The Purdue University College of Technology offers a two-year degree program in mechanical engineering technology (MET); four-year degree programs in electrical engineering technology (EET), engineering technology (ET), industrial technology (IT), and organizational leadership and supervision (OLS).

**ADMISSION CRITERIA**

Students seeking admission to Purdue University’s technology programs must be admitted to the Purdue University College of Technology. Visit [www.admissions.purdue.edu](http://www.admissions.purdue.edu) to apply online. After creating a login for the admissions system, a list of application options will appear. Click on Option 7 College of Technology Statewide. Admission standards are set by the Purdue University College of Technology and are summarized below.

**GRADUATION**

Graduation with a minimum of 15 units or credit hours from a high school accredited by a state department of public instruction or General Education Development (GED).

**MEETING OR EXCEEDING MINIMUM SUBJECT-MATTER REQUIREMENTS**

For admission to the freshman class of the College of Technology, your record must include: English (grammar, composition, literature, speech, and vocabulary—but not journalism, newspaper, yearbook, or theatre arts), eight semesters (four years) of academic mathematics, and four semesters of laboratory science. The record of students who have been out of high school a minimum of five years must include: six semesters of English, four semesters of academic mathematics, and two semesters of laboratory science.

**Meeting Quality Requirements**

Quality is determined by considering a combination of rank in class, test scores, probability of success, grade average in college preparatory subjects, grades in courses related to the degree objective, trends in achievement, completion of high school subject-matter requirements, and the strength of the college preparatory program.

Indiana applicants should demonstrate that they belong to one-half of the available pool of prospective students. This may be shown by several measurements—high school rank, test scores, and academic grade average—in combination with the other factors listed above.

Out-of-state applicants should belong to the upper one-third of the available pool, according to the achievement indices described above.

**Taking Required Tests**

All applicants who have not completed a full year of college work are required to take the College Entrance Examination Board (CEEB), Scholastic Aptitude Test (SAT), or the ACT® Assessment test (ACT®). Students who desire early admission are encouraged to take the college entrance tests in the spring of their junior year. This requirement is waived for students who have been out of high school for three or more years.

**NOTE:** Purdue University classes are typically offered only once a year. Most required IU South Bend classes are offered every semester.

**ELECTRICAL ENGINEERING TECHNOLOGY**

**BACHELOR OF SCIENCE**

The Electrical Engineering Technology (EET) degree program combines courses in electricity, electronics, mathematics, science, the humanities, and social sciences. The basic curriculum provides EET students with sufficient education to find employment in the fields of communications electronics, industrial electronics, microwaves, military electronics, computer electronics, automation, industrial controls, electronic servicing, television, electrical power, aviation electronics, and others. A considerable amount of laboratory work is required.

**PROGRAM REQUIREMENTS**

*(All courses are 3 credit hours, unless otherwise designated.)*

**FIRST YEAR (31 CR.)**

*First Semester*

<table>
<thead>
<tr>
<th>Course</th>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>*ECET</td>
<td>10700</td>
<td>Introduction to Circuit Analysis (4 cr.)</td>
</tr>
<tr>
<td>*ECET</td>
<td>10900</td>
<td>Digital Fundamentals</td>
</tr>
<tr>
<td>*ECET</td>
<td>19600</td>
<td>Introduction to ECET and Projects (2 cr.)</td>
</tr>
<tr>
<td>+ENG-W</td>
<td>131</td>
<td>Elementary Composition I</td>
</tr>
<tr>
<td>+MATH-M</td>
<td>125</td>
<td>Precalculus Mathematics</td>
</tr>
</tbody>
</table>

* = Purdue University course number
+ = IU South Bend course number

* = Purdue University course number
+ = IU South Bend course number

**Second Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>+CSCI-C</td>
<td>101</td>
<td>Computer Programming I (4 cr.)</td>
</tr>
<tr>
<td>*ECET</td>
<td>15700</td>
<td>Electronics Circuit Analysis (4 cr.)</td>
</tr>
<tr>
<td>*ECET</td>
<td>15900</td>
<td>Digital Applications (4 cr.)</td>
</tr>
<tr>
<td>+MATH-M</td>
<td>126</td>
<td>Trigonometric Functions (2 cr.)</td>
</tr>
<tr>
<td>+SPCH-S</td>
<td>121</td>
<td>Public Speaking</td>
</tr>
</tbody>
</table>

* = Purdue University course number
+ = IU South Bend course number
SECOND YEAR (34 CR.)

