IT Experience
  - Globalization requirement

Critical Course

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

Disclaimer

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Systems Analysis and Design, BS

About the Program

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

Systems Analysis and Design Website

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
- CNIT 17600 - Information Technology Architectures
- CNIT 18000 - Introduction To Systems Development (Gateway to CIT)
- CNIT 24200 - System Administration
- CNIT 25501 - Object-Oriented Programming Introduction
- CNIT 27000 - Cybersecurity Fundamentals
- CNIT 27200 - Database Fundamentals
- CNIT 28000 - Systems Analysis And Design Methods
- 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 other 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)

- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity (satifies Written Communication for core)
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World (satisfies Oral Communication for core)
- PHIL 15000 - Principles Of Logic
- TECH 12000 - Design Thinking In Technology (satisfies Information Literacy Selective & Science, Technology, and Society Selectives 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
- Communications Selective - Credit Hours: 3.00
- Economics Selective - Credit Hours: 3.00
- Science Selective (satisfies Science for core) - Credit Hours: 3.00
- Lab Science Selective (satisfies Science for core) - Credit Hours: 3.00
- Accounting Selective - Credit Hours: 3.00
- Statistics Selective - Credit Hours: 3.00
- Professional Speaking Selective - Credit Hours: 3.00
- Professional Writing Selective - Credit Hours: 3.00
- Interdisciplinary Selective - Credit Hours: 15.00
- General Business Selective - Credit Hours: 3.00
- 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 Systems Analysis and Design Supplemental Information.

University Core Requirements

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

For a complete listing of course selectives, visit the Provost's 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 *
- TECH 12000 - Design Thinking In Technology *
- TLI 11200 - Foundations Of Organizational Leadership
- Composition Selective[1]

15 Credits

Spring 1st Year

- CNIT 15501 - Introduction To Software Development Concepts ♦
- CNIT 17600 - Information Technology Architectures ♦ *
- MA 16020 - Applied Calculus II
- Oral Communications Selective[2]
- Business Selective [9]

15 Credits

Fall 2nd Year

- CNIT 24200 - System Administration
- CNIT 25501 - Object-Oriented Programming Introduction ♦
- CNIT 27000 - Cybersecurity Fundamentals
- PHIL 15000 - Principles Of Logic
- Science Selective [13] - Credit Hours: 3.00 *

15 Credits

Spring 2nd Year

- CNIT 27200 - Database Fundamentals ♦
- CNIT 28000 - Systems Analysis And Design Methods ♦
- Statistics Selective [7] - Credit Hours: 3.00
- Communications Selective [5] - Credit Hours: 3.00
- Lab Science Selective [14] - 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 ♦
- Professional Speaking Selective [6] - Credit Hours: 3.00
- Accounting Selective [3] - Credit Hours: 3.00

15 Credits

Spring 3rd Year

- CGT 25600 - Principles Of User Experience Design
- CNIT 39200 - Enterprise Data Management SAAD Selective [16] - Credit Hours: 3.00
- Professional Writing Selective [8] - Credit Hours: 3.00
- Interdisciplinary Selective [15] - Credit Hours: 3.00

15 Credits

Fall 4th Year

- Interdisciplinary Selective [15] - Credit Hours: 3.00
- Interdisciplinary Selective [15] - Credit Hours: 3.00
- SAAD Selective [16] - Credit Hours: 3.00
- Economics Selective [4] - Credit Hours: 3.00
- Humanities Foundational Selective [10]- Credit Hours: 3.00 *

15 Credits

Spring 4th Year

- CNIT 48000 - Managing Information Technology Projects
- Information Technology Selective [12] - Credit Hours: 3.00
- Interdisciplinary Selective [15] - Credit Hours: 3.00
- Interdisciplinary Selective [15] - Credit Hours: 3.00
- Behavioral/Social Sciences Foundational Selective [11] - Credit Hours: 3.00 *

15 Credits

Notes

*Fulfills University Core

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

Co-Curricular Requirements include the following:

1. Professional IT Experience
2. Globalization requirement

Critical Course

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

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Minor

Computer and Information Technology Minor

Requirements for the Minor (15 credits)

Required Courses (15 credits)

CNIT Selectives are any course that will fulfill a CIT Major required course (Click here for Computer and Information Technology, BS)

- 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

- 2.0 GPA in all minor courses
- No course may be taken pass/fail
- Transfer credit, course substitutions, and credit by exam limited to three (3) 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 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.

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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

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (41 credits)

Required Major Courses (29 credits)

- CGT 10101 - Foundations Of Computer Graphics Technology
- CGT 11600 - Geometric Modeling For Visualization And Communication
- CGT 11800 - Fundamentals Of Imaging Technology
- CGT 14100 - Internet Foundations Technologies And Development
- CGT 21500 - Computer Graphics Programming I
- CGT 24100 - Introduction to Computer Animation
- CGT 25001 - Computer Graphics Professional Practices I
- CGT 34000 - Digital Lighting And Rendering for Computer Animation
- CGT 34100 - Motion for Computer Animation
- 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

Major Selectives* - Select 4 (12 credits)

- CGT 44200 - Production for Computer Animation or
- CGT 44600 - Post-Production And Special Effects For Computer Animation
- CGT Selective - Credit Hours: 3.00
- CGT Selective - Credit Hours: 3.00
- CGT Selective - 30000 Level or higher - Credit Hours: 3.00

Other Departmental/Program Course Requirements (64 credits)

- 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 *(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 21800 - General Physics *(satisfies Science Selective for core) or*
- PHYS 22000 - General Physics (satisfies Science Selective for core)

- PSY 12000 - Elementary Psychology *(satisfies Human Culture Behavioral/Social Science for core)*
- TECH 12000 - Design Thinking In Technology *(satisfies Information Literacy AND Science, Technology & Society Selective for core)*
- Human Cultures (satisfies Humanities for Core & a Cornerstone Selective) - Credit Hours: 3.00
- Humanities Elective (possible Cornerstone Selective) - Credit Hours: 6.00
- Science Selective (satisfies Science Selective for core) - Credit Hours: 3.00
- Advanced English Selective (possible Cornerstone Selective) - Credit Hours: 3.00
- Statistics Selective - 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 (15 Credits)

Any Course, any subject. Credit Hours: 15.00

University Core Requirements

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

For a complete listing of course selectives, visit the Provost's Website.

Prerequisite Information:

For current pre-requisites for courses, click here.

Additional Degree Requirements

Click here for Animation Supplemental Course Information.

Cornerstone Certificate Required. Click here for Cornerstone Certificate.

Program Requirements

Fall 1st Year

- CGT 10101 - Foundations Of Computer Graphics Technology
- CGT 11800 - Fundamentals Of Imaging Technology
- TECH 12000 - Design Thinking In Technology *
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity *
- MA 15800 - Precalculus- Functions And Trigonometry *

14 Credits

Spring 1st Year

- CGT 11600 - Geometric Modeling For Visualization And Communication
- CGT 14100 - Internet Foundations Technologies And Development
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World *

- PHYS 21800 - General Physics *or
- PHYS 22000 - General Physics *

- MA 16010 - Applied Calculus I *

16 Credits

Fall 2nd Year

- CGT 21500 - Computer Graphics Programming I
- PSY 12000 - Elementary Psychology *
- Human Cultures: Humanities Core* - Credit Hours: 3.00
- Elective - Credit Hours: 3.00
- Technical Elective - Credit Hours: 3.00

15 Credits

Spring 2nd Year

- CGT 24100 - Introduction to Computer Animation
- CGT 25001 - Computer Graphics Professional Practices I
- ECON 21000 - Principles Of Economics
- CGT Selective - Credit Hours: 3.00
- Science Foundational Selective Core* - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

16 Credits

Fall 3rd Year

- CGT 34000 - Digital Lighting And Rendering for Computer Animation
- CGT Selective - Credit Hours: 3.00
- Humanities Elective - Credit Hours: 3.00
- Advanced English Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Spring 3rd Year

- CGT 34100 - Motion for Computer Animation
- CGT Selective - Credit Hours: 3.00
- CGT Globalization Selective - Credit Hours: 3.00
- Statistics Selective - Credit Hours: 3.00
- Management Selective - Credit Hours: 3.00

15 Credits

Fall 4th Year

- CGT 41101 - Contemporary Problems In Applied Computer Graphics I
- MGMT 45500 - Legal Background For Business I
- CGT Selective (40000 Level) (CGT44200 or CGT44600) - Credit Hours: 3.00
- Humanities Elective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00
- Technical Elective - Credit Hours: 3.00

17 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 - Credit Hours: 3.00
- Technical Elective - Credit Hours: 3.00

12 Credits

Notes

*Satisfies a University Core Requirement

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

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

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

Combining graphics expertise with broad construction knowledge, building information modeling (BIM) is helping to revolutionize the architecture, engineering and construction (AEC) industry through its transformative and collaborative approach. When you major in building information modeling at Purdue University, you'll gain skills that will help a construction team create detailed designs and documentation. The 3D computer model is at the heart of BIM. Once you have created a model, you can view the structure from inside specific rooms, from any angles, and even with different materials such as brick or siding. You will learn about a wide range of topics necessary in the field, such as carpentry, steel, and plumbing and electrical trades.

Building Information Modeling Website

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (41 credits)

Required Major Courses (32 credits)

- CGT 10101 - Foundations Of Computer Graphics Technology
- CGT 11600 - Geometric Modeling For Visualization And Communication

- CGT 11800 - Fundamentals Of Imaging Technology
- CGT 14100 - Internet Foundations Technologies And Development
- CGT 21500 - Computer Graphics Programming I
- CGT 25001 - Computer Graphics Professional Practices I
- CGT 26200 - Introduction To Construction Graphics
- 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 (64 credits)

- 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 *(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 21800 - General Physics *(satisfies Science for core) or*
- PHYS 22000 - General Physics

- PSY 12000 - Elementary Psychology *(satisfies Human Culture Behavioral/Social Science for core)*
- TECH 12000 - Design Thinking In Technology *(satisfies Information Literacy AND Science, Technology & Society Selective for core)*
- Human Cultures Selective (*satisfies Humanities for Core* & a Cornerstone Selective) - Credit Hours: 3.00
- Humanities Elective (possible Cornerstone Selective) - Credit Hours: 6.00
- Science Selective (*satisfies Science Selective for core*) - Credit Hours: 3.00
- Advanced English Selective (possible Cornerstone Selective) - Credit Hours: 3.00
- Statistics Selective - 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 (15 credits)

Any course, any subject. Credit Hours: 15.00

Additional Degree Requirements

Click here for Building Information Modeling Supplemental Course Information.

