

# Smart Manufacturing Industrial Informatics (SMII)

Purdue Polytechnic Institute

School of Engineering Technology

## Advising Worksheet

**Disclaimer:** The Purdue West Lafayette catalog is considered the source for academic and programmatic requirements for students entering programs during the corresponding Fall, Spring, and Summer semesters. The Advising Worksheet assists students in the development of an individualized 8-semester plan. Students are encouraged to use this worksheet and MyPurduePlan\* (the online degree auditing tool) as they work with their academic advisor toward the completion of all their degree requirements.

**Notification:** Each student is ultimately responsible for knowing, monitoring, and completing all degree requirements.

An undergraduate degree in the Purdue Polytechnic Institute requires completion of the following degree requirements.

University Degree Requirements		
Minimum 2.0 Cumulative GPA	Minimum 120 Credits that fulfill degree requirements	32 Residency Credits (30000-level and above) at a Purdue University Campus
University Core Curriculum ** <a href="https://www.purdue.edu/provost/students/s-initiatives/curriculum/courses.html">https://www.purdue.edu/provost/students/s-initiatives/curriculum/courses.html</a>		
<ul style="list-style-type: none"><li>• Human Cultures: Behavioral/Social Science</li><li>• Human Cultures: Humanities</li><li>• Information Literacy</li><li>• Oral Communication</li></ul>		<ul style="list-style-type: none"><li>• Quantitative Reasoning</li><li>• Science</li><li>• Science, Technology &amp; Society Selective</li><li>• Written Communication</li></ul>
Civics Literacy Proficiency <a href="https://www.purdue.edu/provost/about/provostinitiatives/civics/">https://www.purdue.edu/provost/about/provostinitiatives/civics/</a>		
Required Major Program Courses (see following pages)		
Departmental specific requirement		
<ul style="list-style-type: none"><li>• Students must earn a "D-" or better in all courses.</li><li>• Courses at Purdue University may only be attempted a maximum of three (3) times, including W, WF, I, IF and all graded attempts.</li><li>• Minimum 2.0 cumulative GPA</li></ul>		
Pass/No Pass option		
<ul style="list-style-type: none"><li>• Electives may be taken P/NP.</li></ul>		
Non-course/Non-credit Requirements		
<ul style="list-style-type: none"><li>• Complete a Professional Requirement. * Complete an Intercultural Requirement.</li></ul>		

\* This audit is not your academic transcript and it is not official notification of completion of degree or certificate requirements.

\*\* University Core Curriculum Outcomes may be met through completions of the Purdue Polytechnic Institute curriculum. Students should Consult with their academic advisors and MyPurdue Plan for course selections.

**School of Engineering Technology – Smart Manufacturing Industrial Informatics (SMII)**  
**Fall 2024**

**Name:** \_\_\_\_\_  
**PUID:** \_\_\_\_\_ **Minors:** \_\_\_\_\_  
**Email:** \_\_\_\_\_ **Updated:** \_\_\_\_\_  
**Advisor:** \_\_\_\_\_

**Suggested Arrangement of Courses**

Fall 1 <sup>st</sup> Year	CR	Prerequisite	Status	Fulfilled by	Spring 1 <sup>st</sup> Year	CR	Prerequisite	Status	Fulfilled by
MET 14300 Materials And Processes I	3				TECH 12000 Design Thinking in Tech.	3			
MA 16010 Applied Calculus I	3	ALEKS score of 75			MA 16020 Applied Calculus II	3	MA 16010 with a grade of C- or better		
ENGT 18200 Gateway to Eng Tech	4	ALEKS 60, SAT 570, ACT 24, or MA 15300 or higher			CNIT 15501 Introduction To Software Development Concepts	3			
Freshman Composition Selective	3				Oral Communication Selective	3			
Lab Science Selective*	3				Computer Graphics Selective	2			
<b>Total Credit Hours</b>	<b>16</b>				<b>Total Credit Hours</b>	<b>14</b>			