Third Semester
*ECET 20700 AC Electronics Circuit Analysis (4 cr.)
*ECET 20900 Introduction to Microcontrollers (4 cr.)
+MATH-M 119 Brief Survey of Calculus 1
+PHYS-P 221 Physics 1 (5 cr.)
+Humanities or social science elective

Fourth Semester
*ECET 23100 Electrical Power and Control (4 cr.)
*ECET 25700 Power and RF Electronics (4 cr.)
*ECET 29700 Electronic Prototype Development (4 cr.)
+MATH-M 120 Brief Survey of Calculus 2

THIRD YEAR (33 CR.)

Fifth Semester
*ECET 30400 Introduction to Communication Systems (4 cr.)
*ECET 30700 Analog Network Signal Processing (4 cr.)
*ECET elective (4 cr.)
+Humanities or social science elective

Sixth Semester
*ECET 39600 Project Development and Management (4 cr.)
*ECET elective (4 cr.)
*ECET elective (4 cr.)
*+ Technical Report Writing
+MATH-K 310 Statistical Techniques

FOURTH YEAR (28 CR.)

Seventh Semester
*ECET 48000 Professional Issues in ECET (1 cr.)
*ECET 49600 Project Design and Development I (1 cr.)
*ECET elective (4 cr.)
+Science selective (5 cr.)
+Selective
+Communication selective

Eighth Semester
*ECET 49700 Project Design and Development II (1 cr.)
+Selective
+Free elective
+Humanities or social science elective
+Humanities or social science elective
*CAND 99100 (0 cr.)

ENGINEERING TECHNOLOGY

BACHELOR OF SCIENCE

The Engineering Technology (ET) degree program is geared toward application of ideas and theories and innovation. It is based on the foundation of science, technology, engineering, and mathematics (STEM). This degree program provides students with a broad range of exciting experiences in: computer graphics technology; computer and information technology; electrical engineering technology; industrial technology; mechanical engineering technology; and organizational leadership and supervision.

The United States Department of Education recognizes ET as a field that is primarily focused on engineering values and ideas, along with the technical skills necessary for typical engineering development projects. ET involves functions for research, production, operations, and programs that are designed for specific engineering fields.

Engineering technologists can use their education and application of STEM, for example, to help make and/or manage the production and related processes of roads/bridges, buildings, power distribution systems, racing teams, computers, software, electronic instruments, environment, and transportation systems that are used daily.

The ET graduate is prepared to immediately begin technical assignments, since many technology programs stress current industrial practices and design procedures. The ET graduate can apply established procedures which utilize current state-of-the-industry practice. The ET graduate is more likely to get hands-on jobs in technical sales, as a team leader, working in a laboratory, or field position.
Graduates work for companies across the technological, construction, distribution, health care, and engineering spectrum; but they are best suited to areas that deal with application, production, implementation, engineering operation, sales, and distribution, as opposed to the conceptual design and research functions performed by typical engineering graduates.

Entry-level positions in product design, testing, development, systems engineering, field engineering or production, technical operations, and quality control are all common positions for ET graduates. Graduates are eligible to become registered professional engineers in most states, with wide variation in the qualification requirements.

PROGRAM REQUIREMENTS
(All courses are 3 credit hours, unless otherwise designated.)

