# **Mechatronics Engineering Technology (MHET)**

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 Requireme	ents							
Minimum 2.0 Cumulative	Minimum 120 Cred	lits that	32 Residency Credits (30000-level					
GPA	fulfill degree requir	rements	and above) at a Purdue University					
		Campus						
University Core Curriculum **								
https://www.purdue.edu/provost/stude	ents/s-initiatives/curriculum	<u>/courses.html</u>						
<ul> <li>Human Cultures: Behav</li> </ul>	rioral/Social Science	• Qua	ntitative Reasoning					
Human Cultures: Human	nities	• Scie						
<ul> <li>Information Literacy</li> </ul>		<ul> <li>Science, Technology &amp; Society Selective</li> </ul>						
Oral Communication     Written Communication								
Civics Literacy Proficiency	Civics Literacy Proficiency							
https://www.purdue.edu/provost/abou	it/provostInitiatives/civics/							
Required Major Program Cou	rses (see following r	pages)						
Departmental specific requirement		24.600/						
Students must earn a "D-"	" or better in all courses.							
Courses at Purdue Unive	ersity may only be attem	npted a maximun	n of three (3) times, including W, WF, I, IF and					
all graded attempts.								
Minimum 2.0 cumulative GPA								
Pass/No Pass option								
<ul> <li>MFET majors do not allow P/NP grading for any classes that are used to meet degree requirements, all degree requirements must be taken for a grade. Electives may be taken P/NP</li> </ul>								

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

\* Complete an Intercultural Requirement.

\*\* 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.



Non-course/Non-credit Requirements

Complete a Professional Requirement.

# School of Engineering Technology – Mechatronics Engineering Technology (MHET) Fall 2024 Name: PUID: Minors:

**Suggested Arrangement of Courses** 

Email: Advisor:

ouggested / in range ment of courses									
Fall 1 <sup>st</sup> Year	CR	Prerequisite	Status	Fulfilled by	Spring 1 <sup>st</sup> Year	CR	Prerequisite	Status	Fulfilled by
Materials and Processes Selective	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 Cor better		
ENGT 18200 Gateway to Eng Tech	4	ALEKS 60, SAT 570, ACT 24, or MA 15300 or higher			MET 11100 Applied Statics	3	ENGT 18200		
Freshman Composition Selective	3				ECET 22400 Electronics Systems	3	ALEKS 60 or MA 16010		
CNIT 10500 Introduction to C Programming	3				Humanities Foundation Selective	3			
Total Credit Hours	16				Total Credit Hours	15			

**Updated:** 

Fall 2nd Year	CR	Prerequisite	Status	Fulfilled by	Spring 2nd Year	CR	Prerequisite	Status	Fulfilled by
ECET 17900 Introduction to Digital Systems	3	(ENGT 18200 or ECET			STAT 30100 Elementary Statistics	3			
Freshman Speech Selective* +	3	22400) and CNIT 10500)			Methods MET 23000 Fluid Power	3	(MET 11100 or PHYS sel.) and MA 16010		
MET 21300 Dynamics	1	MET 11100			MFET 24100 Automatic Control Systems	3	(MA 16020 or MA 16200 or MA 16600)		
MET 28400 Intro to Industrial Controls	3	ECET 22400			ECET 27900 Embedded Digital Systems	3	ECET 17900		
CS 17700 Programming with MM Obj	4				Physics Selective	4			
Total Credit Hours	16				Total Credit Hours	16			

Fall 3rd Year	CR	Prerequisite	Status	Fulfilled by	Spring 3rd Year	CR	Prerequisite	Status	Fulfilled by
MET 33400 Advanced Fluid Power	,	MET 23000			MET 31500 Ap Mechanicsm Kinematics	2	MET 21300 and Computer		
MET 33400 Advanced Fluid Power	3	WE1 23000			and Dynamics	3	Graphics Selective		
MEET 26100 Machina Laarning & Mfg		(CS 17700 or CNIT 15501)							
MFET 36100 Machine Learning & Mfg Analytics	3	and MA 16020 and STAT			MET 38200 Controls/Instr for Automation		MET 28400		
		30100							
FCFT 26000 Applied Computer Vision	3	(CS 17700 or CNIT 10500)			MFET 37100 Intro to Precision Machine	3	MFET 24100		
ECET 36900 Applied Computer Vision	3	and ECET 22400			Design	3	WIFE1 24100		
Computer Graphics Selective	2				CHM 11100 General Chemistry	3			
Communications Selective	3				Free elective	3			
Total Credit Hours	14				Total Credit Hours	15			

