### Major: Industrial Engineering Technology (IET)

**IET-BS Suggested Arrangement of Courses**

<table>
<thead>
<tr>
<th>Fall 1st Year</th>
<th>CR</th>
<th>GR</th>
<th>Fulfilled by</th>
<th>Spring 1st Year</th>
<th>CR</th>
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<tbody>
<tr>
<td>ENGT 18000 Engineering Tech Foundations</td>
<td>3</td>
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<td></td>
<td>TLI 11200 Foundations of Org Leadership</td>
<td>3</td>
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<tr>
<td>ENGT 18100 Engineering Tech Applications</td>
<td>1</td>
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<td>Computer Programming Selective</td>
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<tr>
<td>TECH 12000 Design Thinking in Technology*</td>
<td>3</td>
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<td></td>
<td>Materials &amp; Processes Selective</td>
<td>3</td>
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<tr>
<td>Oral Communications Selective*</td>
<td>3</td>
<td></td>
<td></td>
<td>Written Communication Selective*</td>
<td>3</td>
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<tr>
<td>Mathematics Selective*</td>
<td>3</td>
<td></td>
<td></td>
<td>Free Elective</td>
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<tr>
<td>Humanities Selective*</td>
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<th>Fall 2nd Year</th>
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<tbody>
<tr>
<td>TLI 21300 Project Management</td>
<td>3</td>
<td></td>
<td></td>
<td>TLI 31600 Statistical Quality Control Pre-req: MA 15800</td>
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<tr>
<td>TLI 21400 Intro to Supply Chain Management Technology</td>
<td>3</td>
<td></td>
<td></td>
<td>Lab Science Selective*</td>
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<tr>
<td>PHYS 22000 General Physics*</td>
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<td>TLI 33520 Human Factors for Technology System</td>
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<tr>
<td>ECET 22400 Electronic Systems Pre-req: MA 15300</td>
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<td></td>
<td></td>
<td>ECON 21000 Principles of Economics or ECON E201 or ECON E202</td>
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<tr>
<td>STAT 30100 Elementary Statistical Methods</td>
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<td>TLI 43630 Design of Experiments</td>
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<tr>
<td>Manufacturing Automation Selective</td>
<td>3</td>
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<td>Technical Elective</td>
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<tr>
<td>MET 24500 Manufacturing Systems Pre-req: Materials Select &amp; Tech Graph Select</td>
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<td>TLI 43530 Operations Planning &amp; Management Pre-req: MA 15800</td>
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<td>TLI 33620 Total Productive Maintenance Pre-req: PHYS 22000 &amp; (TLI 31600 or STAT 30100)</td>
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<td>TLI 43640 Lean Six Sigma Pre-req: TLI 31600</td>
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<tr>
<td>Advanced Written Communication Selective</td>
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<td>Advanced Oral Communication</td>
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<tr>
<td>TLI 48390 IET Capstone I Problem Identification and Analysis Pre-req: TLI 43530 &amp; MET 24500 &amp; TLI 43640</td>
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<td>TLI 48395 IET Capstone II Project Design Pre-req: TLI 48390</td>
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<tr>
<td>TLI 43540 Facilities Plan &amp; Material Handling Pre-req: Materials Select &amp; TLI 43530</td>
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<td>TLI 31300 Technology Innovation &amp; Integration: Bar Codes to Biometrics</td>
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<tr>
<td>TLI 33400 Economic Analysis for Tech Systems Pre-req: MA 15800 or STAT 30100</td>
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<td>Technical Elective</td>
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<td>Behavioral/Social Science Selective*</td>
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<tr>
<td>Free Elective</td>
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<td><strong>TOTAL CREDIT HOURS</strong></td>
<td>14</td>
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</table>

*Fulfills University Core

1) 2.0 Graduation GPA required for Bachelor of Science degree.
2) 32 credits of upper division courses (30000 level or higher) must be taken at Purdue University.
3) ANY COURSE TAKEN AT PURDUE CAN BE ATTEMPTED NO MORE THAN THREE TIMES (INCLUSIVE OF W, WF, I AND IF).
4) Courses in BOLD are considered critical and is a course that must be passed in order to persist and succeed in the CIT major.

