PURDUE UNIVERSITY

School of Engineering Technology
ET-BS Suggested Arrangement of Courses
Major: Engineering Technology (ET)
Concentration: Technology Integration TINT

Name: _____

Catalog Term: _____   PUID: _____

For Catalog Terms beginning in Fall 2022

Major Code: ENGT   Concentration Code: TINT   Program Code: PI-ET-BS

Fall 1st Year	CR	GR	Sem	Fulfilled by	Spring 1st Year	CR	GR	Sem	Fulfilled by
TECH 12000 Design Thinking in Tech*	3				MA 16010 Applied Calculus I*	3			
Freshman Composition Selective*	3				Freshman Speech Selective*	3			
ENGT 18200 Engineering Technology Gateway	4				MET 11100 Applied Statics	3			
MA 15800 Precalculus –Functions & Trig	3				TLI 11200 Foundations of Organizational Leadership	3			
Computer Graphics Tech Selective	2				MET 14300 Materials & Processes I or MET 14400 Materials & Processes II	3			
TOTAL CREDIT HOURS	**15**				**TOTAL CREDIT HOURS**	**15**			

Fall 2nd Year	CR	GR	Sem	Fulfilled by	Spring 2nd Year	CR	GR	Sem	Fulfilled by
ECET Selective	3				ECON 21000 Principles of Economics*	3			
IET 21400 Intro to Supply Chain Systems	3				ECET Selective	3			
MET 21100 Applied Strength of Materials (P: MET 11100 and MA 16010)	4				IET 31600 Statistical Quality Control or STAT 30100 Elem Statistical Methods	3			
PHYS 22000 General Physics I*	4				Computer-Aided Design Selective	3			
					Lab Science Foundation*	4			
TOTAL CREDIT HOURS	**14**				**TOTAL CREDIT HOURS**	**16**			

Fall 3rd Year	CR	GR	Sem	Fulfilled by	Spring 3rd Year	CR	GR	Sem	Fulfilled by
MET 24500 Manufacturing Systems	3				Global/Professional Selective	3			
Programming Selective	3				Humanities Foundation Selective*	3			
Technical Selective	3				Technical Selective (3XXXX or higher)	3			
Technical Selective	3				Technical Selective (3XXXX or higher)	3			
Free Elective	3				Advanced Oral Communication Selective	3			
TOTAL CREDIT HOURS	**15**				**TOTAL CREDIT HOURS**	**15**			

Fall 4th Year	CR	GR	Sem	Fulfilled by	Spring 4th Year	CR	GR	Sem	Fulfilled by
Senior Capstone Project Selective	3				Senior Capstone Project Selective	3			
IET 33400 Economic Analysis for Tech Systems or IT 45000 Production Cost Analysis (P: MA 15800)	3				Technical Selective (3XXXX or higher)	3			
Technical Selective (3XXXX or higher)	3				Technical Selective	3			
Technical Selective (3XXXX or higher)	3				Free Elective	3			
Technical Writing Selective*	3				Humanities/Liberal Arts Elective	3			
TOTAL CREDIT HOURS	**15**				**TOTAL CREDIT HOURS**	**15**			

*Fulfills University Core Requirement

1. 120 semester credits and a 2.0 Graduation GPA are required for the Bachelor of Science degree.

2. 2.0 Graduation GPA required for Bachelor of Science degree.

3. 32 credits of upper division courses (30000 level or higher) must be taken at Purdue University.

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

5. Complete a Professional Requirement. ☐   Complete an Intercultural Requirement. ☐

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The student is ultimately responsible for knowing and completing all degree requirements.
Degree Works is knowledge source for specific requirements and completion.
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Updated 4/25/2022

PURDUE UNIVERSITY

Engineering Technology
Purdue Polytechnic Institute Statewide
Concentration in Technology Integration

PITLI-ET-BS
120 Credits for graduation
Fall 2022

Name: _____   PUID: _____   Date: _____

Departmental/Program Major Courses (49 credits)