FIRST YEAR (32 CR.)
First Semester
*TECH 10500 Introduction to Engineering Technology
*CGT 11000 Technical Graphics Communications
+MATH-M 115 Precalculus and Trigonometry (5 cr.)
*OLS 25200 Human Behavior in Organizations

Select one of the following:
*MET 14300 Materials and Processes I
*MET 14400 Materials and Processes II

Second Semester
+ENG-W 131 Elementary Composition I
+SPCH-S 121 Public Speaking
+MATH-M 119 Brief Survey of Calculus 1
*MET 11100 Applied Statics
*CNIT 15500 Introduction to Object-Oriented Programming

SECOND YEAR (35 CR.)
Third Semester
*CNIT 17600 Information Technology Architecture
*CGT 22600 Introduction to Constraint-Based Modeling
*MET 24500 Manufacturing Systems
+PHYS-P 221 Physics 1 (5 cr.)
*+Humanities or liberal arts electives

Fourth Semester
*IT 21400 Introduction to Lean Manufacturing

*ECET core selective
*+Economics
+Laboratory Science selective (5 cr.)
*Technical selective

THIRD YEAR (30 CR.)
Fifth Semester
*+COMM selective
*ECET Core selective
*IT 34200 Introduction to Statistical Quality
*+Humanities or liberal arts electives
*Technical elective

Sixth Semester
*IT 44600 Six Sigma Quality
*+Technical Report Writing
*OLS 28400 Leadership Principles
*+Free elective
*Technical elective

FOURTH YEAR (31 CR.)
Seventh Semester
*IT 45000 Production Cost Analysis
*OLS 45000 Project Management for Organizational and Human Resource Development
*TECH 49600 Senior Design Project Proposal (1 cr.)
*+Free elective
*Technical elective

Eighth Semester
*TECH 49700 Senior Design Project (2 cr.)
*Technical selective
*Technical selective
*+Humanities or liberal arts electives
*+Free elective
*CAND 99100 (0 cr.)

INDUSTRIAL TECHNOLOGY

BACHELOR OF SCIENCE

Industrial Technology (IT) is an academic discipline that integrates technological and managerial sciences. As such, the IT curriculum is a management-oriented technical curriculum built upon a balanced program of studies drawn from a variety of disciplines related to manufacturing technology. Included is a sound knowledge and understanding of materials and production processes, supply chain management, physical sciences, mathematics, statistics, automation, lean concepts, communications, and other relevant technical skills that permit the graduate to resolve technical-managerial and manufacturing production problems.

Given the high concentration of manufacturing companies and related employment opportunities in Michiana, local delivery of Purdue’s IT degree helps to fill the area’s demand for educated technologists. Entry-level position titles include: facilities planner, industrial engineer, industrial trainer, manufacturing

* = Purdue University course number
+ = IU South Bend course number
engineer, product manager, production supervisor, quality assurance engineer, safety systems specialist, sales engineer, statistical process control specialist, and technical manager.

In addition to the technical core, the program contains several technical and general electives. This flexibility makes the program very accommodating to individuals with some college or an associate degree wishing to earn a Purdue University degree in technology. Students with no prior postsecondary experience find the broad treatment of technical topics appealing.

**PROGRAM REQUIREMENTS**

*(All courses are 3 credit hours, unless otherwise designated.)*

**FIRST YEAR (32 CR.)**

<table>
<thead>
<tr>
<th>First Semester</th>
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</thead>
<tbody>
<tr>
<td>*IT 10400</td>
<td>Industrial Organization</td>
<td></td>
</tr>
<tr>
<td>*CGT 11000</td>
<td>Technical Graphics</td>
<td></td>
</tr>
<tr>
<td>*MET 14300</td>
<td>Materials and Processes I</td>
<td></td>
</tr>
<tr>
<td>+ENG-W 131</td>
<td>Elementary Composition 1</td>
<td></td>
</tr>
<tr>
<td>+MATH-M 115</td>
<td>Precalculus and Trigonometry (5 cr.)</td>
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<table>
<thead>
<tr>
<th>Second Semester</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>*IT 21400</td>
<td>Introduction to Lean Manufacturing</td>
<td></td>
</tr>
<tr>
<td>*CNIT 13600</td>
<td>Personal Computing Technology and Applications</td>
<td></td>
</tr>
<tr>
<td>*Mathematics or computing selective</td>
<td></td>
<td></td>
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<tr>
<td>+SPCH-S 121</td>
<td>Public Speaking</td>
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</tbody>
</table>