Cornerstone Certificate required. Click here for Cornerstone Certificate.

University Core Requirements

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

For a complete listing of course selectives, visit the Provost's Website.

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- CGT 10101 - Foundations Of Computer Graphics Technology
- CGT 11800 - Fundamentals Of Imaging Technology
- TECH 12000 - Design Thinking In Technology *
- MA 15800 - Precalculus- Functions And Trigonometry *
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity *

14 Credits

Spring 1st Year

- CGT 11600 - Geometric Modeling For Visualization And Communication
- CGT 14100 - Internet Foundations Technologies And Development
- MA 16010 - Applied Calculus I *

- PHYS 21800 - General Physics * or
- PHYS 22000 - General Physics *

- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World *

16 Credits

Fall 2nd Year

- CGT 21500 - Computer Graphics Programming I
- CGT 26200 - Introduction To Construction Graphics
- PSY 12000 - Elementary Psychology *
- Elective - Credit Hours: 3.00
- Technical Elective - Credit Hours: 3.00

15 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 Core - Credit Hours: 3.00 *
- Science Foundational Selective Core - Credit Hours: 3.00 *
- Elective - Credit Hours: 3.00

16 Credits

Fall 3rd Year

- CGT 46200 - Applications Of Construction Documentation II
- CGT Selective - Credit Hours: 3.00
- Humanities Elective - Credit Hours: 3.00
- Advanced English Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Spring 3rd Year

- CGT 46000 - Building Information Modeling For Commercial Construction
- CGT Selective - Credit Hours: 3.00
- CGT Globalization Selective - Credit Hours: 3.00
- Statistics Selective - Credit Hours: 3.00
- Management Selective - Credit Hours: 3.00

15 Credits

Fall 4th Year

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

17 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 - Credit Hours: 3.00
- Technical Elective - Credit Hours: 3.00

12 Credits

Notes

*Satisfies a University Core Requirement

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

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

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

Data visualization specialists present complex information in an easy-to-understand format. Their efforts can help identify trends, provide important insights and illustrate impact. 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 as 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: https://polytechnic.purdue.edu/degrees/data-visualization

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (41 credits)

Required Major Courses (35 credits)

- CGT 10101 - Foundations Of Computer Graphics Technology
- CGT 11600 - Geometric Modeling For Visualization And Communication
- CGT 11800 - Fundamentals Of Imaging Technology
- CGT 14100 - Internet Foundations Technologies And Development
- CGT 21500 - Computer Graphics Programming I
- CGT 25001 - Computer Graphics Professional Practices I

- CGT 25600 - Principles Of User Experience Design
- CGT 27000 - Introduction To Data Visualization
- 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 - 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 21800 - General Physics *(satisfies Science for core) or*
- PHYS 22000 - General Physics (satisfies Science for core) or

- PSY 12000 - Elementary Psychology
  (*satisfies human Culture Behavioral/Social 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 *(satisfies Human Culture Behavioral/Social Science for core)*
- TECH 12000 - Design Thinking In Technology *(satisfies Information Literacy AND Science, Technology & Society for core)*
- Human Cultures Selective (satisfies Humanities for Core & a Cornerstone Selective) - Credit Hours: 3.00
- Humanities Elective (possible Cornerstone Selective)- Credit Hours: 3.00
- Science Selective - Credit Hours: 3.00
- CGT Global Selective (possible Cornerstone Selective) - Credit Hours: 3.00
- Advanced English 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 (15 credits)

Any course, any subject. Credit Hours: 15.00

University Core Requirements

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

For a complete listing of course selectives, visit the Provost's Website.

Prerequisite Information:

For current pre-requisites for courses, click here.

Additional Degree Requirements

Click here for Data Visualization Supplemental Course Information.

Cornerstone Certificate requirements. Click here for Cornerstone Certificate.

Program Requirements

Fall 1st Year

- CGT 10101 - Foundations Of Computer Graphics Technology
- CGT 11800 - Fundamentals Of Imaging Technology
- TECH 12000 - Design Thinking In Technology *
- MA 15800 - Precalculus- Functions And Trigonometry *
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity *

14 Credits

Spring 1st Year

- CGT 11600 - Geometric Modeling For Visualization And Communication
- CGT 14100 - Internet Foundations Technologies And Development
- MA 16010 - Applied Calculus I *
- PSY 12000 - Elementary Psychology *
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World *

15 Credits

Fall 2nd Year

- AD 10500 - Design I
- CGT 21500 - Computer Graphics Programming I

- PHYS 22000 - General Physics or
- PHYS 21800 - General Physics *
- Human Cultures: Humanities Core* - Credit Hours: 3.00
- Technical Elective - Credit Hours: 3.00

16 Credits

Spring 2nd Year

- CGT 25600 - Principles Of User Experience Design
- CGT 27000 - Introduction To Data Visualization
- CGT 25001 - Computer Graphics Professional Practices I
- ECON 21000 - Principles Of Economics
- Science Foundational Selective Core* - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

16 Credits

Fall 3rd Year

- CGT 37700 - Scientific Visualization
- STAT 30100 - Elementary Statistical Methods
- CGT Selective - Credit Hours: 3.00
- Advanced English Selective - Credit Hours: 3.00
- Elective - 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
- 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
- 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
- Elective - Credit Hours: 3.00

15 Credits

Notes

* Satisfies University Core

Students must earn C- or better in CGT Courses

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

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. See examples at www.gamesinnovation.org.

Game Studies Website

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (41 credits)

- CGT 10101 - Foundations Of Computer Graphics Technology
- CGT 11600 - Geometric Modeling For Visualization And Communication
- CGT 11800 - Fundamentals Of Imaging Technology
- CGT 14100 - Internet Foundations Technologies And Development
- CGT 20500 - Portfolio Review
- CGT 21500 - Computer Graphics Programming I
- CGT 24100 - Introduction to Computer Animation
- 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 25600 - Principles Of User Experience Design
- CGT 34000 - Digital Lighting And Rendering for Computer Animation
- CGT 34500 - Game Development III: Environment Modeling For Games
- CGT 40500 - Senior Portfolio Review
- CGT 41101 - Contemporary Problems In Applied Computer Graphics I
- CGT 41201 - Contemporary Problems In Applied Computer Graphics II
- CGT 44500 - Game Development IV: Procedural Asset Creation For Games
- 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 (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 21800 - General Physics *(satisfies Science Selective for core)* or
- PHYS 22000 - General Physics *(satisfies Science Selective for core)*

- PSY 12000 - Elementary Psychology *(satisfies Human Culture Behavioral/Social 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)*
- TECH 12000 - Design Thinking In Technology *(satisfies Information Literacy AND Science, Technology & Society Selective for core)*
- Human Cultures *(satisfies Humanities for Core & a Cornerstone Selective)* - Credit Hours: 3.00
- Humanities Elective *(possible Cornerstone Selective)* - Credit Hours: 6.00
- Science Selective *(satisfies Science Selective for core)* - Credit Hours: 3.00
- Advanced English Selective *(possible Cornerstone Selective)* - Credit Hours: 3.00
- Statistics Selective - 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 (15 credits)

- Any course, any subject - Credit Hours: 15.00

Additional Degree Requirements

- Game Development and Design Supplemental Course Information.
- Cornerstone Certificate.

University Core Requirements

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

For a complete listing of course selectives, visit the Provost's Website.

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- CGT 10101 - Foundations Of Computer Graphics Technology
- CGT 11800 - Fundamentals Of Imaging Technology
- TECH 12000 - Design Thinking In Technology
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity
- MA 15800 - Precalculus- Functions And Trigonometry

14 Credits

Spring 1st Year

- CGT 11600 - Geometric Modeling For Visualization And Communication
- CGT 14100 - Internet Foundations Technologies And Development
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World
- MA 16010 - Applied Calculus I

- PHYS 21800 - General Physics or
- PHYS 22000 - General Physics

16 Credits

Fall 2nd Year

- CGT 21500 - Computer Graphics Programming I
- CGT 24500 - Game Development I: Core Skills And Technologies
- PSY 12000 - Elementary Psychology
- Human Culture: Humanities Core - Credit Hours: 3.00
- Technical Elective - Credit Hours: 3.00

15 Credits

Spring 2nd Year

- CGT 20500 - Portfolio Review
- CGT 24100 - Introduction to Computer Animation
- CGT 25500 - Game Development II: Design And Psychology
- CGT 25001 - Computer Graphics Professional Practices I
- ECON 21000 - Principles Of Economics
- Science Selective - Credit Hours: 3.00

- Elective - Credit Hours: 3.00

16 Credits

Fall 3rd Year

- CGT 34000 - Digital Lighting And Rendering for Computer Animation
- CGT 34500 - Game Development III: Environment Modeling For Games
- Humanities Elective - Credit Hours: 3.00
- Advanced English Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Spring 3rd Year

- CGT 40500 - Senior Portfolio Review
- CGT 44500 - Game Development IV: Procedural Asset Creation For Games
- CGT 25600 - Principles Of User Experience Design
- CGT Globalization Selective - Credit Hours: 3.00
- Statistics Selective - Credit Hours: 3.00
- Management Selective - Credit Hours: 3.00

15 Credits

Fall 4th Year

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

17 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 - Credit Hours: 3.00
- Technical Elective - Credit Hours: 3.00

12 Credits

Notes

- Students must earn a "C-" or better in all CGT courses.
- 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. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

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

Human-centered 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 we create great user experiences (UX). A human-centered approach to design and development helps lead to positive user experiences, by ensuring that our artifacts are easy to learn and use, are fun and enjoyable, and help users to achieve their goals.