Fall 2nd Year	CR	Prerequisite	Status	Fulfilled by	Spring 2nd Year	CR	Prerequisite	Status	Fulfilled by
MFET 23000 Industrial IoT, Networks, And Systems I	3	CS 17700 or CNIT 15501; Concurrent: ECET 22400			MFET 23100 Industrial IoT, Networks, And Systems II	3	MFET 23000		
PHYS 22000 General Physics*	4				STAT 30100 Elementary Statistical Methods*	3			
MFET 25000 Smart Mfg Cloud Computing Applications	3	CNIT 15501 or CS 17700			MET 24500 Manufacturing Systems	3	MET 14300 and MFET 10301		
ECET 22400 Electronics Systems	3	ALEKS 60 or MA 16010			MET 28400 Intro to Industrial Controls	3	ECET 22400		
Technical Writing Selective	3				MFET 24800 Indust Robot Prog & App	3	CNIT 15501		
<b>Total Credit Hours</b>	<b>16</b>				<b>Total Credit Hours</b>	<b>15</b>			

Fall 3rd Year	CR	Prerequisite	Status	Fulfilled by	Spring 3rd Year	CR	Prerequisite	Status	Fulfilled by
MFET 35000 Smart Mfg Systems Modeling & Simulation	3	MFET 23000 and MFET 25000			IET 21400 Intro To Supply Chain Management Tech	3			
MFET 35100 Mixed Reality Smart Mfg Apps/Dsgn	3	MFET 23000 and MET 24500			MFET 36300 Intelligent Manufacturing Systems I	3	MFET 23000 and MFET 36100; Co-req: MFET 35200		
MFET 36100 Machine Learning And Mfg Analytics	3	CNIT 15501 and MA 16020 and STAT 30100			MFET 35200 Smart Mfg Production Information Systems	3	MFET 25000 and STAT 30100		
MFET 34100 Process And Continuous Control App	3	MET 28400			MFET 34400 Advanced Manufacturing Processes	3	MET 24500		
Materials & Processes Selective	3				Humanities Foundation Selective*	3			
<b>Total Credit Hours</b>	<b>15</b>				<b>Total Credit Hours</b>	<b>15</b>			

Fall 4th Year	CR	Prerequisite	Status	Fulfilled by	Spring 4th Year	CR	Prerequisite	Status	Fulfilled by
ENGT 48000 Engineering Technology Capstone I	3	MFET 35100 and MFET 36300			ENGT 48100 Engineering Technology Capstone II	3	ENGT 48000		
MFET 36400 Intelligent Manufacturing Systems II	3	MFET 35200 and MFET 36300 and IET 21400			MFET 41000 Introduction To Additive Manufacturing	3	CGT 10301 and MET 14300		
MFET 44000 Smart Mfg Autonomous Human Robot Sys	3	MFET 24800 and MFET 36100			Communications Selective	3			
IET/TECH/MGMT Selective	3				Behavioral/Social Science Foundation Selective*	3			
Free Elective	3				Free Elective	2			
<b>Total Credit Hours</b>	<b>15</b>				<b>Total Credit Hours</b>	<b>14</b>			

1. 120 semester credits and 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. Free electives may be taken P/NP.
  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.
- 5a. Professional Requirement. 

- 5b. Intercultural Requirement. 

- 5c. Civics Literacy Requirement. 


\*\*\*\*\*  
**The student is ultimately responsible for knowing and completing all degree requirements.**  
**myPurduePlan is knowledge source for specific requirements and completion**  
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Created 05/17/2024 - SH

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## 2024-2025 SMART MANUFACTURING INDUSTRIAL INFORMATICS SUPPLEMENTAL INFORMATION

All prerequisites must be met.