Fall 4th Year	CR	Prerequisite	Status	Fulfilled by	Spring 4th Year	CR	Prerequisite	Status	Fulfilled by
ENGT 48000 ET Capstone I	3	ECET 27900 and MET 38200			ENGT 48100 ET Capstone II	3	ENGT 48000		
MET 22000 Heat and Power	3	PHYS 22000 and MA 16010 and ENGT 18200			IET 33400 Economic Analysis for Technology Systems	3			
MET 48200 Mechatronics	3	MET 28400			MET 43200 Hydraulic Motion Control	3	MET 23000		
MFET 47100 Electric Machines	3	MFET 24100 and MET 38200			ECET 33700 Analog Signal Processing	3	ECET 22400 + MA 16020		
Behavioral/Social Science Foundation Selective	3				Free Elective	1			
Total Credit Hours	15				Total Credit Hours	13			

- 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.		

myPurduePlan is knowledge source for specific requirements and completion

\*

Created 05/20/2024 - SH

Updated 04/11/2024 (effective Fall 2024)



# 2024-2025 MECHATRONICS ENGINEERING TECHNOLOGY SUPPLEMENTAL INFORMATION All prerequisites must be met.

FRESHMAN COMPOSITION SELECTIVE

ENGL 10600 First-Year Composition SCLA 10100 Transformative Text, Critical Thinking and

ENGL 10800 Accelerated First-Year Composition Communication I: Antiquity to Modernity+

FRESHMAN SPEECH SELECTIVE

COM 11400 Fundamentals Of Speech Communication SCLA 10200 Transformative Texts, Critical Thinking And

Communication II: Modern World+

**COMMUNICATIONS SELECTIVE** 

COM 31500 Speech Communication Of Technical Information+ COM 41500 Discussion Of Technical Problems+

COM 32000 Small Group Communication EDPS 31500 Collaborative Leadership: Interpersonal Skills

**MATERIALS & PROCESSES SELECTIVE** 

MET 14300 Materials & Processes I MET 14400 Materials & Processes II

**COMPUTER GRAPHICS SELECTIVE** 

MFET 10301 Geometric Modeling Applications MFET 16300 Graphical Communication and Spatial Analysis

CGT 11000 Technical Graphics Communications ENGT 10500 Intro to Engineering Design

**PHYSICS SELECTIVE** 

PHYS 22000 General Physics PHYS 17200 Modern Mechanics

HUMANITIES FOUNDATION SELECTIVE: see <a href="http://www.purdue.edu/provost/initiatives/curriculum/course.html">http://www.purdue.edu/provost/initiatives/curriculum/course.html</a>

BEHAVIORAL/SOCIAL SCIENCE FOUNDATION SELECTIVE: see http://www.purdue.edu/provost/initiatives/curriculum/course.html

**FREE ELECTIVE:** Any non-remedial course

+ denotes a Cornerstone Certificate course.

Updated 4/11/2024



#### 2024-2025

## **Professional Requirement**

The SOET Professional Experience requirement is intended to document those experiences which help expose SOET students to the expectations of their professional 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	EPICS courses, minimum of two
Advisor	Any approved internship (assuming student and/or employer provide documentation)
Advisor	Military service (ROTC completion, 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



#### 2024-2025

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.

AAS 27100 Introduction 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 AGEC 53200 World Food Problems AGR 20100 Communicating Across Culture 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 36800 Sociolinguistic Study Of African American English

ANTH 37000 Ethnicity And Culture ANTH 37300 Anthropology Of Religion

ANTH 35800 African Cultures

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 And Culture

ARAB 33400 North African Literature And Culture ASAM 24000 Introduction To Asian American Studies ASAM 34000 Contemporary Issues In Asian American Studies ASL 28000 American Deaf Community: Language, Culture, And Society

AT 23300 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 Introduction 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 At 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 And 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 Engineering Technology

EDPS 21200 Collaboration And Family Engagement To Support Students With

EDPS 23500 Learning And Motivation EDPS 26500 The Inclusive Classroom

EDPS 31500 Collaborative Leadership: Interpersonal Skills EDPS 31600 Collaborative Leadership: Cross-Cultural Settings

EDST 51200 Foundations Of Educational Policy

ENGL 21800 Figures Of Myth And Legends II: Heroes And Villains

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 2024-2025

HDFS 28000 Diversity In Individual And Family Life

 ${\it HEBR~38000~Israel~And~The~Modern~World: Cinema, Literature,~History~And}\\$ 

**Politic** 

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

20th Century

HIST 31205 The Arab-Israeli Conflict

HIST 31405 Science, Technology, Engineering And Mathematics (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

 $\hbox{HIST 33805 History Of Human Rights}\\$ 

HIST 34505 Arabs in American Eyes

HIST 35000 Science And Society In The Twentieth 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 And 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 The Afro-American Since 1865

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 And Latino Studies

LALS 26000 U S 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, And 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, Portuguese, 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 Race And Ethnicity

SOC 33800 Global Social Movements

SOC 33900 Introduction To The Sociology Of Developing Nations

SOC 35200 Drugs, Culture, And 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 28200 Introduction 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 20000 or higher (20100, 20200, 30100, 30200, 40100,

10200)

Any Purdue approved Study Abroad with a minimum of 3 credit hours that

includes reflective learning assignments.

