PURDUE UNIVERSITY

Manufacturing Engineering Technology
Concentration Robotics
College of Technology

TMFET-BS
MFET
120-cr for graduation
"D-" or better required in all major courses

Departmental/Program Major Courses (120 credits)

Required Major Courses (32 credits)

_____ (3) MET 10200 – Production Specifications
_____ (3) MET 11100 – Applied Statics
_____ (1) MET 11300 -- Mechanics Applications
_____ (3) MET 14400 – Materials and Processes II (MET Gateway Course)
_____ (1) MET 16200 – Computational Analysis Tools
_____ (3) MET 23000 -- Fluid Power
_____ (3) MET 24500 – Manufacturing Systems
_____ (3) MET 28400 – Introduction to Industrial Controls
_____ (3) MET 38200 – Controls and Instrumentation for Automation
_____ (3) MFET 34400 – Automated Manufacturing Processes
_____ (3) MFET 34800 – Industrial Robots and Motion Control
_____ (3) MFET 37400 – Manufacturing Integration

MFET Selectives – (16 credits)

_____ (3) Mechatronics Selective
_____ (3) Technical Elective
_____ (3) Fluid Controls Selective
_____ (4) Free Elective

Other Departmental/Program Course Requirements (63 credits)

_____ (3) COM 11400 - Fundamentals of Speech Communication *(satisfies Oral Communication for core)*
_____ (3) ENGL/COM Selective
_____ (3) ENGL 42100 – Technical Writing
_____ (3) IET 45100 or TLI 33400 – Engineering Economics
_____ (3) MA 15800 – Precalculus – Functions and Trigonometry
_____ (3) MA 16010 - Applied Calculus I *(satisfies Quantitative Reasoning for core)*
_____ (3) MA 16021 - Applied Calculus II and Differential Equations
_____ (3) ECET 17900 – Introduction to Digital Systems
_____ (3) ECET 22400 – Electronic Systems
_____ (3) ECET 22700 – DC and Pulse Electronics
_____ (3) ECET 27900 – Embedded Digital Systems
_____ (3) ECET 38001 --- Global/Professional Issues
_____ (3) ECET 43000 – Electronics Product and Program Management
_____ (3) ECET 46000 – Project Design and Development
_____ (3) CNIT 10500 – Introduction to C Programming
_____ (3) CHM 11100 – General Chemistry
_____ (4) PHYS Selective (choose from PHYS 218, PHYS 220, PHYS 172) *(satisfies Science for core)*
_____ (3) TECH 12000 - Design Thinking in Technology *(satisfies Information Literacy* and *Science, Technology & Society for core)*
_____ (3) Science Selective
_____ (3) English Composition Selective *(satisfies Written Communication for core)*
_____ (3) General Education Human Cultures: Humanities Selective *(satisfies Human Cultures Humanities for core)*
_____ (3) General Education Human Cultures: Behavior/Social Sciences *satisfies Human Cultures: Behavioral Sciences for core)*
_____ (3) Humanities/Social Science Elective
_____ (2) CGT Selective (choose from CGT 11000 or CGT 16300)
_____ (3) Statistics/Quality Selective (choose between STAT 301 or IT 342)

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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The student is ultimately responsible for knowing and completing all degree requirements.

Degree Works is the knowledge source for specific requirements and completion.

PURDUE UNIVERSITY

School of Engineering Technology Name: _____
Major: Manufacturing Engineering Technology (MFET)
Concentration in Robotics
MFET-BS Suggested Arrangement of Courses Catalog Term: _____ PUID: _____

For Catalog Terms beginning in Fall 2014
Major Code: MFET Program Code: TMFET-BS

Accredited by the Engineering Technology Accreditation Commission of ABET, http://www.abet.org

Fall 1st Year	CR	GR	Sem	Fulfilled by	**Spring 1st Year**	CR	GR	Sem	Fulfilled by
MET 14400 Materials and Processes II	3				CHM 11100 General Chemistry	3			
MA 15800 Precalculus* (Prereq: ALEKS Score of 60%)	3				ECET 22400 Electronic Systems (Prereq: MA 15300 or MA 16010)	3			
TECH 12000 Design Thinking in Tech.*	3				MA 16010 Applied Calculus I* (Prereq: MA 15800 with grade of C- or better or ALEKS score of 75%)	3			
Freshman Composition Selective*	3				MET 16200 computational Analysis Tools	1			
Free elective	1				COM 11400 Fund of Speech Communication*	3			
					Humanities Selective*	3			
TOTAL CREDIT HOURS	**13**				**TOTAL CREDIT HOURS**	**16**			

Fall 2nd Year	CR	GR	Sem	Fulfilled by	**Spring 2nd Year**	CR	GR	Sem	Fulfilled by
ECET 22700 DC & Pulse Electronics (Prereq: ECET 22400 and MA 16010)	3				MET 10200 Production Specifications (Prereqs: CGT 11000 and MET 16200)	3			
MET 11100 Applied Statics (Prereqs: MA 15800 and MET 16200)	3				MET 11300 Mechanics Applications (Prereq: MET 11100)	1			
MA 16021 Applied Calc/Diff Equations (Prereq: MA 16010 with a grade of C- or higher)	3				MET 24500 Manufacturing Systems (Prereqs: (MET 14300 or MET 14400) and (CGT 110 or CGT 16300))	3			
Behavioral/Social Science Selective*	3				MET 28400 Intro to Industrial Controls (Prereq: ECET 22400)	3			
Computer Graphics Selective	2				CNIT 10500 Introduction to C Programming	3			
					Physics Selective	4			
TOTAL CREDIT HOURS	**14**				**TOTAL CREDIT HOURS**	**17**			

Fall 3rd Year	CR	GR	Sem	Fulfilled by	**Spring 3rd Year**	CR	GR	Sem	Fulfilled by
ECET 17900 Intro to Digital Systems (Prereqs: ECET 22400 and CNIT 105)	3				ECET 27900 Embedded Digital Systems (Prereq: ECET 17900)	3			
MET 23000 Fluid Power (Prereqs: (MET 11100 or PHYS 22000) and MA 16010)	3				ECET 38001 Global Professional Issues in EET	3			
MFET 34400 Automated Mfg Processes (Prereq: MET 24500)	3				MET 38200 Controls/Instr for Automation (Prereq: MET 28400)	3			
MFET 37400 Mfg Integration I (Prereq: MET 28400)	3				ENGL 42100 Technical Writing (Prereq: ENGL 10600)	3			
Science Selective	3				Statistics or Quality 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
ECET 43000 Elec Product & Prog Mgmt (Prereq: ECET 38001)	3				ECET 46000 Project Design and Development (Prereq: ECET 43000)	3			
MFET 34800 Ind Robots/Motion Ctrl (Prereq: MET 28400)	3				Technical Selective	3			
IET 451 or TLI 334 Monetary Analysis for Industrial Decisions	3				Fluid Controls Selective	3			
Mechatronics Selective	3				Humanities/Social Science Selective	3			
English/Communication Selective	3				Free Elective	3			
TOTAL CREDIT HOURS	**15**				**TOTAL CREDIT HOURS**	**15**			

Refer to _____ for a complete list of requirements, options for selectives and pre-requisites.

*Fulfills University core.

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

1. Students must earn a "D-" or better in all courses.
2. Courses at Purdue University may only be attempted a maximum of three (3) times, including W, WF, I, IF and all graded attempts.
3. ECET 43000, ECET 46000 and 12 hours of ECET Selectives must be taken at the Purdue University location conferring the degree.
4. 32 credit hours of 300-level or higher courses must be completed at Purdue University.

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********** *Updated 5/27/2014*