### FRESHMAN COMPOSITION SELECTIVE

ENGL 10600 First-Year Composition

ENGL 10800 Accelerated First-Year Composition

SCLA 10100 Transformative Text, Critical Thinking and Communication I: Antiquity to Modernity

### COMMUNICATION SELECTIVE

COM 22400 Communicating in the Global Workplace

COM 30300 Intercultural Communication

COM 32000 Small Group Communication

COM 41200 Theories of Human Interaction

COM 42300 Leadership, Communication and Organizations

EDPS 31500 Collaborative Leadership: Interpersonal Skills

### IET/TECH/MGMT SELECTIVE

AGEC 33000 Mgmt Methods for Agricultural Sys

IET 33400 Economic Analysis For Technology Systems

MGMT 20000 Intro Accounting

MGMT 21200 Business Accounting

IE 34300 Engineering Economic

### COMPUTER GRAPHICS SELECTIVE

MFET 10301 Geometric Modeling Applications

MFET 16300 Graphical Communication and Spatial Analysis

### HUMANITIES SELECTIVE

<http://www.purdue.edu/provost/initiatives/curriculum/course.html>

### BEHAVIORAL SOCIAL/SCIENCE SELECTIVE

<http://www.purdue.edu/provost/initiatives/curriculum/course.html>

### FREE ELECTIVE

Any non-remedial course

### FRESHMAN SPEECH SELECTIVE

COM 11400 Fundamentals Of Speech Communication

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

### TECHNICAL WRITING SELECTIVE

ENGL 42000 Business Writing

ENGL 42100 Technical Writing

ENGL 42400 Writing For High Technology Industries

### MATERIALS AND PROCESSES SELECTIVE

MET 11100 Applied Statics

MET 14400 Materials & Processes II

### LAB SCIENCE SELECTIVE

BIOL 11000 Fundamentals of Biology I

BIOL 11100 Fundamentals of Biology II

BIOL 20300 Human Anatomy and Physiology

BIOL 20400 Human Anatomy and Physiology

BTNY 11000 Intro to Plant Science

CHM 11100 General Chemistry

CHM 11200 General Chemistry

CHM 11500 General Chemistry

CHM 11600 General Chemistry

CHM 13600 General Chemistry Honors

EAPS 11100 Physical Geology

EAPS 11200 Earth through Time

PHYS 22100 General Physics

PHYS 27200 Electric & Magnetic Interactions

## 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).

**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).**

Step 1:		<b>Complete the Pre-test Intercultural Development Inventory Assessments (1st year)</b>
Step 2:		<p><b>Complete one (1) of the following global experiences: *</b> <span style="float: right;">*Global</span></p> <p>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.</p> <ul style="list-style-type: none"> <li>- Participate in A Purdue University international capstone, collaborative project</li> <li>- Participate in an international internship (international location)</li> <li>- Participate in a full semester abroad program</li> <li>- Complete 3 credit hours from the Polytechnic list of recommended Global/Cultural courses</li> </ul>
Step 3:		<b>Complete the Post-test Intercultural Development Inventory Assessments (4th year)</b>

### Fall 2021 Approved list of courses

Course	Title
AAS 27100	Intro to African American Studies
AAS 35900	Black Women Writers
AAS 37100	The African American Experience
AAS 37300	Issues in African American Studies
AAS 37500	The Black Family
AAS 47300	Blacks in Hollywood Film
AGR 20100	Communication Across Cultures
AMST 10100	America And The World
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 28200	Introduction to LGBTQ Studies
ANTH 32700	Environment and Culture
ANTH 34000	Global Perspectives on Health
ANTH 34100	Culture and Personality
ANTH 35800	African Cultures
ANTH 36800	Sociolinguistic Study of African American English
ANTH 37000	Ethnicity and Culture
ANTH 37300	Anthropology of Religion
ANTH 37800	Archaeology and Cultural Anthropology of Mesoamerica (Mexico, Belize, and Guatemala)
ANTH 37900	Native American Cultures
ANTH 40400	Comparative Social Organization
ARAB 23900	Arab Women Writers