Human Centered Design and Development Website

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (41 credits)

- CGT 10101 - Foundations Of Computer Graphics Technology
- CGT 11800 - Fundamentals Of Imaging Technology
- CGT 17207 - User Experience Design Experience Studio I
- CGT 17208 - User Experience Design Studio I: Fundamentals
- CGT 25001 - Computer Graphics Professional Practices I
- CGT 27108 - User Experience Design Studio II: Screen
- CGT 27207 - User Experience Design Experience Studio II
- 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
- 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)

- PSY 12000 - Elementary Psychology (*satisfies Human Culture 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*)
- TECH 12000 - Design Thinking In Technology (*satisfies Information Literacy AND Science, Technology & Society Selective for c*ore)
- Science Selectives (*satisfies Science for core*) - Credit Hours: 6.00
- CGT Global Selectives - Credit Hours: 9.00
- CGT Leadership - Credit Hours: 9.00
- Psychology Selectives - Credit Hours: 9.00
- Humanities Electives - 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 (10 credits)

Any course, any subject. Credit Hours: 10.00

University Core Requirements

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

For a complete listing of course selectives, visit the Provost's 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 10101 - Foundations Of Computer Graphics Technology
- CGT 11800 - Fundamentals Of Imaging Technology
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity *
- TECH 12000 - Design Thinking In Technology *
- Math Selective - Credit Hours: 3.00 *

14 Credits

Spring 1st Year

- CGT 17207 - User Experience Design Experience Studio I
- CGT 17208 - User Experience Design Studio I: Fundamentals
- PSY 12000 - Elementary Psychology *
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World *
- Technical Elective - 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 Foundational Selective Core - Credit Hours: 3.00 *
- Human Cultures: Humanities Core - Credit Hours: 3.00 *
- Psychology 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 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 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 Foundational Selective Core - Credit Hours: 3.00*
- Elective - Credit Hours: 4.00

15 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
- Elective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Notes

*Satisfies a University Core Requirement

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

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

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 product manufacturing is increasingly supported by data-driven design, 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, and how they are serviced and supported. 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

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (53 credits)

Required Major Courses (53 credits)

- CGT 10101 - Foundations Of Computer Graphics Technology
- CGT 10301 - Geometric Modeling Applications
- CGT 11301 - Product Data Management
- CGT 11800 - Fundamentals Of Imaging Technology
- CGT 14100 - Internet Foundations Technologies And Development
- 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 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 (55 credits)

- ECON 21000 - Principles Of Economics *(satisfies Human Cultures 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)*

- PHYS 21800 - General Physics *(satisfies Science Selective for core)* or
- PHYS 22000 - General Physics *(satisfies Science Selective for core)*

- PSY 12000 - Elementary Psychology *(satisfies Human Culture Behavioral/Social 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*)*
- TECH 12000 - Design Thinking In Technology *(satisfies Information Literacy AND Science, Technology & Society Selective for core)*
- Human Cultures Selective (satisfies Humanities for Core & a Cornerstone Selective) - Credit Hours: 3.00*
- Science Selective for Core - Credit Hours: 3.00*
- Humanities Elective (possible Cornerstone Selective) - Credit Hours: 6.00
- Technical Elective - Credit Hours: 3.00
- Advanced English Selective (possible Cornerstone Selective) - Credit Hours: 3.00
- Statistics Selective - Credit Hours: 3.00
- 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 (12 credits)

Any course, any subject. Credit Hours: 12.00

Additional Requirements

Click here for Virtual Product Integration Supplemental Course Information.

Cornerstone Certificate required. Click here for Cornerstone Certificate.

University Core Requirements

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

For a complete listing of course selectives, visit the Provost's Website.

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- CGT 10101 - Foundations Of Computer Graphics Technology
- CGT 11800 - Fundamentals Of Imaging Technology
- TECH 12000 - Design Thinking In Technology
- MA 15800 - Precalculus- Functions And Trigonometry
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity

14 Credits

Spring 1st Year

- CGT 10301 - Geometric Modeling Applications
- CGT 14100 - Internet Foundations Technologies And Development

- PHYS 21800 - General Physics or
- PHYS 22000 - General Physics

- MA 16010 - Applied Calculus I
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World

16 Credits

Fall 2nd Year

- CGT 21500 - Computer Graphics Programming I
- CGT 11301 - Product Data Management
- PSY 12000 - Elementary Psychology
- Human Culture: HumanitiesCredit Hours: 3.00
- Technical Elective - Credit Hours: 3.00

15 Credits

Spring 2nd Year

- CGT 20301 - Model-Based Definition
- CGT 25001 - Computer Graphics Professional Practices I
- ECON 21000 - Principles Of Economics
- Science Foundational Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

16 Credits

Fall 3rd Year

- CGT 21301 - Simulation And Visualization Applications
- CGT 35600 - Web Programming, Development And Data Integration
- Humanities Elective - Credit Hours: 3.00
- Advanced English Selective - Credit Hours: 3.00

15 Credits

Spring 3rd Year

- CGT 30301 - Digital Manufacturing
- CGT 45600 - Advanced Web Programming, Development And Data Integration
- Statistics Selective - Credit Hours: 3.00
- Management Selective - Credit Hours: 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
- Humanities Elective - Credit Hours: 3.00
- Elective - Credit Hours: 6.00

17 Credits

Spring 4th Year

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

12 Credits

Notes

- Students must earn a "C-" or better in all CGT courses.
- 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. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

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

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (41 credits)

- CGT 10101 - Foundations Of Computer Graphics Technology
- CGT 11600 - Geometric Modeling For Visualization And Communication
- CGT 11800 - Fundamentals Of Imaging Technology
- CGT 14100 - Internet Foundations Technologies And Development
- CGT 14700 - Visual Effects Introduction
- CGT 21500 - Computer Graphics Programming I
- CGT 24100 - Introduction to Computer Animation
- CGT 24600 - Compositing I
- CGT 24700 - Visual Effects - Particles And Procedural Effects
- CGT 25001 - Computer Graphics Professional Practices I
- CGT 34000 - Digital Lighting And Rendering for Computer Animation
- CGT 34800 - Photorealistic Shaders
- CGT 34600 - Digital Video And Audio
- 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 (64 credits)

- ECON 21000 - Principles Of Economics
- MA 15800 - Precalculus- Functions And Trigonometry (satisfies Quantitative Reasoning Selective for Core)
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning Selective for core)
- MGMT 45500 - Legal Background For Business I

- PHYS 21800 - General Physics (satisfies Science Selective for core) or
- PHYS 22000 - General Physics (satisfies Science Selective for core)

- PSY 12000 - Elementary Psychology (satisfies Human Culture Behavioral/Social 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)
- TECH 12000 - Design Thinking In Technology (satisfies Information Literacy AND Science, Technology & Society Selective for core)
- Human Cultures (satisfies Humanities for core) - Credit Hours: 3.00
- Humanities Elective (possible Cornerstone Selective) - Credit Hours: 6.00
- Science Selective (satisfies Science for core) - Credit Hours: 3.00

- Advanced English (possible Cornerstone Selective) - Credit Horus: 3.00
- Statistics Selective - Credit Hours: 3.00
- Management Elective - Credit Hours: 3.00
- Communication Selective (Possible Cornerstone) - Credit Hours: 3.00
- Technical Electives - Credit Hours: 9.00
- CGT Global Selective - Credit Hours: 3.00

Electives (15 credits)

Any course, any subject. Credit Hours: 15.00

Additional Requirements

Click here for Visual Effects Compositing Supplement Course Information.

Cornerstone Certificate required. Click here for Cornerstone Certificate.

University Core Requirements

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

For a complete listing of course selectives, visit the Provost's Website.

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- CGT 10101 - Foundations Of Computer Graphics Technology
- CGT 11800 - Fundamentals Of Imaging Technology
- TECH 12000 - Design Thinking In Technology
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity
- MA 15800 - Precalculus- Functions And Trigonometry

14 Credits

Spring 1st Year

- CGT 11600 - Geometric Modeling For Visualization And Communication
- CGT 14100 - Internet Foundations Technologies And Development
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World
- MA 16010 - Applied Calculus I

- PHYS 21800 - General Physics or
- PHYS 22000 - General Physics

16 Credits

Fall 2nd Year

- CGT 21500 - Computer Graphics Programming I
- PSY 12000 - Elementary Psychology
- Human Culture: Humanities - Credit Hours: 3.00
- Tech Elective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Spring 2nd Year

- CGT 14700 - Visual Effects Introduction
- CGT 24100 - Introduction to Computer Animation
- CGT 25001 - Computer Graphics Professional Practices I
- ECON 21000 - Principles Of Economics
- Science Foundational Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

16 Credits

Fall 3rd Year

- CGT 24700 - Visual Effects - Particles And Procedural Effects
- CGT 34000 - Digital Lighting And Rendering for Computer Animation
- Humanities Elective - Credit Hours: 3.00
- Advanced English Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Spring 3rd Year

- CGT 24600 - Compositing I
- CGT 34800 - Photorealistic Shaders
- CGT Global Selective - Credit Hours: 3.00
- Statistics Selective - Credit Hours: 3.00
- Management Selective - Credit Hours: 3.00

15 Credits

Fall 4th Year

- CGT 34600 - Digital Video And Audio
- CGT 41101 - Contemporary Problems In Applied Computer Graphics I
- MGMT 45500 - Legal Background For Business I
- Technical Elective - Credit Hours: 3.00
- Humanities Elective - Credit Hours: 3.00
- Elective - Credi Hours: 3.00

17 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.
- 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. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Disclaimer

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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 PHP and open source MySQL to the Microsoft and ASP environments, you will gain a broad spectrum of programming capabilities and concepts that will allow you to prosper and adapt in this constantly changing industry.