Select one of the following:

* +Technical Report Writing
* +ENG-W 231 Professional Writing Skills

**SECOND YEAR (32 CR.)**

<table>
<thead>
<tr>
<th>Third Semester</th>
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</thead>
<tbody>
<tr>
<td>*MET 24500</td>
<td>Manufacturing Systems</td>
<td></td>
</tr>
<tr>
<td>+Humanities or social science elective</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*ECET 21400</td>
<td>Electricity Fundamentals</td>
<td></td>
</tr>
<tr>
<td>*PHYS-P 221</td>
<td>General Physics 1 (5 cr.)</td>
<td></td>
</tr>
</tbody>
</table>

Select one of the following:

* IT 28100 Industrial Safety
* IT 35100 Advanced Industrial Safety and Health Management

<table>
<thead>
<tr>
<th>Fourth Semester</th>
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</thead>
<tbody>
<tr>
<td>*IT 23000</td>
<td>Industrial Supply Chain Management</td>
<td></td>
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<tr>
<td>*Technical elective</td>
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<td></td>
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<tr>
<td>*+General elective</td>
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</tbody>
</table>

Select one of the following:

* ECON-E 103 Introduction to Microeconomics
* ECON-E 104 Introduction to Macroeconomics
* +General elective

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**THIRD YEAR (31 CR.)**

<table>
<thead>
<tr>
<th>Fifth Semester</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>*IT 34200</td>
<td>Introduction to Statistical Quality</td>
<td></td>
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<tr>
<td>*MFET 30000</td>
<td>Application of Automation in Manufacturing</td>
<td></td>
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<tr>
<td>*Technical elective</td>
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<tr>
<td>*Technical elective</td>
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<tr>
<td>+Communications elective</td>
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<thead>
<tr>
<th>Sixth Semester</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>*IT 38500</td>
<td>Industrial Ergonomics</td>
<td></td>
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<tr>
<td>*Technical elective (300-level or above)</td>
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<tr>
<td>*Technical elective (300-level or above)</td>
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<td></td>
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<tr>
<td>+Science selective (3-5 cr.)</td>
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<tr>
<td>*+General elective</td>
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**FOURTH YEAR (30 CR.)**

<table>
<thead>
<tr>
<th>Seventh Semester</th>
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</thead>
<tbody>
<tr>
<td>*IT 44200</td>
<td>Production Planning</td>
<td></td>
</tr>
<tr>
<td>*IT 45000</td>
<td>Production Cost Analysis</td>
<td></td>
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<tr>
<td>*Technical elective (300-level or above)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>+Science selective (3-5 cr.)</td>
<td></td>
<td></td>
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<tr>
<td>*+General elective</td>
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<thead>
<tr>
<th>Eighth Semester</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>*IT 48300</td>
<td>Facility Design for Lean Manufacturing</td>
<td></td>
</tr>
<tr>
<td>*CAND 99100</td>
<td>Candidate</td>
<td></td>
</tr>
<tr>
<td>*Technical elective (300-level or above)</td>
<td></td>
<td></td>
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<tr>
<td>*Technical elective (300-level or above)</td>
<td></td>
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<tr>
<td>*+General elective</td>
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<td></td>
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<tr>
<td>*+Mathematics or computing selective</td>
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</tbody>
</table>

**CERTIFICATE**

Students may complete the certificate program by satisfactorily completing all courses listed with a grade of C or higher. Transfer credit applied to the certificate is limited to no more than 6 credit hours.

