BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING TECHNOLOGY

2021-2022 Degree Requirements

TOTAL CREDITS FOR DEGREE: 131

Name: _____ **ID Number:** _____

UNIVERSITY CORE CURRICULUM: 42 cr.

Required Fundamental Courses

COMM 101 Oral Comm. & Pres.		3 credits
ENGL 101 College Composition		3 credits
UNIV 101 City-University Life		3 credits
Senior Capstone	**ET 407**	3 credits

Choose Thematic Core courses in the following:

Explore the World - Choice 1		3 credits
Explore the World - Choice 2		3 credits
Investigate Science	**CHEM 101**	3 credits
Investigate Mathematics	**MATH 180**	3 credits
Interpret Creative Works		3 credits
Understand People - Choice 1		3 credits
Understand People - Choice 2		3 credits
Succeed in Business		3 credits
Appreciate & Apply the Arts		3 credits
Discover Technology	**EGR101**	3 credits

MAJOR REQUIREMENTS: 89 cr.

CHEM 102 General Chemistry II (3)
CHEM 103 General Chemistry Laboratory I (1)
CHEM 104 General Chemistry Laboratory II (1)
MATH 175 Elementary Stat (3)
MATH 185 Trigonometry (2)
MATH 190 Calculus I (4)
MATH 210 Calculus II (4)
MATH 230 Linear Algebra **OR**
MATH 310 Differential Equations (3)
NSET 218 Technical Writing (3)

PHYS 201 Fundamentals of Physics I (3)
PHYS 202 Fundamentals of Physics II (3)
PHYS 103 Physics Laboratory I (1)
PHYS 104 Physics Laboratory II (1)
EET 102 DC Circuits (3)
EET 103 AC Circuits (3)
EET 104 DC Circuits Lab (1)
EET 105 AC Circuits Lab (1)

ET 204 Programming for Eng Tech (3)
ET 405 Fund. Of Engineering Exam I (0)
ET 406 Fund. Of Engineering Exam II (0)
ETGR 205 Eng Tech Graph (3)
MET 101 Statics (3)
MET 102 Dynamics (3)
MET 212 Properties of Materials (3)
MET 213 Strength of Materials (3)
MET 214 Strength of Materials Lab (1)
MET 215 Thermodynamics (3)
MET 320 Kinematics of Machine Elements (4)
MET 331 Engineering Des Pro/Eng (3)
MET 405 Heat Transfer (4)

MET 411 Fluid Mechanics (3)
MET 412 Fluid Mechanics Lab (1)
MET 416 Mechanical Vibrations (3)
MET 421 Machine Design Theory & Project (4)
MET 424 Finite Element Analysis (3)
MET 425 FEA with ANSYS (2)

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2021-2022 Degree Requirements

PROGRAM OBJECTIVES

Upon successful completion of this program, a student will be able to:

1. Analyze and design structural systems.
2. Analyze and design mechanical systems in motion.
3. Analyze and design thermal systems and processes.
4. Use engineering software in design and analysis and will create engineering software.
5. Apply mathematics, physics, chemistry, and material properties.
6. Collaborate in classroom and laboratory settings.
7. Produce effective documents and oral presentations.
8. Plan and manage technical projects.
9. Grow professionally through independent learning.
10. Take the Fundamentals of Engineering examination as a first-step towards professional licensure.
11. Knowledge of professional laws and codes.
12. Understand the personal and professional roles of an engineering technologist in society.