Web Programming and Design Website

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (41 credits)

Required Major Courses (32 credits)

- CGT 10101 - Foundations Of Computer Graphics Technology
- CGT 11600 - Geometric Modeling For Visualization And Communication
- CGT 11800 - Fundamentals Of Imaging Technology
- CGT 14100 - Internet Foundations Technologies And Development
- CGT 21500 - Computer Graphics Programming I
- CGT 25001 - Computer Graphics Professional Practices I
- CGT 25600 - Principles Of User Experience Design
- 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 21800 - General Physics *(satisfies Science Selective for core)* or
- PHYS 22000 - General Physics *(satisfies Science Selective for core)*

- PSY 12000 - Elementary Psychology *(satisfies Human Culture Behavioral/Social 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*)*
- TECH 12000 - Design Thinking In Technology *(satisfies Information Literacy AND Science, Technology & Society Selective for core)*
- Human Cultures Selective (satisfies Humanities for core & a Cornerstone Selective)- Credit Hours: 3.00
- Humanities Elective (possible Cornerstone Selective) - Credit Hours: 6.00
- Science Selective (satisfies Science Selective for core) - Credit Hours: 3.00
- Advanced English Selective (possible Cornerstone Selective) - Credit Hours: 3.00
- Statistics Selective - 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 (15 credits)

Any course, any subject. Credit Hours: 15.00

Additional Requirements

Click here for Web Programming & Design Supplemental Course Information.

Cornerstone Certificate required. Click here for Cornerstone Certificate.

University Core Requirements

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

For a complete listing of course selectives, visit the Provost's Website.

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- CGT 10101 - Foundations Of Computer Graphics Technology
- CGT 11800 - Fundamentals Of Imaging Technology
- TECH 12000 - Design Thinking In Technology
- MA 15800 - Precalculus- Functions And Trigonometry
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity

14 Credits

Spring 1st Year

- CGT 11600 - Geometric Modeling For Visualization And Communication
- CGT 14100 - Internet Foundations Technologies And Development
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World
- MA 16010 - Applied Calculus I

- PHYS 21800 - General Physics or
- PHYS 22000 - General Physics

16 Credits

Fall 2nd Year

- CGT 21500 - Computer Graphics Programming I
- PSY 12000 - Elementary Psychology
- Human Cultures: Humanities - Credit Hours: 3.00

- Elective - Credit Hours: 3.00
- Technical Elective - Credit Hours: 3.00

15 Credits

Spring 2nd Year

- CGT 25600 - Principles Of User Experience Design
- CGT 25001 - Computer Graphics Professional Practices I
- ECON 21000 - Principles Of Economics
- CGT Selective - Credit Hours: 3.00
- Science Foundational Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

16 Credits

Fall 3rd Year

- CGT 35600 - Web Programming, Development And Data Integration
- CGT Selective - Credit Hours: 3.00
- Humanities Elective - Credit Hours: 3.00
- Advanced English Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Spring 3rd Year

- CGT 45600 - Advanced Web Programming, Development And Data Integration
- CGT Selective - Credit Hours: 3.00
- CGT Globalization Selective - Credit Hours: 3.00
- Statistics Selective - Credit Hours: 3.00
- Management Selective - Credit Hours: 3.00

15 Credits

Fall 4th Year

- CGT 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
- Elective - Credit Hours: 3.00
- Technical Elective - Credit Hours: 3.00

17 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 - Credit Hours: 3.00
- Technical Elective - Credit Hours: 3.00

12 Credits

Notes

- Students must earn a "C-" or better in all CGT courses.
- 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. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Disclaimer

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

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Minor

Construction Graphics Minor

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

Requirements for the Minor (12 credits)

Required Courses (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

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.

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 (11-12 credits)

Prerequisite Courses (2-3 credits)

- CGT 11000 - Technical Graphics Communications -Pre-Req for CGT 22600
- CGT 11600 - Geometric Modeling For Visualization And Communication -Pre-Req for CGT 22600
- CGT 16300 - Graphical Communication And Spatial Analysis -Pre-Req for CGT 22600
- CGT 16400 - Graphics For Civil Engineering And Construction -Pre-Req for CGT 22600
- An approved substitution

Required Courses (6 credits)

- CGT 22600 - Introduction To Constraint-Based Modeling -Pre-Req for all upper-level courses
- CGT 32600 - Graphics Standards For Product Definition

Selective - Choose One (3 credits)

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

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.

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

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

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 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
- ECET Selective - Credit Hours: 3.00
- 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 21800 - General Physics (satisfies Science for core) or
- PHYS 21900 - General Physics II (satisfies Science for core) or

- PHYS 22000 - General Physics (satisfies Science for core) or
- PHYS 22100 - General Physics (satisfies Science for the core)

- TECH 12000 - Design Thinking In Technology (satisfies Information Literacy and Science, Technology & Society for core)
- THTR 16300 - Introduction To Sound Design And Technology ♦
- THTR 20100 - Theatre Appreciation (satisfies Human Cultures: Humanities for core)
- THTR 35300 - Theater Audio Techniques I

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

- THTR 36800 - Theatre Production II (2 for Theater Production Minor) or
- DANC 36800 - Dance Sound Design (2 for Theater Production Minor)

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

- Industrial Economics Selective - Credit Hours: 3.00
- Acoustics Selective - Credit Hours: 3.00
- Freshman Speech Selective+ - Credit Hours: 3.00 (satisfies Oral Communication for core)
- English Composition Selective+ - Credit Hours: 3.00 (satisfies Written Communication for core)
- Business Selective - Credit Hours: 3.00
- Written Communication Selective+ - Credit Hours: 3.00
- Oral Communication Selective+ - Credit Hours: 3.00
- General Education Selective+ - Credit Hours: 3.00
- Advanced Theatre Sound Selective - Credit Hours: 3.00
- Intercultural Requirement - Credit Hours: 0.00
- Professional Requirement - Credit Hours: 0.00

Electives + (3 credits)

Any non-remedial course.

University Core Requirements

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

For a complete listing of course selectives, visit the Provost's Website.

Prerequisite Information:

For current pre-requisites for courses, click here.

Additional Degree Requirements

Click here for Audio 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 *
- English Composition Selective+ - Credit Hours: 3.00*

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 * or
- PHYS 21800 - General Physics *
- Freshman Speech Selective+ - Credit Hours: 3.00*

16 Credits

Fall 2nd Year

- ECET 22700 - DC And Pulse Electronics ♦
- ECET 22900 - Concurrent Digital Systems
- PHYS 21900 - General Physics II * or
- PHYS 22100 - General Physics *
- THTR 16300 - Introduction To Sound Design And Technology ♦
- Written Communication Selective+ - Credit Hours: 3.00

15 Credits

Spring 2nd Year

- ECET 27000 - Electronics Prototype Development And Construction
- ECET 27400 - Wireless Communications
- ECET 27700 - AC And Power Electronics
- THTR 20100 - Theatre Appreciation *
- Oral Communication Selective+ - Credit Hours: 3.00

15 Credits

Fall 3rd Year

- ECET 33700 - Continuous Systems Analysis And Design
- ECET 37600 - Electrical Energy Systems
- ECET 38001 - Global Professional Issues In Engineering Technology

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

- Business Selective - Credit Hours: 3.00 *

15 Credits

Spring 3rd Year

- ECET 27900 - Embedded Digital Systems ♦
- ECET 38800 - Analog IC Applications

- THTR 36800 - Theatre Production II or
- DANC 36800 - Dance Sound Design

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

- Acoustics Selective - Credit Hours: 3.00
- Industrial Economics Selective - Credit Hours: 3.00

16 Credits

Fall 4th Year

- ECET 33900 - Digital Signal Processing
- THTR 35300 - Theater Audio Techniques I
- Senior Capstone I Selective - Credit Hours: 3.00

- ECET Selective - Credit Hours: 3.00
- General Education Selective+ - Credit Hours: 3.00

15 Credits

Spring 4th Year

- ECET 42800 - Audio Electronics-Selected Topics
- Senior Capstone II Selective - Credit Hours: 3.00
- Elective+ - Credit Hours: 3.00
- Advanced Theater Sound Selective - Credit Hours: 3.00
- Intercultural Requirement - Credit Hours: 0.00
- Professional Requirement - Credit Hours: 0.00

12 Credits

Notes

*Fulfills University Core Curriculum requirement.

Human Cultures Behavioral/Social Science for University Core may be selected to satisfy either the Business 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 Selectives must be taken at the Purdue University location conferring the degree.

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

Intercultural Requirement (ungraded) must be completed.

Professional Requirement (ungraded) must be completed.

+ The options for this selective include at least one course that will also satisfy Cornerstone Certificate requirements.

Critical Course

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

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

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 (https://polytechnic.purdue.edu/degrees/automation-and-systems-integration-engineering-technology)

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 (MET 16400, CNIT 17500, CS 15800, or CS 15900)
- 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)

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

- Physics Selective (choose from PHYS 21800, PHYS 22000, PHYS 17200) (satisfies Science for core)
- Science Selective (satisfies Science for core) - Credit Hours: 3.00
- 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
- Humanities/Social Science Elective - Credit Hours: 3.00
- CGT Selective (choose from CGT 11000, CGT 16300, or IT 10500) - Credit Hours: 2.00
- Statistics/Quality Selective (choose between STAT 30100 or TLI 31600) - Credit Hours: 3.00
- Technical Elective - 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)

University Core Requirements

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

For a complete listing of course selectives, visit the Provost's Website.

Prerequisite Information:

For current pre-requisites for courses, click here.

