

Columbus

R Major: Industrial Engineering Technology (IET) NIVERSITY IET-BS Suggested Arrangement of Courses

Name:		
Catalog Term:	PUID:	

For Catalog Terms beginning in Fall 2019 Major Code: TIET Program Code: PI-TLI-IET-BS

Fall 1 st Year	CR	GR	Fulfilled by	Spring 1st Year	CR	GR	Fulfilled by
ENGT 18000 Engineering Tech Foundations	3			TLI 11200 Foundations of Org Leadership	3		
ENGT 18100 Engineering Tech Applications	1			Computer Programming Selective	3		
TECH 12000 Design Thinking in Technology*	3			Materials & Processes Selective	3		
Oral Communications Selective*	3			Written Communication Selective*	3		
Mathematics Selective*	3			Free Flooring	2		
Humanities Selective*	3			Free Elective	3		
TOTAL CREDIT HOURS	16			TOTAL CREDIT HOURS	15		

Fall 2 nd Year	CR	GR	Fulfilled by	Spring 2 nd Year	CR	GR	Fulfilled by
TLI 21300 Project Management	3			TLI 31600 Statistical Quality Control Pre-req: MA 15800	3		
TLI 21400 Intro to Supply Chain Management Technology	3			Lab Science Selective*	3		
PHYS 22000 General Physics*	4			TLI 33520 Human Factors for Technology System	3		
ECET 22400 Electronic Systems Pre-req: MA 15300	3			ECON 21000 Principles of Economics or ECON E201 or ECON E202	3		
Technical Graphics Selective CGT 11000 Technical Graphics Communication	2			History of Science & Technology Selective	3		
TOTAL CREDIT HOURS	15			TOTAL CREDIT HOURS	15		

Fall 3 rd Year	CR	GR	Fulfilled by	Spring 3 rd Year	CR	GR	Fulfilled by
STAT 30100 Elementary Statistical Methods	3			TLI 43630 Design of Experiments	3		
Manufacturing Automation Selective	3			Technical Elective	3		
MET 24500 Manufacturing Systems Pre-req: Materials Select & Tech Graph Select	3			TLI 43530 Operations Planning & Management Pre-req: MA 15800	3		
TLI 33620 Total Productive Maintenance Pre-req: PHYS 22000 & (TLI 31600 or STAT 30100)	3			TLI 43640 Lean Six Sigma Pre-req: TLI 31600	3		
Advanced Written Communication Selective	3			Advanced Oral Communication	3		
TOTAL CREDIT HOURS	15			TOTAL CREDIT HOURS	15		

Fall 4 th Year	CR	GR	Fulfilled by	Spring 4 th Year	CR	GR	Fulfilled by
TLI 48390 IET Capstone I Problem Identification and Analysis Pre-req: TLI 43530 & MET 24500 & TLI 43640	3			TLI 48395 IET Capstone II Project Design Pre-req: TLI 48390	3		
TLI 43540 Facilities Plan & Material Handling Pre-req: Materials Select & TLI 43530	3			TLI 31300 Technology Innovation & Integration: Bar Codes to Biometrics	3		
TLI 33400 Economic Analysis for Tech Systems Pre-req: MA 15800 or STAT 30100	3			Technical Elective	3		
Technical Elective	3			Behavioral/Social Science Selective*	3		
Free Elective	3			Free Elective	2		
Professional Requirement	0			Global/Intercultural Requirement	0		
TOTAL CREDIT HOURS	15			TOTAL CREDIT HOURS	14		

*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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Columbus IET Supplemental Information

All prerequisites must be met

Bold Indicates courses offered at Columbus location.

*Indicates IUPUC course for Columbus location only.

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

Humanities Elective

Must be a Humanities course from the approved UCC list: 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 History

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

Technical Graphics Selective

CGT 11000 Technical Graphics Communications

CGT 16300 Graphical Communication & Spatial Analysis

IT 10500 Industrial Technology Introduction to Design

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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

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Columbus IET Supplemental Information

All prerequisites must be met

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

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

^{*}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
	o Participate in Faculty-led Study Abroad program, or
	o Participate in a full semester abroad program, or
	o Complete 3 credit hours from the Polytechnic list of recommended Global/ Cultural courses.
Step 3:	Complete the Post-test Intercultural Development Inventory Assessments (4 th 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.