ARAB 28000	Arabic Culture
ARAB 28100	Introduction to Islamic Civilization & Culture
ARAB 33400	North African Literature & Culture
ASAM 24000	Intro to Asian American Studies
ASAM 34000	Contemporary Issues in Asian American Studies
ASL 28000	American Deaf Community: Language, Culture, and Society
AT 22300	Ethics And Aviation
CDIS 23900	Introduction to Disability Studies
CGT 28500	Cross-Cultural Game Development
CHNS 28000	Topics in Chinese Civilization and Culture
CHNS 28100	Intro to Chinese Food Culture
CHNS 33000	Introduction to Chinese Cinema
CM 33200	Architectural Design, Construction Techniques and Society
CMPL 23700	Our Common Bond: Languages and Cultures in a Global Context
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 32800	Diversity Work: A Rhetorical Approach
COM 37200	Communication in Relationships
COM 37600	Communication and Gender
COM 38100	Gender and Feminist Studies in Communication
COM 41200	Theories of Human Interaction
COM 41600	United States Politics and the Media
COM 42300	Leadership, Communication & Organizations
COM 46400	American Political Communication
COM 52700	Introduction to Cultural Studies in Communication
COM 57400	Organizational Communication
CSR 34400	Fundamentals of Negotiations
CSR 52400	International Health
ECET 38001	Global Professional Issues in ET
EDPS 21200	Collaboration and Family Engagement to Support Students with Disabilities
EDPS 23500	Learning and Motivation
EDPS 26500	The Inclusive Classroom
EDPS 31500	Collaborative Leadership: Listening
EDPS 31600	Collaborative Leadership: Cross-Cultural Settings
EDST 51200	Foundations of Educational Policy
ENGL 21800	Figures of Myth and Legends II: Heroes and Villians
ENGL 22500	Literature, Inequality, and Injustice
ENGL 22800	Language and Social Identity
ENGL 22900	Creole Languages and Cultures
ENGL 25700	Literature of Black America
ENGL 28000	Games, Narrative, Culture
ENGL 33000	Games And Diversity
ENGL 35200	Native American Literature
ENGL 35400	Asian American Literature
ENGL 35800	Black Drama

ENGL 35900	Black Women Writers
ENGL 36000	Gender And Literature
ENGL 36600	Postcolonial Literatures
ENGL 43900	Topics in Disability Studies
ENGL 46600	Cultural Encounters
ENGR 31000	Engineering in Global Context
ENTR 47000	Women and Leadership
FNR 48800	Global Environmental Issues
GSLA 10100	Global Awareness
GSLA 30100	Theories of Global Studies
HDFS 20100	Introduction to Family Processes
HDFS 22500	Human Development Across Cultures
HDFS 28000	Diversity in Individual and Family Life
HEBR 38000	Israel and the Modern World: Cinema, Literature, History and Politics
HEBR 38500	The Holocaust In Modern Hebrew Literature
HIST 10500	Survey of Global History
HIST 19500	The Historian's Craft: Historical Research And Film
HIST 21000	The Making of Modern Africa
HIST 21100	The Global Field: World Soccer and Global History
HIST 30000	Eve of Destruction: Global Crises and World Organization in the 20 <sup>th</sup> Century
HIST 31205	The Arab-Israeli Conflict
HIST 31405	STEM And Gender
HIST 31505	American Beauty
HIST 31905	Christianity in the Global Age
HIST 32900	History of Women in Modern Europe
HIST 33400	Science and Society in Western Civilization II
HIST 33805	History of Human Rights
HIST 34505	Arabs in American Eyes
HIST 35000	Science and Society in the 20th-Century World
HIST 35700	History of Southern Africa Since 1400
HIST 35900	Gender in East Asian History
HIST 36000	Gender in Middle East History
HIST 36600	Hispanic Heritage Of The United States
HIST 37100	Society, Culture, and Rock and Roll
HIST 37700	History & Culture of Native America
HIST 38105	American Indians and Film
HIST 38605	Land of the Indians: Native Americans in Indiana
HIST 38700	History of the Space Age
HIST 39800	African American History Since 1877
HIST 46900	Black Civil Rights Movement
HIST 47005	Women and Health in America
HIST 47700	Native American Women's History
HIST 48800	History of Sexual Regulation in the United States
HIST 49400	Science and Society in American Civilization
HK 57600	Diversity and Health
ITAL 28000	Italian Culture and Civilization
ITAL 28100	The Italian Renaissance and its Scientific and Cultural Impact on Western Civilization