_____	(2)	Computer Graphics Technology Selective
_____	(3)	Computer-Aided Design Selective
_____	(3)	ECET Selective
_____	(3)	ECET Selective
_____	(4)	ENGT 18200 Engineering Technology Gateway
_____	(3)	Global/Professional Selective
_____	(3)	IET 21400 Introduction to Supply Chain Systems
_____	(3)	IET 31600 Statistical Quality Control **or** STAT 30100 Elementary Statistical Methods
_____	(3)	IET 33400 Economic Analysis for Tech Systems **or** IT 45000 Production Cost Analysis
_____	(3)	MET 11100 Applied Statics
_____	(3)	MET 14300 Materials & Processes I **or** MET 14400 Materials & Processes II
_____	(4)	MET 21100 Applied Strength of Materials
_____	(3)	MET 24500 Manufacturing Systems
_____	(3)	Programming Selective
_____	(3)	Senior Capstone Project Selective I
_____	(3)	Senior Capstone Project Selective II

Other Departmental /Program Course Requirements (34 credits)

_____	(3)	Advanced Oral Communication Selective
_____	(3)	ECON 21000 *(satisfies Human Culture Behavioral/Social Science for core)*
_____	(3)	Freshman Composition Selective *(satisfies Written Communication for core)*
_____	(3)	Freshman Speech Selective *(satisfies Oral Communication for core)*
_____	(3)	Humanities Foundation Selective *(satisfies Human Cultures Humanities for core)*
_____	(3)	MA 15800 – Precalculus – Functions and Trigonometry *(satisfies Quantitative Reasoning for core)*
_____	(3)	MA 16010 - Applied Calculus I
_____	(4)	PHYS 22000 General Physics *(satisfies Science for core)*
_____	(3)	TECH 12000 Design Thinking in Technology (*satisfies Science, Tech, & Society Selective and Information Literacy for core*)
_____	(3)	TLI 11200 Foundation of Organizational Leadership
_____	(3)	Technical Writing Selective
_____	(0)	Intercultural Requirement
_____	(0)	Professional Requirement

CONCENTRATION: Technology Integration (37 credits)

_____	(4)	Lab Science Foundation Selective *(satisfies Science for core)*
_____	(3)	Humanities/Liberal Arts Elective

Technical Selectives (24 credits)
(At least 6 cr. must be in the same discipline & 15 cr. must be 300/400 level, including required major credits)

_____ (3) _____		_____ (3) _____		_____ (3) _____		_____ (3) _____	
_____ (3) _____		_____ (3) _____		_____ (3) _____		_____ (3) _____	

Free Electives (6 credits)

_____ (3) _____		_____ (3) _____

University Core Requirements

Human Cultures: Behavioral/Social Sciences	☐ _____		*Science*	☐ _____
Human Cultures: Humanities	☐ _____		*Science*	☐ _____
Information Literacy	☐ _____		*Science, Technology & Society*	☐ _____
Oral Communication	☐ _____		*Written Communication*	☐ _____
Quantitative Reasoning	☐ _____			

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*** *Updated 04-25-2022*

ET Supplemental Information
All prerequisites must be met.

FRESHMAN COMPOSITION SELECTIVE
ENGL 10600 First-Year Composition
ENGL 10800 Accelerated First Year Composition
SCLA 10100 Transformative Texts, Critical Thinking & Comm I: Antiquity to Modernity

FRESHMAN SPEECH SELECTIVE
COM 11400 Fundamental of Speech Communication
SCLA 10200 Transformative Texts, Critical Thinking & Comm II: Modern World

TECHNICAL WRITING SELECTIVE
ENGL 42100 Technical Writing
ENGL 42400 Writing for High Technology Industries

PROGRAMMING SELECTIVES

CNIT 10500 Introduction to C Programming   CNIT 15501 Introduction to Software Development Concepts
CNIT 17500 Visual Programming   MET 16400 Computing in Engineering Technology

ECET SELECTIVES
Select one two-course sequence from the table below.

ECET 17900 Intro to Digital Systems *(P: ENGT 18200 & CNIT 10500)*	AND	ECET 22400 Electronic Systems
ECET 22400 Electronic Systems	AND	ECET 30201 Introduction to Industrial Controls *(P: ECET 17700 or ECET 22400)*

COMPUTER GRAPHICS TECHNOLOGY SELECTIVE
CGT 11000 Technical Graphics Communication
CGT 16300 Graphical Communication and Spatial Analysis
CGT 10301 Geometric Modeling Applications
ENGT 10500 Industrial Technology Introduction to Design

COMPUTER-AIDED DESIGN SELECTIVES
CGT 22600 Introduction to Constraint-based Modeling
MET 10200 Production Design and Specifications

GLOBAL/PROFESSIONAL SELECTIVES
ECET 38001 Global/Professional Issues in Electrical Engineering Technology
TECH 33000 Technology and the Global Society
TLI 35600 Global Technology Leadership
Approved Study Abroad

ADVANCED ORAL COMMUNICATION SELECTIVE
COM 32000 Small Group Communications
COM 30300 Intercultural Communication OR COM 31400 Adv. Presentational Speaking

TECHNICAL SELECTIVES
At least 15 credit hours must be at the 30000 level or above and at least 6 credit hours must be in the same discipline.