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The student is ultimately responsible for knowing and completing all degree requirements. myPurduePlan is the knowledge source for specific requirements and completion.
All prerequisites must be met

**Behavioral/Social Science Elective**
Must be a Behavioral Social Science course from the approved UCC list: [http://www.purdue.edu/provost/initiatives/curriculum/course.html](http://www.purdue.edu/provost/initiatives/curriculum/course.html)

**Humanities Elective**
Must be a Humanities course from the approved UCC list: [http://www.purdue.edu/provost/initiatives/curriculum/course.html](http://www.purdue.edu/provost/initiatives/curriculum/course.html)

**Materials & Processes Selective**
- MET 14300 Materials & Processes I
- MET 14400 Materials & Processes II

**Mathematics Selective**
- MA 15800 Precalculus – Functions and Trigonometry
- MA 16010 Applied Calculus I
- MA 16100 Plane Analytic Geometry & Calculus I
- MA 16200 Plane Analytic Geometry & Calculus II
- MA 16500 Analytic Geometry & Calculus I
- MA 16600 Analytic Geometry & Calculus II

**Oral Communication Selective**
- COM 11400 Fundamentals of Speech Comm
- SCLA 10200 Transformative Texts, Critical Thinking & Comm II: Modern World

**Written Communication Selective**
- ENGL 10600 First-Year Composition
- ENGL 10800 Accelerated First-Year Composition
- SCLA 10100 Transformative Texts, Critical Thinking & Comm I: Antiquity To Modernity

**Computer Programming Selective**
- CNIT 10500 Introduction to C Programming
- CNIT 15501 Introduction to Software Development Concepts
- CNIT 17500 Visual Programming
- CS 15800 C Programming
- CS 15900 C Programming
- CS 17700 Programming with Multimedia Objects
- CS 18000 Problem Solving and Object-Oriented Programming
- MET 16400 Computing in Engineering Technology

**History of Science and Technology Selective**
- HIST 30305 Food in Modern America
- HIST 30605 Technology & War in US
- HIST 31405 STEM & Gender in American History
- HIST 31505 American Beauty
- HIST 33000 History of the Brit Empire & Commonwealth, 1783 To 1960
- HIST 33400 Sci & Society in West Civ II
- HIST 38001 History of United States
- Agriculture
- HIST 38400 History of Aviation
- HIST 38700 History of The Space Age
- POL 42900 Contemporary Political Problems
- TLI 29900 Technology & Culture through History

**Lab Science Selective**
Must be a lab from the approved UCC Science list: [http://www.purdue.edu/provost/initiatives/curriculum/course.html](http://www.purdue.edu/provost/initiatives/curriculum/course.html)

**Technical Graphics Selective**
- CGT 11000 Technical Graphics Communications
- CGT 16300 Graphical Communication & Spatial Analysis
- IT 10500 Industrial Technology Introduction to Design
2019
Columbus IET Supplemental Information
All prerequisites must be met

**Advanced Oral Communication Selective**
- COM 31400 Advanced Presentational Speaking
- COM 31500 Speech Comm of Tech Information
- COM 31800 Principles of Persuasion
- **COM 32000 Small Group Communication**
  - COM 32400 Introduction to Org Communication
- COM 32500 Interviewing: Principles & Practice
- COM 41500 Discussion of Tech Problems
- COM 43500 Comm & Emerging Tech
  - *COMM R321 Persuasion*
  - *COMM C322 Advanced Interpersonal Communication*
  - *COMM C325 Interviewing Principles & Practices*
  - *COMM 380 Organization Communication*

**Advanced Written Communication Selective**
- ENGL 30400 Advanced Composition
- ENGL 30600 Introduction to Professional Writing
- ENGL 41900 Multimedia Writing
- ENGL 42000 Business Writing
- **ENGL 42100 Technical Writing**
  - ENGL 42400 Writing for High Technology Industries