JPNS 28000	Introduction to Modern Japanese Civilization
LALS 25000	Introduction to Latin American & Latino Studies
LALS 26000	US Latino Culture
LC 23300	Love, Sex, and Gender in Western European Literature
LC 23700	Our Common Bond: Languages and Cultures in a Global Context
LC 36800	Sociolinguistic Study of African American English
LING 36800	Sociolinguistic Study of African American English
LING 57600	Latin American Indigenous Languages and Cultures
MET 52700	Technology from a Global Perspective
MGMT 33100	Development and Impact of Equal Employment Law
MUS 37600	World Music
NUTR 53200	World Food Problems
OBHR 54100	Leading Management of Diversity and Inclusion in Organizations
PHIL 11400	Global Moral Issues
PHIL 20700	Ethics for Technology, Engineering, and Design
PHIL 22500	Philosophy and Gender
PHIL 23000	Religions of the East
PHIL 23100	Religions of the West
PHIL 24000	Social and Political Philosophy
PHIL 24200	Philosophy, Culture, and the African American Experience
POL 13000	Introduction to International Relations
POL 14100	Governments of the World
POL 22200	Women, Politics & Public Policy
POL 23100	Introduction to United States Foreign Policy
POL 23500	International Relations Among Rich And Poor Nations
POL 32600	Black Political Participation in America
POL 32700	Global Green Politics
POL 33500	China and the Challenges of Globalization
POL 36000	Women and the Law
POL 41300	The Human Basis of Politics
POL 42300	International Environmental Policy
POL 43300	International Organization
POL 43801	International Human Rights
PSY 23900	The Psychology of Women
PSY 24400	Introduction to Human Sexuality
PSY 33700	Social Cognition
PTGS 33000	Brazilian, Portugese, and African Cinema
PUBH 22500	Contemporary Women's Health
PUBH 51100	International Health
REL 23000	Religions of the East
REL 23100	Religions of the West
RUSS 33000	Russian and East European Cinema
RUSS 38000	Russian Culture and Civilization I
RUSS 38100	Russian Culture and Civilization II
SOC 10000	Introductory Sociology
SOC 22000	Social Problems
SOC 26700	Religion in the Modern World

SOC 31000		Racial and Ethnic Diversity
SOC 33800		Global Social Movements
SOC 33900		Introduction to Sociology of Developing Nations
SOC 35200		Drugs,Culture,&Society
SOC 35600		Hate And Violence
SOC 36700		Religion In America
SOC 36900		Religion and Chinese Society
SOC 41100		Social Inequality
SOC 42900		Sociology Of Protest
SOC 51400		Racial and Cultural Minorities
SYS 30000		It's a Complex World - Addressing Global Challenges
TECH 33000		Technology and the Global Society
TLI 11200		Foundations Of Organizational Leadership
TLI 35600		Global Technology Leadership
WGSS 28000		Women's Gender and Sexuality Studies: An Introduction
WGSS 28100		Wom Pol And Publ Pol
WGSS 28200		Intro to LGBT Studies
WGSS 38000		Gender and Multiculturalism
WGSS 38100		Women of Color in the United States
WGSS 38300		Women and Work
Any foreign language 200 or higher (201, 202, 301, 302, 401, 402)		
Any Purdue approved Study Abroad with a minimum of 3 credit hours that includes reflective learning assignments.		



## 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.

### Approved Professional Experiences

Approval by	Experience
Automatic	Any TECH Professional Practice course (co-op, intern, etc.)
Automatic	MET 29900 Internship for Credit
Automatic	EPICS courses, minimum of two
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