CGT 32300 Virtual Product Integration (P: CGT 22600)
CGT 32600 Graphics Standards for Product Definition (P: CGT 22600)
ECET 30201 Introduction to Industrial Controls (P: ECET 17700 or ECET 22400)
ECET 32100 Introduction to Nanotechnology (P: ECET 22700)
ECET 32700 Instrumentation and DAQ Design (P: Physics I and MA 16010)
ECET 38501 Intro to Automotive Electronics (P: ECET 27700 or ECET 22400) or ECET 38502 Intro to Automotive Electronics Lab

IET 23500 Introduction to Lean and Sustainable Systems
TLI 31400 Leading Innovation in Organizations
TLI 31500 New Product Development (P: TLI 11200) or TECH 22000 Design Technology For People
IET 33520 Human Factors for Technology Systems
IET 33610 Risk Analysis & Assessment or IT 38500 Industrial Ergonomics
IET 33620 Total Production Maintenance (P: TLI 31600 or IT 34200 or STAT 301, & Physics I)
IET 41400 Financial Analysis for Tech Systems (P:IET 33400 or IT 45000 or MGMT 20010)
IET 43530 Operations Planning and Management (P: MA 15800)
IET 43540 Facilities Planning (P: MET 14300 or 14400, and IET 43530)
IET 43640 Lean Six Sigma (P:TLI 31600 or IT 34200)
TLI 45700 Technology Policy & Law
MET 30200 CAD in the Enterprise (P: MET 10200 and MET 24500)
MET 32000 Applied Thermodynamics (P: MET 22000 and MA 16010)
MET 38200 Controls & Instrumentation (P: MET 28400 and MA 16010)
MET 34600 Adv. Materials in Manufacturing (P: MET 24500, CHM 11100, and MET 21100)
MET 42100 Air Conditioning & Refrigeration (P: MET 32000 or MET 33000)
MET 43200 Hydraulic Motion Control (P: MET 23000 or MET 33000)
MET 43600 Pneumatic Motion Control (P: MET 23000 or MET 33000)
MET 45100 Manufacturing Quality Control (P: STAT 30100 or Math-K 310)
MFET 30000 Applications of Automation in Manufacturing (P: MET 24500 and ECET 22400)
MFET 34400 Automated Manufacturing Processes (P: MET 24500)
MFET 34800 Advanced Industrial Robotics (P: MFET 24800 and ECET 33700)
MFET 37400 Manufacturing Integration I (P: MET 28400)

HUMANITIES FOUNDATION SELECTIVE
See approved UCC Humanities list at: http://www.purdue.edu/provost/initiatives/curriculum/course.html

HUMANITIES/LIBERAL ARTS ELECTIVES
Any course from the following disciplines: Anthropology, English, History, Philosophy, Political Science, Psychology, Religious Studies, Sociology, Theatre, Women's Studies, or Foreign Languages (except native language courses)

LAB SCIENCE SELECTIVES
See approved UCC Science list: http://www.purdue.edu/provost/initiatives/curriculum/course.html

FREE ELECTIVES
Any non-remedial course offered for credit at the University not already required/being used on the Plan of Study.

SENIOR PROJECT CAPSTONE SELECTIVES
Select one two-course sequence from the table below.

Senior Capstone Project Selective I		Senior Capstone Project Selective II
ENGT 40500 – Entrepreneurial Capstone I (for entrepreneurial minor senior students only)	And	ENGT 40600 – Entrepreneurial Capstone II (for entrepreneurial minor senior students only
ECET 43100 – International Capstone Plan	And	ECET 46100 International Capstone Project Execution
ENGT 48000 Engineering Technology Capstone I	And	ENGT 48100 Engineering Technology Capstone II

PROFESSIONAL REQUIREMENT – All Students MUST complete
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 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.

POTENTIAL PROFESSIONAL EXPERIENCES

Approval Process	Experience
Automatic	Any TECH Professional Practice course (co-op, intern, etc.)
Automatic	MET 29900 Internship for Credit
Automatic	EPICS courses, minimum of 2
Advisor	Any approved internship (assuming student and/or employer provide documentation)
Advisor	Military service (ROTC, reservist, active duty, veteran)
Faculty	Supervised undergraduate research experiences or laboratory assistantships (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 or industry project.

