



# Mech Engr Tech BS

IU Indianapolis School of Engr & Tech (TECH)

[Career Options](#) | [Financial Aid Options](#)

**Student's Catalog Year:** Fall 2018–Summer 2019

**Total Degree Map Credits:** 120

**Description:** Mechanical Engineering Technology is a hands-on program that teaches the generation, transmission, and utilization of mechanical and fluid energy, as well as the design and production of tools, machines, and their products. Graduates of the MET program are qualified for positions as Production, Design, Project, or Quality engineers.

**C Critical Courses:** Courses that students should complete by specific points during their degree or certificate program.

**M Milestones:** Conditions or activities that students should complete by specific points during their degree or certificate program.

**Completing a critical course or milestone by the associated term is considered crucial to on-time graduation.**

## Year One (30 credits)

Fall Term	Minimum Grade	Credits	Spring Term	Minimum Grade	Credits
TECH 10200 - First Year Seminar for Technology Majors		1	MET 11100 - Applied Statics		3
<b>Required Semester of Completion:</b> Year 1, Fall			<b>Critical Course</b>		
MET 10400 - Technical Graphics Communication		3	<b>Course Details:</b> P: TECH 10500 AND C: MATH 15400 or 15900		
<b>Critical Course</b>			<b>Required Semester of Completion:</b> Year 1, Spring		
<b>Course Details:</b> C: MATH 15300 OR MATH 15900			MET 20400 - Introduction to Design		3
<b>Required Semester of Completion:</b> Year 1, Fall			<b>Critical Course</b>		
TECH 10500 - Introduction to Engr Tech		3	<b>Course Details:</b> P: MET 10400 AND TECH 10500		
<b>Critical Course</b>			<b>Required Semester of Completion:</b> Year 4, Spring		
<b>Course Details:</b> P or C: MATH 11100 and ENG-W 131			IET 10400 - Industrial Organization		3
<b>Required Semester of Completion:</b> Year 1, Fall			<b>Critical Course</b>		
MATH 15900 - Pre-Calculus	C	5	<b>Required Semester of Completion:</b> Year 4, Spring		
<b>Critical Course</b>			CHEM-C 101 - Elementary Chemistry I		3
<b>Course Details:</b> Also meets Gen Ed Analytical Reasoning (Math) P: MATH 11100 with a C or better or appropriate placement on the ALEKS placement test.			<b>Critical Course</b>		
<b>Required Semester of Completion:</b> Year 1, Spring					

ENG-W 131 - Reading, Writing, and Inquiry I	3	^
<b>Course Details:</b> Also meets Gen Ed Core Communication - Writing Competency <b>Required Semester of Completion:</b> Year 4, Spring		
<b>Total</b>		<b>15</b>

<b>Critical Course</b> <b>Course Details:</b> Also meets Gen Ed Core Life & Physical Sciences Competency <b>Required Semester of Completion:</b> Year 3, Fall		
COMM-R 110 - Fundamentals of Speech Communication	3	^
<b>Course Details:</b> Also meets Gen Ed Core Communication - Speaking & Listening Competency <b>Required Semester of Completion:</b> Year 4, Spring		
<b>Total</b>		<b>15</b>

### Year Two (30 credits)

Fall Term	Minimum Grade	Credits	^
MET 21100 - Applied Strength for Materials <b>C</b>		4	^
<b>Critical Course</b> <b>Course Details:</b> C: Students must take this course with TCM 218 P: MET 11100 AND C: MATH 22100 with a grade of C or better <b>Required Semester of Completion:</b> Year 2, Fall			
MET 21300 - Dynamics		3	^
<b>Course Details:</b> P: MET 11100 AND C: MATH 22100 with a grade of C or better <b>Required Semester of Completion:</b> Year 4, Spring			
TCM 21800 - Introduction to Engineering Technical Reports <b>C</b>		1	^
<b>Critical Course</b> <b>Course Details:</b> C: Students must take this course with MET 21100 P: ENG-W 131 <b>Required Semester of Completion:</b> Year 2, Fall			
MATH 22100 - Calculus for Technology I <b>C</b>	C	3	^
<b>Critical Course</b> <b>Course Details:</b> Also meets Gen Ed Analytical Reasoning (Math) P: MATH 15900 with a grade of C or better OR P: MATH 15300 AND MATH 15400, both with grades of C or better <b>Required Semester of Completion:</b> Year 2, Fall			
PHYS 21800 - General Physics I <b>C</b>	C	4	^

**Critical Course**

**Course Details:** Also meets Gen Ed Core Life & Physical Sciences Competency P: MATH 15300 AND MATH 15400 with a grade of C or better OR P: MATH 15900 with a grade of C or better