**Manufacturing Automation Selective**
- MET 28400 Intro to Industrial Controls
- MFET 30000 Applications of Automation in Manufacturing
- MFET 34400 Automated Manufacturing Processes

**Free Elective**
- Any non-remedial course

**Technical Elective**
- Any non-required Polytechnic Institute or Engineering (ENGR) course not already required on the plan of study

- ENTR 20000 Introduction to Entrepreneurship & Innovation
- ENTR 31000 Marketing and Management for New Ventures
- ENTR 31500 Business Planning for Social Entrepreneurship

11 April 19 (effective Fall 2019)
Professional Requirement
The SOET Professional Experience requirement is intended to document those experiences which help expose SOET students to the expectations of their profession prior to graduation. This may occur through industrial experience, technical or administrative involvement with community service, military service, et cetera. Approval has been granted for the following experiences. Additional experiences may also satisfy this graduation requirement. Requests for approval should be submitted to the SOET Curriculum Subcommittee Chair for consideration, allowing at least four academic weeks for review and response.

### Table 1: Approved Professional Experiences

<table>
<thead>
<tr>
<th>Approval by</th>
<th>Experience</th>
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</thead>
<tbody>
<tr>
<td>Automatic</td>
<td>Any TECH Professional Practice course (co-op, intern, etc.)</td>
</tr>
<tr>
<td>Automatic</td>
<td>MET 29900 Internship for Credit</td>
</tr>
<tr>
<td>Automatic</td>
<td>Industry-sponsored senior capstone</td>
</tr>
<tr>
<td>Automatic</td>
<td>EPICS courses, minimum of two</td>
</tr>
<tr>
<td>Automatic</td>
<td>Lab Assistant (satisfactory completion of a minimum of one lab division for one term; e.g., ECET 29900 or MET 39200)</td>
</tr>
<tr>
<td>Advisor</td>
<td>Any approved internship (assuming student and/or employer provide documentation)</td>
</tr>
<tr>
<td>Advisor</td>
<td>Military service (ROTC, reservist, active duty, veteran)</td>
</tr>
<tr>
<td>Faculty</td>
<td>Other undergraduate research experiences (e.g., employed in the AEL as lab technician)</td>
</tr>
<tr>
<td>Faculty</td>
<td>Independent study – by petition to ensure the project meets the spirit of the requirement</td>
</tr>
<tr>
<td>Faculty</td>
<td>Professional society/club activities (e.g., led the Solar Racing team) - by petition</td>
</tr>
<tr>
<td>Faculty</td>
<td>Any approved employment</td>
</tr>
</tbody>
</table>

*Approval Key:
- Automatic – student participation in this professional experience is already documented through existing means.
- Advisor – advisor reviews student’s experience to determine if it meets the spirit of the Professional Experience requirement.
- Faculty – designated committee reviews student’s experience to determine if it meets the spirit of the Professional Experience requirement.

Global/Intercultural Requirement

**Polytechnic minimum global requirement**

**Step 1:** ___ Complete the Pre-test Intercultural Development Inventory Assessments (1st year)

**Step 2** __ Complete one (1) of the following global experiences:*  
- Participate in a Purdue University International capstone, collaborative project, or  
- Participate in an international internship (International location), or  
- Participate in Faculty-led Study Abroad program, or  
- Complete 3 credit hours from the Polytechnic list of recommended Global/Cultural courses.

**Step 3:** ___ Complete the Post-test Intercultural Development Inventory Assessments (4th year)

NOTE FOR TRANSFER/CODO STUDENTS: Transfer and CODO students with less than 75 credit hours remaining to complete their Polytechnic Plan of Study are exempt from Step 1 (taking the IDI Pre-test).

* Global experiences must take place during the time of enrollment in the Polytechnic to complete Step 2. Experiences that have taken place prior to a student’s initial enrollment will not serve to complete Step 2. Intercultural competencies gained on experiences prior to Polytechnic enrollment will be captured as baseline data on a student’s IDI.

Visit purdue.edu/Columbus > Graduation Requirements for Polytechnic list of recommended Global/Cultural courses.

11 April 19 (effective Fall 2019)