

# Bachelor of Science in Engineering

## Technology

# Engineering Technology with a Major in Manufacturing Engineering Technology (BSET)

## Degree Program Guide\*

The Degree Program Guide is a suggested curriculum to complete this degree program in four years. It is just one of several plans that will work and is presented only as broad guidance to students. Each student is strongly encouraged to develop a customized plan in consultation with their academic advisor. Additional information can also be found in Degree Works.

Course	Title	Credit Hours
<b>Freshman</b>		
<b>Fall</b>		
MET 120	Computer Aided Drafting	3
ENGN 110	Explore Engineering and Technology	2
MATH 162M	Precalculus I (grade of C or better required)	3
CHEM 121N	Foundations of Chemistry I Lecture **	3
CHEM 122N	Foundations of Chemistry I Laboratory **	1
Human Behavior Way of Knowing		3
<b>Credit Hours</b>		<b>15</b>
<b>Spring</b>		
MET 230	Engineering Graphics and Computer Solid Modeling	3
ENGT 111	Engineering Technology Information Literacy/Research	2
MATH 163	Precalculus II (grade of C or better required)	3
PHYS 111N	Introductory General Physics	4
ENGL 110C	English Composition (grade of C or better required)	3
<b>Credit Hours</b>		<b>15</b>
<b>Sophomore</b>		
<b>Fall</b>		
MET 200	Manufacturing Processes and Methods	3
MET 210	Statics	3
MATH 211	Calculus I (grade of C or better required)	4
PHYS 112N	Introductory General Physics	4

ENGL 211C or ENGL 231C	Writing, Rhetoric, and Research (grade of C or better required) or Writing, Rhetoric, and Research: Special Topics	3
<b>Credit Hours</b>		<b>17</b>
<b>Spring</b>		
MET 220	Strength of Materials (grade of C or better required)	3
MET 225	Strength of Materials Laboratory	1
STEM 221 or STEM 231	Industrial Materials or Materials and Processes Technology	3
COMM 101R	Public Speaking	3
Human Creativity Way of Knowing		3
Literature Way of Knowing		3
<b>Credit Hours</b>		<b>16</b>
<b>Junior</b>		
<b>Fall</b>		
MET 300	Thermodynamics (grade of C or better required)	3
MET 310	Dynamics	3
MET 320	Design of Machine Elements	3
ENGT 305	Advanced Technical Analysis	3
EET 350	Fundamentals of Electrical Technology	3
EET 355	Electrical Laboratory	1
<b>Credit Hours</b>		<b>16</b>
<b>Spring</b>		
MET 330	Fluid Mechanics	3
MET 335	Fluid Mechanics Laboratory	1
MET 350	Thermal Applications	3
MET 370	Automation and Controls ***	3
MET 386	Automation and Controls Laboratory ***	1
ENMA 480	Ethics and Philosophy in Engineering Applications ****	3
Approved Manufacturing Elective		3
<b>Credit Hours</b>		<b>17</b>
<b>Senior</b>		
<b>Fall</b>		
MET 387	Power and Energy Laboratory	2
ENGT 434	Introduction to Senior Project	1
ENGN 401	Fundamentals of Engineering Review	1
Approved Manufacturing Elective		3
Approved Manufacturing Elective		3
Interpreting the Past Way of Knowing		3
ENMA 302	Engineering Economics	3
<b>Credit Hours</b>		<b>16</b>
<b>Spring</b>		
ENGT 435W	Senior Design Project (grade of C or better required)	3
Approved Manufacturing Elective		3
Approved Manufacturing Elective		3

ENMA 401	Project Management	3
ENMA 421	Decision Techniques in Engineering	3
<b>Credit Hours</b>		<b>15</b>
<b>Total Credit Hours</b>		<b>127</b>

## Manufacturing Engineering Technology Approved Electives

MET 400	Computer Numerical Control in Production	3
MET 405	Introduction To Welding Technologies	3
MET 406	Additive Manufacturing	3
MET 410	Advanced Manufacturing Processes	3
MET 415	Introduction to Robotics	3
MET 420	Design for Manufacturing	3
MET 426	Introduction to Mechatronics	3
MET 427	Mechatronic System Design	3
MET 431	Modeling and Simulation of Mechatronic Systems	3
MET 445	Computer Integrated Manufacturing	3
MET 455	Lean Engineering	3
MET 465	Geometric Dimensioning and Tolerancing	3
EET 405	Data Communications and Computer Networks	3

\* Does not include the University's General Education language and culture requirement. Additional hours may be required.

\*\* Must be taken together.

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\*\*\*\* Meets philosophy and ethics general education requirement.