Additional Requirements

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

Degree Requirements

Fall 1st Year

- MA 16010 - Applied Calculus I *
- CNIT 10500 - Introduction To C Programming
- ENGT 18000 - Engineering Technology Foundations ♦
- ENGT 18100 - Engineering Technology Applications
- Freshman Composition Selective - Credit Hours: 3.00 *
- Materials and Processes Selective - Credit Hours: 3.00

16 Credits

Spring 1st Year

- MA 16020 - Applied Calculus II
- MET 11100 - Applied Statics
- TECH 12000 - Design Thinking In Technology *
- Freshman Speech Selective + - Credit Hours: 3.00 *
- Materials and Processes Selective - Credit Hours: 3.00

15 Credits

Fall 2nd Year

- MET 11300 - Mechanics Applications
- ECET 22400 - Electronic Systems ♦
- CHM 11100 - General Chemistry *
- Behavioral/Social Science Foundation Selective - Credit Hours: 3.00 *
- Computer Graphics Selective - Credit Hours: 2.00
- Humanities Foundation Selective - Credit Hours: 3.00 *

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

15 Credits

Fall 4th Year

- ECET 38001 - Global Professional Issues In Engineering Technology

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

- 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 Elective - Credit Hours: 3.00
- Technical Elective - Credit Hours: 3.00

- Elective - Credit Hours: 3.00

15 Credits

Notes

*Fulfills University core.

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

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

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.

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

Electrical Engineering Technology Website

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 Electives - 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 21800 - General Physics (satisfies Science for core) or
- PHYS 22000 - General Physics (satisfies Science for core)

- PHYS 21900 - General Physics II (satisfies Science for core) or
- PHYS 22100 - General Physics (satisfies Science for core)

- TECH 12000 - Design Thinking In Technology (satisfies Information Literacy and Science, Technology & Society for core)

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

- Freshman Speech Selective^ - Credit Hours: 3.00 (satisfies Oral Communication for core)
- English Composition Selective^ - Credit Hours: 3.00 (satisfies Written Communication for core)
- Business Selective - Credit Hours: 3.00
- General Education Human Cultures: Humanities Selective^ - Credit Hours: 3.00
- General Education Human Cultures: Behavioral/Social Sciences Selective^ - Credit Hours: 3.00

- General Education Selectives^ - Credit Hours: 6.00
- Oral Communication Selective^ - Credit Hours: 3.00
- Written 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/Internship - 0.0 Credit Hours
- Industrial Economics Selective - Credit Hours: 3.00

Elective^ (3 credits)

Additional Requirements

Click here for Electrical Engineering Technology Supplemental Information.

University Core Requirements

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

For a complete listing of course selectives, visit the Provost's Website.

Prerequisite Information:

For current pre-requisites for courses, click here.

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
- English Composition Selective^ - Credit Hours: 3.00

16 Credits

Spring 1st Year

- ECET 17700 - Data Acquisition And Systems Control
- ECET 17900 - Introduction To Digital Systems
- MA 16020 - Applied Calculus II
- Freshmen Speech Selective^ - Credit Hours: 3.00

- PHYS 21800 - General Physics or
- PHYS 22000 - General Physics

16 Credits

Fall 2nd Year

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

- ECET 22700 - DC And Pulse Electronics ♦
- ECET 22900 - Concurrent Digital Systems
- General Education Selective^ - Credit Hours: 3.00
- Written Communication 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 Selective - Credit Hours: 3.00
- ECET Advanced Analysis Selective - Credit Hours: 3.00

15 Credits

Spring 3rd Year

- ECET 27900 - Embedded Digital Systems ♦
- ECET Selective - Credit Hours: 3.00
- Business Selective** - Credit Hours: 3.00
- Technical Selective - Credit Hours: 3.00
- Industrial Economics 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
- Intercultural Requirement - Credit Hours: 0.00
- Professional Requirement/Internship - Credit Hours: 0.00

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 Selectives must be taken at the Purdue University location conferring the degree.
- 32 credit hours of 300-level or higher courses must be completed at Purdue University.
- 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 Supplemental Information For Electrical Engineering Technology (EETC) Fall 2017 Plan of Study sheet for a complete list of selectives and requirements (including ungraded requirements)
- ^The options for this selective include at least one course that will also satisfy Cornerstone Certificate requirements.

Critical Course

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

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

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

Degree Requirements

120 Credits Required

Department/Program Major Courses (66 credits)

Required Department Courses (27 credits)

- TLI 11200 - Foundations Of Organizational Leadership
- TLI 21300 - Project Management
- TLI 21400 - Introduction To Supply Chain Management Technology
- TLI 31300 - Technology Innovation And Integration: Bar Codes To Biometrics
- TLI 31400 - Leading Innovation In Organizations
- TLI 36700 - Teaching Design And Innovation I
- TLI 31600 - Statistical Quality Control
- TLI 41400 - Financial Analysis For Technology Systems

Required Major Courses (39 credits)

- CGT 11000 - Technical Graphics Communications
- MET 24500 - Manufacturing Systems
- TLI 23500 - Introduction To Lean And Sustainable Systems
- TLI 33400 - Economic Analysis For Technology Systems
- TLI 33520 - Human Factors For Technology Systems
- TLI 33620 - Total Productive Maintenance
- TLI 43530 - Operations Planning And Management
- TLI 43640 - Lean Six Sigma
- TLI 45700 - Technology Policy And Law
- TLI 48390 - Industrial Engineering Technology Capstone I: Problem Identification And Analysis
- TLI 48395 - Industrial Engineering Technology Capstone II: Facility Design

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

- TLI Selective - Credit Hours: 3.00

Other Major Requirements

- Internship Experience - Credit Hours: 0.00
- Globalization Experience - Credit Hours: 0.00

Other Departmental Requirements (37 credits)

Other Departmental Courses (13 credits)

- ECON 21000 - Principles Of Economics

- PHYS 21800 - General Physics *(satisfies Science Selective for core)* or
- PHYS 22000 - General Physics *(satisfies Science Selective for core)*

- TECH 12000 - Design Thinking In Technology *(satisfies both Information Literacy* and *Science, Technology and Society for core)*

- MA 15555 - Quantitative Reasoning or
- MA 15800 - Precalculus- Functions And Trigonometry

Selectives (24 credits)

- Behavioral/Social Science Selective *(satisfies Behaviorial/Social Science for core)* - Credit Hours: 3.00
- Humanities Selective *(satisfies Humanities for core)* - Credit Hours: 3.00
- Science Selective *(satisfies Science 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

- Mathematics/Statistics Selective - Credit Hours: 3.00
- History of Science & Technology Selective - Credit Hours: 3.00
- Advanced Communication Selective - Credit Hours: 3.00

Technical Electives (8 credits)

- Technical Electives - Credit Hours: 8.00

Electives (9 credits)

- Any course, any subject - Credit Hours: 9.00

Additional Requirements

Click here for Industrial Engineering Technology Supplemental Information.

University Core Requirements

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

For a complete listing of course selectives, visit the Provost's Website.

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- MA 15800 - Precalculus- Functions And Trigonometry or
- MA 15555 - Quantitative Reasoning

- TECH 12000 - Design Thinking In Technology
- Humanities Selective - Credit Hours: 3.00
- Oral Communication Selective - Credit Hours: 3.00

15 Credits

Spring 1st Year

- TLI 11200 - Foundations Of Organizational Leadership
- PHYS 21800 - General Physics

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

- Mathematics/Statistics Selective - Credit Hours: 3.00
- Written Communication Selective - Credit Hours: 3.00

16-17 Credits

Fall 2nd Year

- CGT 11000 - Technical Graphics Communications
- TLI 21300 - Project Management
- TLI 21400 - Introduction To Supply Chain Management Technology
- TLI 23500 - Introduction To Lean And Sustainable Systems
- Science Selective - Credit Hours: 3.00

15 Credits

Spring 2nd Year

- ECON 21000 - Principles Of Economics
- MET 24500 - Manufacturing Systems
- TLI 31300 - Technology Innovation And Integration: Bar Codes To Biometrics
- Behavioral & Social Science Selective - Credit Hours: 3.00
- History of Science & Tech Selective - Credit Hours: 3.00

15 Credits

Fall 3rd Year

- TLI 31400 - Leading Innovation In Organizations
- TLI 31600 - Statistical Quality Control
- TLI 33400 - Economic Analysis For Technology Systems
- TLI 33520 - Human Factors For Technology Systems
- TLI Selective - Credit Hours: 3.00

15 Credits

Spring 3rd Year

- TLI 36700 - Teaching Design And Innovation I
- TLI 33620 - Total Productive Maintenance
- TLI 43530 - Operations Planning And Management
- TLI 43640 - Lean Six Sigma
- Technical Elective - Credit Hours: 3.00

15 Credits

Fall 4th Year

- TLI 41400 - Financial Analysis For Technology Systems
- TLI 45700 - Technology Policy And Law
- TLI 48390 - Industrial Engineering Technology Capstone I: Problem Identification And Analysis
- Advanced Communication Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Spring 4th Year

- TLI 48395 - Industrial Engineering Technology Capstone II: Facility Design
- Technical Elective - Credit Hours: 5.00
- Elective - Credit Hours: 6.00

14 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. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

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 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

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 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)

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

- 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 Core Requirements

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

For a complete listing of course selectives, visit the Provost's Website.

Prerequisite Information:

For current pre-requisites for courses, click here.

Additional Requirements

Click here for Mechanical Engineering Technology Supplemental Information.

Program Requirements

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

Fall 1st Year

- MA 16010 - Applied Calculus I *
- MET 14400 - Materials And Processes II Freshman Speech Selective+ -Credit hours: 3.00 *
- ENGT 18000 - Engineering Technology Foundations
- ENGT 18100 - Engineering Technology Applications
- Computer Graphics Technology Selective - Credit Hours: 2.00

15 Credits

Spring 1st Year

- TECH 12000 - Design Thinking In Technology *
- MET 11100 - Applied Statics
- MET 14300 - Materials And Processes I
- MA 16020 - Applied Calculus II
- Freshman Composition Selective - Credit Hours: 3.00 *

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 21300 - Dynamics
- MET 10200 - Production Design And Specifications
- 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

- TLI 33400 - Economic Analysis For Technology Systems
- MET 31300 - Applied Fluid Mechanics
- MET Capstone Selective I - Credit Hours: 3.00
- Technical/Management (TECH/MGMT) Selective - Credit Hours: 3.00
- Technical Writing Selective+ - Credit Hours: 3.00

15 Credits

Spring 4th Year

- 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
- Communications Selective+ - Credit Hours: 3.00
- Professional Requirement - Credit Hours: 0.00
- Intercultural Requirement - Credit Hours: 0.00

15 Credits

Notes

1. A 2.0 Graduation GPA are required for the Bachelor of Science degree.

2. Students must earn a "D-" or better in all courses unless otherwise noted.

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

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

5. Complete a Professional Requirement.

6. Complete an Intercultural Requirement.

7. + denotes optional Cornerstone Certificate course.