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.

INTERCULTURAL REQUIREMENT

All students must complete the School of Engineering Technology (Polytechnic) Growth Plan for Global Awareness and Intercultural Competency at the Developmental Level (see below). Students who are interested in further developing their Global Awareness and Intercultural Competency are encouraged to complete the requirement at the Emerging Level or the Proficient Level (see advisor for more information).
Polytechnic Growth Plans for Global Awareness & Intercultural Competency

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 a full semester 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 completed their Polytechnic Plan of Study are exempt from Step 1 (taking the IDI Pretest).

*Global experiences must take place during the time of enrollment in Polytechnic to complete Step 2.
Experiences 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.

Polytechnic list of recommended Global/Cultural courses

AAS 27100 - Introduction To African American Studies
AAS 37300 - Issues In African American Studies
AGR 20100 - Communicating Across Culture
ANSC 38100 - Leadership For A Diverse Workplace
ANTH 20300 - Biological Bases Of Human Social Behavior
ANTH 20500 - Human Cultural Diversity
ANTH 21000 - Technology And Culture
ANTH 21200 - Culture, Food And Health

ANTH 23000 - Gender Across Cultures
ANTH 34000 - Global Perspectives On Health
ANTH 34100 - Culture And Personality
ANTH 37900 - Native American Cultures
ARAB 28000 - Arabic Culture
ASAM 24000 - Introduction To Asian American Studies
AT 22300 - Human Factors For Flight Crews
CNIT 32000 - Policy, Regulation, And Globalization In Information Technology
COM 22400 - Communicating In The Global Workplace

COM 30300 - Intercultural Communication
COM 32000 - Small Group Communication
COM 37300 - Self-Presentation And Social Image
COM 41200 - Theories Of Human Interaction
COM 42300 - Leadership, Communication And Organizations
ECET 29000 - International Experience
ECET 38001 - Global Professional Issues In Engineering Technology
EDPS 30000 - Student Leadership Development
EDPS 30100 - Peer Counseling Training
EDPS 31500 - Collaborative Leadership: Interpersonal Skills
EDPS 31600 - Collaborative Leadership: Cross-Cultural Settings
EDPS 31700 - Collaborative Leadership: Mentoring
ENGL 41400 - Studies In Literature And Culture
HDFS 28000 - Diversity In Individual And Family Life
HDFS 33200 - Stress And Coping In Contemporary Families
HEBR 38500 - The Holocaust In Modern Hebrew Literature
HIST 19500 - The Historian's Craft: Historical Research And Film
HIST 30000 - Eve Of Destruction: Global Crises And World Organization In The 20th Century
HIST 33805 - History Of Human Rights
HIST 35000 - Science And Society In The Twentieth Century World
HIST 36600 - Hispanic Heritage Of The United States
HIST 37700 - History And Culture Of Native America
HIST 46900 - Black Civil Rights Movement
HTM 37000 - Sustainable Tourism And Responsible Travel
HTM 37200 - Global Tourism Geography
MSL 20100 - Individual Leadership Studies

OLS 35000 - Creativity In Business And Industry
PHIL 11400 - Global Moral Issues
PHIL 43500 - Philosophy Of Mind
POL 22200 - Women, Politics, And Public Policy
POL 23500 - International Relations Among Rich And Poor Nations
POL 32600 - Black Political Participation In America
POL 32700 - Global Green Politics
POL 36000 - Women And The Law
POL 41300 - The Human Basis Of Politics
POL 42300 - International Environmental Policy
POL 42900 It's a Complex World
POL 43300 - International Organization
PSY 12000 - Elementary Psychology
PSY 25100 - Health Psychology
PSY 32200 - Neuroscience Of Motivated Behavior
SOC 10000 - Introductory Sociology
SOC 31000 - Racial And Ethnic Diversity
SOC 33900 - Introduction To The Sociology Of Developing Nations
TECH 33000 - Technology And The Global Society
TLI 11200 - Foundations Of Organizational Leadership
TLI 31400 - Leading Innovation In Organizations
WGSS 28200 - Introduction To LGBT Studies
WGSS 38000 - Gender And Multiculturalism
WGSS 38300 - Women And Work
Any foreign language 20000 level or higher (20100, 20200, 30100, 30200)