**Foundation (6 cr.)**

* IT 10400 Industrial Organization
* IT 21400 Introduction to Lean Manufacturing

**Broadening (6 cr.)**

* IT 23000 Industrial Supply Chain Management

Select one of the following:

* IT 28100 Industrial Safety
* IT 35100 Advanced Industrial Safety and Health Management

---

* = Purdue University course number
+ = IU South Bend course number
MECHANICAL ENGINEERING TECHNOLOGY

ASSOCIATE OF SCIENCE

Mechanical Engineering Technology (MET) concerns the generation, transmission, and utilization of mechanical and fluid energy, knowledge of materials, and the design and production of tools and machines and their products.

The purpose of the MET degree program is to produce graduates qualified to accept jobs such as laboratory technicians, engineering aides, plant maintenance people, layout persons, production assistants, and technical salespersons. With additional experience, promotion to positions such as industrial supervisors, machine and tool designers, technical buyers, production expediters, and cost estimators is possible. Courses in the MET degree program are also very valuable in the upgrade or retraining of adults now in the work force. Students who complete an associate degree in MET may continue for a Bachelor of Science in Industrial Technology (IT) or Engineering Technology (ET) at the South Bend location.

PROGRAM REQUIREMENTS
(All courses are 3 credit hours, unless otherwise designated.)

FIRST YEAR (34 CR.)

First Semester
- *CGT 11000 Technical Graphics Communications
- *MET 14300 Materials and Processes
- *MET 16000 Analytical and Computational Tools in MET
- +ENG-W 131 Elementary Composition 1
- +MATH-M 115 Precalculus and Trigonometry (5 cr.)

Second Semester
- *MET 11000 Production Design and Specifications
- *MET 11100 Applied Statistics

SECOND YEAR (32 CR.)

Third Semester
- *ECET 21400 Electricity Fundamentals
- *MET 21100 Applied Strength of Materials (4 cr.)
- *MET 21300 Dynamics
- *MET 24500 Manufacturing Systems
- +PHYS-P 222 Physics 2 (5 cr.)

Fourth Semester
- *MET 21400 Machine Elements
- *MET 22000 Heat and Power
- *MET 23000 Fluid Power
- *+Humanities or social science elective
- +SPCH-S 121 Public Speaking
- *CAND 99100 Candidate (0 cr.)

ORGANIZATIONAL LEADERSHIP AND SUPERVISION

The primary objective of the Organizational Leadership and Supervision (OLS) degree program is the education and development of graduates who are career-ready for leadership roles in business, industry, and service agencies. It is a highly individualized, practical, people-oriented approach to the practice of supervision. The curriculum is designed to provide the necessary supervisory skills with a broad range of technical knowledge. This enables students to acquire the expertise they need to function effectively in a high-technology society.

Graduates are employed in various leadership positions in areas such as supervision, production control, quality control, process engineering, customer service, training and development, human resources management, technical sales, general management, and the military services.

* = Purdue University course number
+ = IU South Bend course number
CERTIFICATE

The OLS certificate consists of nine courses, 27 credit hours, selected from the list below. The certificate program is only available through registration at one of the statewide College of Technology sites. Courses completed for the certificate can be counted toward the associate and bachelor’s degrees.