Degree Requirements

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

Degree Works is the knowledge source for specific requirements and completion.

Critical Course

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

Disclaimer

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

Mechatronics Engineering Technology, BS

About the Program

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

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (120 credits)

Required Major Courses (62 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
- MET 38200 - Controls And Instrumentation For Automation
- MFET 34400 - Automated Manufacturing Processes
- MFET 37400 - Manufacturing Integration I
- 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
- CNIT 10500 - Introduction To C Programming ♦
- 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

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

- 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 Core Requirements

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

For a complete listing of course selectives, visit the Provost's Website.

Prerequisite Information:

For current pre-requisites for courses, click here.

Additional Requirements

Click here for Mechatronics Engineering Technology Supplemental Information.

Program Requirements

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

Fall 1st Year

- MA 16010 - Applied Calculus I
- ENGT 18000 - Engineering Technology Foundations ♦
- ENGT 18100 - Engineering Technology Applications
- CNIT 10500 - Introduction To C Programming ♦
- 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 *
- Freshman Speech Selective + - Credit hours: 3.00 *

15 Credits

Fall 2nd Year

- CHM 11100 - General Chemistry *
- ECET 17900 - Introduction To Digital Systems
- MET 28400 - Introduction To Industrial Controls
- MET 11300 - Mechanics Applications
- Computer Graphics Selective - Credit Hours: 2.00
- Humanities Foundational Selective - Credit Hours: 3.00 *

15 Credits

Spring 2nd Year

- MET 10200 - Production Design And Specifications
- MET 24500 - Manufacturing Systems
- ECET 27900 - Embedded Digital 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

- ECET 38001 - Global Professional Issues In Engineering Technology
- ECET 33700 - Continuous Systems Analysis And Design
- MFET 37400 - Manufacturing Integration I
- Statistics or Quality Selective - Credit Hours: 3.00
- Manufacturing Selective - Credit Hours: 3.00

15 Credits

Fall 4th Year

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

- Mechatronics Selective - Credit Hours: 3.00
- 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

*Fulfills University core.

A 2.0 Graduation GPA are required for the Bachelor of Science degree.

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

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

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

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (59 credits)

Required Major Courses (59 credits)

- CNIT 10500 - Introduction To C Programming ♦
- 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
- Manufacturing Selective - Credit Hours: 3.00
- Materials and Processes Selective - Credit Hours: 3.00

ROET Courses

- ECET 32700 - Instrumentation And Data Acquisition Design
- ECET 33700 - Continuous Systems Analysis And Design
- MFET 34800 - Advanced Industrial Robotics
- Mechatronics/Controls Selective - Credit Hours: 3.00
- Manufacturing/Controls Selective - Credit Hours: 3.00
- Capstone Selective I
- Casptone Selective II
- Professional Selective - Credit Hours: 0.00
- Intercultural Requirement - Credit Hours: 0.00

Other Departmental/Program Course Requirements (57 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 Information Literacy and Science, Technology & Society for core)
- TLI 33400 - Economic Analysis For Technology Systems
- Freshman Speech Selective + (satisfies Oral Communication for core)
- Communications Selective +
- Technical Writing Selective +
- 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
- Technical Elective - Credit Hours: 3.00
- Computer Graphics Selective - Credit Hours: 2.00
- Physics Selective (satisfies Science for core) - Credit Hours: 4.00
- Statistics/Quality Selective - Credit Hours: 3.00

Electives (4 credits)

Any non-remedial course

University Core Requirements

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

For a complete listing of course selectives, visit the Provost's Website.

Prerequisite Information:

For current pre-requisites for courses, click here.

Additional Requirements

Click here for Robotics Engineering Technology Supplemental Information.

Program Requirements

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

Fall 1st Year

- MA 16010 - Applied Calculus I *
- ENGT 18000 - Engineering Technology Foundations ♦
- ENGT 18100 - Engineering Technology Applications ♦
- CNIT 10500 - Introduction To C Programming
- Freshman Composition Selective - Credit Hours: 3.00 *
- Materials and Processes 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 *

- Freshman Speech Selective - Credit Hours: 3.00 *

15 Credits

Fall 2nd Year

- CHM 11100 - General Chemistry
- MET 11300 - Mechanics Applications Humanities Foundation Selective - Credit Hours: 3.00 *
- MET 28400 - Introduction To Industrial Controls Behavioral/Social Science Foundation Selective - Credit Hours: 3.00 *
- Computer Graphics Selective - Credit Hours: 2.00

15 Credits

Spring 2nd Year

- MET 10200 - Production Design And Specifications
- MET 24500 - Manufacturing Systems
- MFET 24800 - Introduction To Robotics
- Physics Selective - Credit Hours: 4.00 *
- Elective - Credit Hours: 3.00

16 Credits

Fall 3rd Year

- ECET 32700 - Instrumentation And Data Acquisition Design
- MET 23000 - Fluid Power
- MFET 34400 - Automated Manufacturing Processes
- Statistics or Quality Selective - Credit Hours: 3.00
- Science Selective - Credit Hours: 3.00 *

15 Credits

Spring 3rd Year

- ECET 33700 - Continuous Systems Analysis And Design
- ECET 38001 - Global Professional Issues In Engineering Technology
- MFET 37400 - Manufacturing Integration I
- Manufacturing Selective - Credit Hours: 3.00
- Humanities/Social Science Elective - Credit Hours: 3.00

15 Credits

Fall 4th Year

- MFET 34800 - Advanced Industrial Robotics

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

- Communications Selective +
- Mechatronics/Controls Selective - Credit Hours: 3.00
- Capstone Selective I

15 Credits

Spring 4th Year

- Capstone Selective II - Credit Hours: 3.00
- Humanities/Social Science Elective - Credit Hours: 3.00
- Technical Elective - Credit Hours: 3.00
- Manufacturing/Controls Selective - Credit Hours: 3.00
- Elective - Credit Hours: 1.00
- Interculture requirement - Credit Hours: 0.00
- Professional requirement - Credit Hours: 0.00

13 Credits

Notes

*Fulfills University core.

2.0 Graduation GPA are required for the Bachelor of Science degree.

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.

+ denotes Cornerstone Certificate option.

Critical Course

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

Disclaimer

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

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Supply Chain Management Technology, BS

About the Program

Virtually all corporations are dependent upon their supply chains to manage the flow of goods, services and information to help customers. You will study the entire supply chain enterprise yet have the flexibility to select courses for your chosen career path. 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 Management Technology Website

Degree Requirements

120 Credits Required

Department/Program Major Courses (75 credits)

Required Department Courses (27 credits)

- TLI 11100 - Introduction To Manufacturing And Supply Chain Systems
- TLI 11200 - Foundations Of Organizational Leadership
- TLI 21300 - Project Management
- TLI 21400 - Introduction To Supply Chain Management Technology
- TLI 31300 - Technology Innovation And Integration: Bar Codes To Biometrics
- TLI 31400 - Leading Innovation In Organizations
- TLI 31600 - Statistical Quality Control
- TLI 41400 - Financial Analysis For Technology Systems

- TLI 31500 - New Product Development or
- TLI 36700 - Teaching Design And Innovation I

- Globalization Experience - Credit Hours: 0.0
- Internship Experience - Credit Hours: 0.0

Required Major Courses (48 credits)

- MGMT 20010 - Business Accounting
- MGMT 32300 - Principles Of Marketing
- TLI 23500 - Introduction To Lean And Sustainable Systems
- TLI 34200 - Warehouse And Inventory Management
- TLI 34250 - Purchasing And Contract Management

- TLI 34300 - Technical And Service Selling
- TLI 34350 - Business To Business Sales Management
- TLI 43530 - Operations Planning And Management
- TLI 43640 - Lean Six Sigma
- TLI 44275 - Global Transportation And Logistics Management
- TLI 48490 - Supply Chain Management Technology Capstone I: Strategic Planning
- TLI 48495 - Supply Change Management Technology Capstone II: Strategic Analytics

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

- Technical Electives - Credit Hours: 9.00

Other Departmental Courses (36 Credits)

- ECON 21000 - Principles Of Economics
- TECH 12000 - Design Thinking In Technology *(satisfies both Information Literacy* and *Science, Technology and Society for core)*

- MA 15555 - Quantitative Reasoning or
- MA 15800 - Precalculus- Functions And Trigonometry *(satisfies Quantitative Reasoning for core)*

- 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
- Science Selective *(satisfies Science 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
- Mathematics/Statistics Selective - Credit Hours: 3.00
- History of Science & Technology Selective - Credit Hours: 3.00
- Advanced Communication Selective - Credit Hours: 3.00

Electives (9 credits)

Any non-remedial course.

University Core Requirements

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

For a complete listing of course selectives, visit the Provost's Website.

Prerequisite Information:

For current pre-requisites for courses, click here.

Additional Requirements

Click here for Supply Chain Management Technology Supplemental Information.