**Required Semester of Completion:** Year 2, Fall

**Total 15**

**Spring Term**

Minimum Grade Credits

MATH 22200 - Calculus for Technology II C 3

**Critical Course**

**Course Details:** Also meets Gen Ed Analytical Reasoning (Math) P: MATH 22100 with a grade of C or better

**Required Semester of Completion:** Year 4, Spring

MET 21400 - Machine Elements 3

**Critical Course**

**Course Details:** P: PHYS 21800 with a grade of C or better AND MET 21100

**Required Semester of Completion:** Year 3, Spring

MET 23000 - Fluid Power 3

**Course Details:** P: PHYS 21800 with a grade of C or better AND MET 21100

**Required Semester of Completion:** Year 4, Spring

MET 22000 - Heat and Power 3

**Critical Course**

**Course Details:** P: PHYS 21800 with a grade of C or better AND MATH 22100 with a grade of C or better

**Required Semester of Completion:** Year 2, Spring

Arts & Humanities Elective 3

**Course Details:** Also counts toward the General Education Arts and Humanities Elective

**Required Semester of Completion:** Year 4, Spring

**Total 15**

**Year Three (31 credits)**

**Fall Term**

Minimum Grade Credits

MET 32000 - Applied Thermodynamics 3

**Course Details:** C: Students must take this course with TCM 35800 P: MET 22000

**Required Semester of Completion:** Year 3, Fall

TCM 35800 - Technical Report Analysis and Development 1

**Spring Term**

Minimum Grade Credits

MET 31000 - Computer Aided Machine Design 3

**Course Details:** Students must take this course with TCM 39900

**Required Semester of Completion:** Year 4, Spring

TCM 39900 - Data Reporting and Presentation 1

<p><b>Course Details:</b> C: Students must take this course with MET 32000  <b>Required Semester of Completion:</b> Year 3, Fall</p>		
MET 33800 - Manufacturing Processes	4	^
<p><b>Course Details:</b> P: MATH 15300 AND MATH 15400 both with a grade of C or better AND MET 10400 OR P: MATH 15900 with a grade of C or better AND MET 10400  <b>Required Semester of Completion:</b> Year 4, Spring</p>		
MET 34800 - Engineering Materials	4	^
<p><b>Course Details:</b> P: CHEM-C 101  <b>Required Semester of Completion:</b> Year 4, Fall</p>		
IET 15000 - Quantitative Methods for Tech	3	^
<p><b>Course Details:</b> P: MATH 15300 AND MATH 15400 both with a C or better OR P: MATH 15900 with a C or better  <b>Required Semester of Completion:</b> Year 3, Fall</p>		
<b>Total</b>		<b>15</b>

<p><b>Course Details:</b> Students must take this course with MET 31000  <b>Required Semester of Completion:</b> Year 4, Spring</p>		
MET 35000 - Applied Fluid Mechanics	3	^
<p><b>Required Semester of Completion:</b> Year 4, Spring</p>		
ECET 11600 - Electrical Circuits	3	^
<p><b>Required Semester of Completion:</b> Year 3, Spring</p>		
ECET 16400 - Object Orientated Programming	3	^
<p><b>Required Semester of Completion:</b> Year 3, Spring</p>		
IET 35000 - Engineering Economics	3	^
<p><b>Required Semester of Completion:</b> Year 4, Spring</p>		
<b>Total</b>		<b>16</b>

### Year Four (29 credits)

Fall Term	Minimum Grade	Credits	^
MET 32800 - CAD/CAM for Mechanical Design		3	^
<p><b>Required Semester of Completion:</b> Year 4, Spring</p>			
ECET 35100 - Instrumentation and Controls		3	^
<p><b>Required Semester of Completion:</b> Year 4, Spring</p>			
Sustainability Elective		3	^
<p><b>Course Details:</b> Students can pick from a list of Technical Sustainability courses  <b>Required Semester of Completion:</b> Year 4, Spring</p>			
Technical Selective		3	^
<p><b>Course Details:</b> Students can take any course from the Technical Selective list  <b>Required Semester of Completion:</b> Year 4, Spring</p>			
Social Sciences Elective		3	^

Spring Term	Minimum Grade	Credits	^
MET 41400 - Design of Mechanical Projects		3	^
<p><b>Course Details:</b> Students are required to take this with MET 41400  <b>Required Semester of Completion:</b> Year 4, Spring</p>			
TCM 41500 - Technical Communication for the Mechanical Design Process		1	^
<p><b>Course Details:</b> Students are required to take this with MET 41400  <b>Required Semester of Completion:</b> Year 4, Spring</p>			
Cultural Understanding Elective		3	^
<p><b>Course Details:</b> Also counts toward the General Education Cultural Understanding Competency.  <b>Required Semester of Completion:</b> Year 4, Spring</p>			
Arts and Humanities OR Social Science Elective		3	^

**Course Details:** Can count toward the General Education Social Science Competency  
**Required Semester of Completion:** Year 4, Spring

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Notify School of Intent to Graduate M ^

**Milestone Details:** Please contact your school to determine appropriate steps necessary to apply for graduation.  
**Required Semester of Completion:** Year 4, Fall

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**Total 15**

**Course Details:** Also counts toward the Arts and Humanities OR Social Science Competency.  
**Required Semester of Completion:** Year 4, Spring

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Technical Selective 3 ^

**Course Details:** Students can take any course from the Technical Selective List  
**Required Semester of Completion:** Year 4, Spring

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ECET 49300 - Ethics & Professionalism 1 ^

**Required Semester of Completion:** Year 4, Spring

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**Total 14**

**Degree Map Link:**

<a href="https://sisjee.iu.edu/sisigps-prd/web/igps/dm/public/maps/view?mapId=6ffdaf48-7564-4802-984f-d5d4364ef448">https://sisjee.iu.edu/sisigps-prd/web/igps/dm/public/maps/view?mapId=6ffdaf48-7564-4802-984f-d5d4364ef448</a>	<a href="#" style="border: 1px solid #ccc; padding: 2px 10px; text-decoration: none; color: #005596;">Copy</a>
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Achieving minimum grades for individual courses may not result in meeting cumulative GPA requirements for admission to programs or for graduation. Verify requirements with your academic advisor or your Academic Advisement Report (AAR).

Completing 30 credit hours each calendar year is required for full state financial aid eligibility. Be sure to complete your FAFSA before March 10 each year. If you follow your map and find a course unavailable, you may be eligible to take that course for free in a future semester.

[More information about the free course guarantee.](#)