<table>
<thead>
<tr>
<th>Phase I—Foundation (required courses)</th>
</tr>
</thead>
<tbody>
<tr>
<td>*OLS 25200 Human Behavior in Organizations</td>
</tr>
<tr>
<td>*OLS 27400 Applied Leadership</td>
</tr>
<tr>
<td>*OLS 28400 Leadership Principles</td>
</tr>
<tr>
<td>+ENG-W 131 Elementary Composition 1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Phase II—Core</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select two of the following:</td>
</tr>
<tr>
<td>*OLS 32500 Meeting Management</td>
</tr>
<tr>
<td>*OLS 34500 Critical Thinking in Organizations</td>
</tr>
<tr>
<td>*OLS 37600 Human Resource Issues</td>
</tr>
<tr>
<td>*OLS 38600 Leadership for Organizational Change</td>
</tr>
<tr>
<td>*OLS 38800 Leadership Through Teams</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Phase III—Specialty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select three of the following:</td>
</tr>
<tr>
<td>*OLS 44000 Leading with Integrity</td>
</tr>
<tr>
<td>*OLS 45000 Project Management for Organizational and Human Resource Development</td>
</tr>
</tbody>
</table>

BACHELOR OF SCIENCE

The Bachelor of Science degree program is designed to fill the needs for further education for the following: those who have the associate degree; those who want to advance their knowledge and skills in the field of supervision; and those who desire academic work in supervision to make them more employable. This program is designed to prepare students for careers in supervisory management, personnel work, and employee training and development.

PROGRAM REQUIREMENTS

(All courses are 3 credit hours, unless otherwise designated.)

FIRST YEAR (32 CR.)

First Semester

<table>
<thead>
<tr>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>*OLS 25200 Human Behavior in Organizations</td>
</tr>
<tr>
<td>+Free elective</td>
</tr>
<tr>
<td>*OLS 34500 Critical Thinking in Organizations</td>
</tr>
<tr>
<td>+PSY-P 103 General Psychology</td>
</tr>
<tr>
<td>+SPCH-S 121 Public Speaking</td>
</tr>
</tbody>
</table>

Second Semester

<table>
<thead>
<tr>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>*OLS 27400 Applied Leadership</td>
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<tr>
<td>*OLS 28400 Leadership Principles</td>
</tr>
<tr>
<td>*OLS 32500 Meeting Management</td>
</tr>
<tr>
<td>*CNIT 13600 Personal Computing Technology and Applications</td>
</tr>
<tr>
<td>+PSY-P 103 General Psychology</td>
</tr>
</tbody>
</table>

SOPHOMORE YEAR (30 CR.)

Third Semester

<table>
<thead>
<tr>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>*OLS 38600 Leadership for Organizational Change</td>
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<tr>
<td>+Laboratory science elective (5 cr.)</td>
</tr>
<tr>
<td>+SOC-S 161 Principles of Sociology</td>
</tr>
<tr>
<td>+OLS 38800 Leadership Through Teams</td>
</tr>
<tr>
<td>+ECON-E 103 Introduction to Microeconomics</td>
</tr>
<tr>
<td>+ECON-E 104 Introduction to Macroeconomics</td>
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</tbody>
</table>

* = Purdue University course number
+ = IU South Bend course number
Fourth Semester
*OLS 34500 Critical Thinking in Organizations
*OLS 37600 Human Resource Issues
Select one of the following:
+PSY-P 354 Statistical Analysis in Psychology
+SOC-S 351 Social Statistics
* Statistics
*+Free elective
*Technical elective

JUNIOR YEAR (30 CR.)
Fifth Semester
*OLS 47700 Conflict Management
*OLS selective
*OLS experiential requirement
*Technical elective
+BUS-A 201 Introduction to Financial Accounting
Sixth Semester
*OLS 48400 Leadership Strategies for Quality and Productivity
+BUS-A 202 Introduction to Managerial Accounting
*+Communications selective
*Technical elective
*OLS selective

SENIOR YEAR (30 CR.)
Seventh Semester
*OLS 45600 Leadership in a Global Environment
*OLS 45000 Project Management for Organizational and Human Resource Development
*+Free elective
+English selective
Select one of the following:
+PHIL-P 105 Thinking and Reasoning
*+HIST selective
*+POLS selective
Eighth Semester
*OLS 44000 Leading with Integrity
*OLS selective
*+ Technical Report Writing
*Technical elective
*Technical elective
*CAND 99100 Candidate (0 cr.)