Program Requirements

Fall 1st Year

- TLI 11100 - Introduction To Manufacturing And Supply Chain Systems
- TECH 12000 - Design Thinking In Technology

- MA 15555 - Quantitative Reasoning or
- MA 15800 - Precalculus- Functions And Trigonometry

- Communication Selective - Credit Hours: 3.0
- Humanities Selective - Credit Hours: 3.0

15 Credits

Spring 1st Year

- TLI 11200 - Foundations Of Organizational Leadership
- TLI 21400 - Introduction To Supply Chain Management Technology
- Behavioral/Social Science Selective - Credit Hours: 3.0
- Lab Science Selective - Credit Hours: 3.0
- Written Communication Selectiv - Credit Hours: 3.0

15 Credits

Fall 2nd Year

- TLI 21300 - Project Management
- TLI 23500 - Introduction To Lean And Sustainable Systems

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

- Science Selective*

- Mathematics/Statistics Selective

15 Credits

Spring 2nd Year

- ECON 21000 - Principles Of Economics
- MGMT 20010 - Business Accounting
- Elective - Credit Hours: 3.0
- History of Science and Tech Selective - Credit Hours: 3.0
- Technical Elective - Credit Hours: 3.0

15 Credits

Fall 3rd Year

- TLI 31300 - Technology Innovation And Integration: Bar Codes To Biometrics
- TLI 31400 - Leading Innovation In Organizations
- TLI 31600 - Statistical Quality Control
- MGMT 32300 - Principles Of Marketing
- Advanced Communication Selective - Credit Hours: 3.0

15 Credits

Spring 3rd Year

- TLI 36700 - Teaching Design And Innovation I
- TLI 34200 - Warehouse And Inventory Management
- TLI 34250 - Purchasing And Contract Management
- TLI 34300 - Technical And Service Selling
- TLI 43530 - Operations Planning And Management

15 Credits

Fall 4th Year

- TLI 34350 - Business To Business Sales Management
- TLI 41400 - Financial Analysis For Technology Systems
- TLI 43640 - Lean Six Sigma
- TLI 44275 - Global Transportation And Logistics Management
- TLI 48490 - Supply Chain Management Technology Capstone I: Strategic Planning

15 Credits

Spring 4th Year

- TLI 48495 - Supply Change Management Technology Capstone II: Strategic Analytics
- Elective - Credit Hours: 3.0
- Elective - Credit Hours: 3.0
- Technical Elective - Credit Hours: 3.0
- Technical Elective - Credit Hours: 3.0

15 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. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Disclaimer

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

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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 earning degrees in Electrical Engineering Technology and Audio Engineering Technology.

Requirements for the Minor (15 credits)

Required Courses (15 credits)

- ECET 17900 - Introduction To Digital Systems
- ECET 22700 - DC And Pulse Electronics

- ECET 17700 - Data Acquisition And Systems Control or
- ECET 22400 - Electronic Systems or

- ECE 20100 - Linear Circuit Analysis I and
- ECET 20700 - AC Electronics Circuit Analysis

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

- One additional lab-based ECET course at the 200-level or higher (Approved substitution for additional ECET course: MET 28400. ECET 22400 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
- CNIT 15501 - Introduction To Software Development Concepts
- CS 15800 - C Programming
- CS 15900 - Programming Applications For Engineers
- 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.

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.

Supply Chain Management Technology Minor

Supply chain management technology is a discipline that is needed to some degree by virtually every organization. The minor offers the basic knowledge and understanding of supply chain management technologies to seek employment opportunities with a supporting skill set for supply chain operations.

Four key technologies typically influence the supply chain: software, electronic business technologies (including web portals), visibility and productivity technologies (bar codes, RFID, etc.), and process advances, such as Six Sigma and Lean processes.

Requirements for the Minor (15 credits)

Required Courses (15 credits)

- TLI 23500 - Introduction To Lean And Sustainable Systems

- TLI 21400 - Introduction To Supply Chain Management Technology
- TLI 31300 - Technology Innovation And Integration: Bar Codes To Biometrics
- TLI 34300 - Technical And Service Selling

- TLI 34200 - Warehouse And Inventory Management or
- TLI 34250 - Purchasing And Contract Management

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.

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

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

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

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.

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.

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

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.

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (75 credits)

- MGMT 20010 - Business Accounting
- TLI 11100 - Introduction To Manufacturing And Supply Chain Systems
- TLI 11200 - Foundations Of Organizational Leadership
- TLI 21300 - Project Management
- TLI 21400 - Introduction To Supply Chain Management Technology
- TLI 31300 - Technology Innovation And Integration: Bar Codes To Biometrics
- TLI 31400 - Leading Innovation In Organizations
- TLI 31600 - Statistical Quality Control
- TLI 41400 - Financial Analysis For Technology Systems
- TLI 25500 - Foundations Of Human Resource Development
- TLI 35510 - Training And Development
- TLI 35520 - Organization Development
- TLI 35530 - Strategic Planning
- TLI 35540 - Staffing Organizations
- TLI 35560 - Legal Aspects And Issues In Organizations
- TLI 45570 - Cross-Cultural Issues In Organizations
- TLI 45580 - Human Resource Information Systems

- TLI 48800 - Technology Leadership And Innovation Capstone or
- TLI 48590 - Organizational Leadership Capstone I or
- TLI 48595 - Organizational Leadership Capstone II

- TLI 31500 - New Product Development or
- TECH 22000 - Designing Technology For People

- TLI 33400 - Economic Analysis For Technology Systems or
- MGMT 20000 - Introductory Accounting

- Organizational Experience Selective - Credit Hours: 3.00
- Capstone Selective - Credit Hours: 3.00
- Globalization Experience[1] - Credit Hours: 0.00

Human Resource Management Minor required

Click here for Human Resource Management Minor.

Other Departmental/Program Course Requirements (36 credits)

- COM 11400 - Fundamentals Of Speech Communication *(satisfies Oral Communication for core)*
- TECH 12000 - Design Thinking In Technology *(satisfies both Information Literacy* and *Science, Technology and Society for core)*

- MA 15555 - Quantitative Reasoning or
- MA 15800 - Precalculus- Functions And Trigonometry *(satisfies Quantitative Reasoning for core)*

- PSY 12000 - Elementary Psychology or
- SOC 10000 - Introductory Sociology

- ECON 21000 - Principles Of Economics or
- AGEC 21700 - Economics or
- ECON 25100 - Microeconomics or
- ECON 25200 - Macroeconomics *(satisfies Behavioral/Social Science for core)*

- ENGL 42000 - Business Writing or
- ENGL 42100 - Technical Writing
- Humanities Foundation Selective *(satisfies Humanities for core)* - Credit Hours: 3.00
- Lab Science Foundation Selective *(satisfies Science for core)* - Credit Hours: 3.00
- Science Foundation Selective *(satisfies Science for core)* - Credit Hours: 3.00
- Written Communication Selective *(satisfies Written Communication for core)* - Credit Hours: 3.00
- History of Science & Technology Selective - Credit Hours: 3.00
- Mathematics/Statistics Selective - Credit Hours: 3.00

Electives (9 credits)

Additional Requirements

Click here for Human Resource Developmental Supplemental Information.

University Core Requirements

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

- Quantitative Reasoning

For a complete listing of course selectives, visit the Provost's Website.

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- COM 11400 - Fundamentals Of Speech Communication
- TECH 12000 - Design Thinking In Technology
- TLI 11200 - Foundations Of Organizational Leadership

- MA 15555 - Quantitative Reasoning or
- MA 15800 - Precalculus- Functions And Trigonometry

- Humanities Foundation Selective - Credit Hours: 3.00

15 Credits

Spring 1st Year

- PSY 12000 - Elementary Psychology or
- SOC 10000 - Introductory Sociology

- TLI 11100 - Introduction To Manufacturing And Supply Chain Systems
- Mathematics/Statistics Selective - Credit Hours: 3.00
- Written Communication Selective - Credit Hours: 3.00-4.00
- Lab Science Selective - Credit Hours: 3.00

15-16 Credits

Fall 2nd Year

- ECON 21000 - Principles Of Economics
- TLI 21300 - Project Management
- TLI 25500 - Foundations Of Human Resource Development
- TLI 31400 - Leading Innovation In Organizations
- History of Science & Tech Selective - Credit Hours: 3.00

15 Credits

Spring 2nd Year

- TLI 21400 - Introduction To Supply Chain Management Technology
- TLI 31600 - Statistical Quality Control

- TLI 33400 - Economic Analysis For Technology Systems or
- MGMT 20010 - Business Accounting

- Science Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Fall 3rd Year

- TLI 31300 - Technology Innovation And Integration: Bar Codes To Biometrics
- TLI 35510 - Training And Development
- TLI 35520 - Organization Development
- TLI 35540 - Staffing Organizations
- TLI 35560 - Legal Aspects And Issues In Organizations

15 Credits

Spring 3rd Year

- TLI 35530 - Strategic Planning

- TLI 31500 - New Product Development or
- TECH 22000 - Designing Technology For People

- Human Resource Management minor - Credit Hours: 9.00

15 Credits

Fall 4th Year

- TLI 41400 - Financial Analysis For Technology Systems
- TLI 45570 - Cross-Cultural Issues In Organizations
- TLI 45580 - Human Resource Information Systems

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

- Organizational Experience Selective - Credit Hours: 3.00

15 Credits

Spring 4th Year

- Capstone Selective - Credit Hours: 3.00
- Human Resource Management minor - Credit Hours: 6.00
- Elective - Credit Hours: 6.00

15 Credits

Notes

- 2.0 Graduation GPA required for Bachelor of Science degree.
- "C-" or better required in all HRD major courses
- [1]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. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Disclaimer

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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

Degree Requirements

120 Credits Required

Department/Program Major Courses (75 credits)

Required Department Courses (27 credits)

- TLI 11100 - Introduction To Manufacturing And Supply Chain Systems
- TLI 11200 - Foundations Of Organizational Leadership
- TLI 21300 - Project Management
- TLI 21400 - Introduction To Supply Chain Management Technology
- TLI 31400 - Leading Innovation In Organizations
- TLI 31500 - New Product Development
- TLI 31600 - Statistical Quality Control
- TLI 41400 - Financial Analysis For Technology Systems
- TECH 22000 - Designing Technology For People
  Globalization Experience - Credit Hours: 0.0

Required Major Courses (48 credits)

- TLI 15200 - Business Principles For Organizational Leadership
- TLI 25300 - Principles Of Technology Strategy
- TLI 25400 - Leading Change In Technology Organizations
- TLI 43640 - Lean Six Sigma
- TLI 48590 - Organizational Leadership Capstone I
- TLI 48595 - Organizational Leadership Capstone II

- TLI 33400 - Economic Analysis For Technology Systems or
- MGMT 20010 - Business Accounting or
- MGMT 20000 - Introductory Accounting

- TLI 35600 - Global Technology Leadership or
- TECH 33000 - Technology And The Global Society

- TLI 45700 - Technology Policy And Law or
- OLS 36400 - Professional Development Program

- TLI 45800 - Leadership For Competitive Advantage or
- OLS 48400 - Leadership Strategies For Quality And Productivity

- Leadership Experience Selective - Credit Hours: 3.0
- Technology Focus Selectives - Credit Hours: 12.0
- TLI Selective - Credit Hours: 3.0

Other Departmental Courses (36 Credits)

- TECH 12000 - Design Thinking In Technology *(satisfies both Information Literacy* and *Science, Technology and Society for core)*

- MA 15555 - Quantitative Reasoning or
- MA 15800 - Precalculus- Functions And Trigonometry *(satisfies Quantitative Reasoning for core)*

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

- ECON 25200 - Macroeconomics

- Behavioral/Social Science Selective *(satisfies Behavioral/Social Science for core)* - Credit Hours: 3.0
- Humanities Selective *(satisfies Humanities for core)* - Credit Hours: 3.0
- Lab Science Selective *(satisfies Science for core)* - Credit Hours: 3.0
- Science Selective *(satisfies Science for core)* - Credit Hours: 3.0
- Oral Communication Selective *(satisfies Oral Communication for core)* - Credit Hours: 3.0
- Written Communication Selective *(satisfies Written Communication for core)* - Credit Hours: 3.0
- Mathematics/Statistics Selective - Credit Hours: 3.00
- History of Science & Technology Selective - Credit Hours: 3.0
- Advanced Communication Selective - Credit Hours: 3.0

Electives (9 credits)

University Core Requirements

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

For a complete listing of course selectives, visit the Provost's Website.

Prerequisite Information:

For current pre-requisites for courses, click here.

Additional Requirements

Click here for Organizational Leadership Supplemental Information.

Program Requirements

Fall 1st Year

- TECH 12000 - Design Thinking In Technology
- TLI 11200 - Foundations Of Organizational Leadership

- MA 15555 - Quantitative Reasoning or
- MA 15800 - Precalculus- Functions And Trigonometry

- Oral Communication Selective - Credit Hours: 3.0
- Humanities Selective - Credit Hours: 3.0

15 Credits

Spring 1st Year

- TLI 11100 - Introduction To Manufacturing And Supply Chain Systems
- TLI 15200 - Business Principles For Organizational Leadership
- Lab Science Selective - Credit Hours: 3.0
- Mathematics/Statistics Selective - Credit Hours: 3.0
- Written Communication Selective - Credit Hours: 3.0

15 Credits

Fall 2nd Year

- ECON 21000 - Principles Of Economics
- TLI 21300 - Project Management
- TLI 21400 - Introduction To Supply Chain Management Technology
- TLI 25300 - Principles Of Technology Strategy
- Behavioral/Social Science Selective - Credit Hours: 3.0

15 Credits

Spring 2nd Year

- TLI 25400 - Leading Change In Technology Organizations
- Elective - Credit Hours: 3.0
- History of Science & Technology Selective - Credit Hours: 3.0
- Science Selective - Credit Hours: 3.0
- Technology Focus Selective - Credit Hours: 3.0

15 Credits

Fall 3rd Year

- TLI 31400 - Leading Innovation In Organizations
- TLI 31600 - Statistical Quality Control
- TECH 22000 - Designing Technology For People
- Technology Focus Selective - Credit Hours: 3.0
- TLI Selective - Credit Hours: 3.0

15 Credits

Spring 3rd Year

- TLI 31500 - New Product Development
- TLI 35600 - Global Technology Leadership

- TLI 33400 - Economic Analysis For Technology Systems or
- MGMT 20010 - Business Accounting

- Technology Focus Selective - Credit Hours: 3.0
- Technology Focus Selective - Credit Hours: 3.0

15 Credits

Fall 4th Year

- TLI 41400 - Financial Analysis For Technology Systems
- TLI 45700 - Technology Policy And Law
- TLI 45800 - Leadership For Competitive Advantage
- TLI 48590 - Organizational Leadership Capstone I
- Leadership Experiential Selective - Credit Hours: 3.0

15 Credits

Spring 4th Year

- TLI 43640 - Lean Six Sigma
- TLI 48595 - Organizational Leadership Capstone II
- Advanced Communication Selective - Credit Hours: 3.0
- Elective - Credit Hours: 3.0
- Elective - Credit Hours: 3.0

15 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. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Disclaimer

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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

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

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

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.

Foundational Courses

- EDCI 20500 - Exploring Teaching As A Career
- EDCI 27000 - Introduction To Educational Technology And Computing
- EDCI 28500 - Multiculturalism And Education
- EDPS 23500 - Learning And Motivation
- EDST 20010 - Educational Policies And Laws
- EDPS 26500 - The Inclusive Classroom
- EDPS 32700 - Classroom Assessment
- EDPS 43010 - Secondary Creating And Managing Learning Environments

Methods

- EDCI 30900 - Reading In Middle And Secondary Schools: Methods And Problems

Capstone (16 credits)

- EDCI 49800 - Supervised Teaching

Other Department 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 Selective for core) or
- PHYS 22000 - General Physics (satisfies Science Selective for core)

- PSY 12000 - Elementary Psychology
- Humanities Selective [4] (satisfies Human Cultures Humanities for core)
- Lab Science Foundation Selective[1] (satisfies Science for core)
- Science Selective[2]
- 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.

Additional Requirements

Click here for Technology Education Supplemental Information.

University Core Requirements

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

For a complete listing of course selectives, visit the Provost's Website.

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- TLI 26200 - Foundations Of Integrated STEM Education
- TECH 12000 - Design Thinking In Technology
- EDCI 27000 - Introduction To Educational Technology And Computing
- MA 15300 - College Algebra
- Written Communication Foundation Selective [3] - Credit Hours: 3.00-4.00

15-16 Credits

Spring 1st Year

- TLI 16100 - Prototyping In Engineering/Technology Education
- CGT 11000 - Technical Graphics Communications
- MA 15555 - Quantitative Reasoning
- COM 11400 - Fundamentals Of Speech Communication
- Humanities [4] - Credit Hours: 3.00

15 Credits

Fall 2nd Year

- EDCI 20500 - Exploring Teaching As A Career
- EDCI 28500 - Multiculturalism And Education
- EDST 20010 - Educational Policies And Laws
- Lab Science Foundation Selective[1] - Credit Hours: 3.00
- Technical Elective[6] - Credit Hours: 3.00
- Elective[7] - Credit Hours: 1.00

14 Credits

Spring 2nd Year

- TLI 26500 - Teaching The TE Of STEM
- ECET 22400 - Electronic Systems
- EDPS 23500 - Learning And Motivation
- EDPS 26500 - The Inclusive Classroom

- PHYS 21800 - General Physics or
- PHYS 22000 - General Physics

16 Credits

Fall 3rd Year

- EDPS 32700 - Classroom Assessment
- EDPS 43010 - Secondary Creating And Managing Learning Environments
- PSY 12000 - Elementary Psychology
- 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 36700 - Teaching Design And Innovation I ♦•
- EDCI 30900 - Reading In Middle And Secondary Schools: Methods And Problems •
- Advanced Communication Selective [5] - Credit Hours: 3.00
- Technical Elective [6] - Credit Hours: 3.00 ♦

15 Credits

Fall 4th Year

- TLI 46000 - Teaching Design And Innovation II
- 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

16 Credits

Notes

- 3.0 Professional Education GPA required for Bachelor of Science degree, with at least a C- or higher.
- 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. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

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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

- TLI 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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Biotechnology Minor

Biotechnology refers to harnessing the properties of a living organism to develop and manufacture products that benefit human life. With this minor, you will gain the basic knowledge and understanding of life science-based products, processess, and product quality to prepare you for employment oppurtunities in the area of biotechnology and biotech-manufacturing.

Requirements for the Minor (16 credits)

Required Courses (16 credits)

- IT 22600 - Biotechnology Laboratory I
- IT 22700 - Biotechnology Laboratory II
- Lab Science Selectives - Credit Hours: 6.00
- Statistics Selective - Credit Hours: 3.00

- TLI 52100 - Drug Development or
- TLI 52200 - Good Regulatory Practice

Selectives List

Lab Science Selectives

- BIOL 11000 - Fundamentals Of Biology I
- BIOL 11100 - Fundamentals Of Biology II
- CHM 11100 - General Chemistry
- CHM 11200 - General Chemistry
- CHM 11500 - General Chemistry
- CHM 11600 - General Chemistry

Statistics Selective

- CHE 32000 - Statistical Modeling And Quality Enhancement

- IT 34200 - Introduction To Statistical Quality
- STAT 22500 - Introduction To Probability Models
- STAT 30100 - Elementary Statistical Methods
- STAT 35000 - Introduction To Statistics
- STAT 50300 - Statistical Methods For Biology
- TLI 31600 - Statistical Quality Control

Notes

- 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. Required Courses (9 credits)

- TECH 12000 - Design Thinking In Technology

- TECH 34000 - Prototyping Technology For People or
- TLI 46000 - Teaching Design And Innovation II

- TECH 22000 - Designing Technology For People or
- TLI 36700 - Teaching Design And Innovation I

B. Global/Cultural Experience (3 credits)

- TECH 33000 - Technology And The Global Society
- TECH 40000 - Technology Study Abroad (recommended)

C. Specialization (3 credits)

- Must have grade of "C" or better.

- TLI 31400 - Leading Innovation In Organizations

- TLI 31500 - New Product Development
- TLI 33400 - Economic Analysis For Technology Systems

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 or
- OLS 25200 - Human Relations In Organizations

- 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.

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