

Energy Systems Management – Bachelor of Science (EGYM.BS)

This is a 120-credit, four-year program providing the advanced technical, interpersonal and managerial skills necessary to embark on a professional career in the energy industry and to become an effective decision maker, manager and leader within this diverse and challenging field.

Minimum credits: 120

Minimum cumulative GPA: 2.0

Minimum grades in all courses: 2.0

Minimum Jackson College credits: 30

GENERAL EDUCATION REQUIREMENTS (41 CREDITS)

GEO 1: Write clearly, concisely, and intelligibly (6 credits)

Take the following:

ENG 131 Writing Experience I
ENG 232 Technical and Business Writing

GEO 2: Recognize the importance of effective communication in a dynamic and changing society (3 credits)

Choose one of the following:

COM 231 Communication Fundamentals
COM 240 Interpersonal Communication
COM 250 Intercultural Communication
HIS 211 Minority Groups in America
HUM 131 Cultural Connections
PHL 243 Great World Religions
PLS 262 International Relations
PSY 152 Social Psychology (OR SOC 152 Social Psychology)
SOC 246 Marriage & Family

GEO 3: Demonstrate computational skills and mathematical reasoning (4 credits)

Take the following:

MAT 139 College Algebra

GEO 4: Demonstrate scientific reasoning (12-13 credits)

Take the following:

*If you choose to take CEM 131, you do not need to take CEM 141

CEM 131 Fundamentals of Chemistry
CEM 141 General Chemistry
PHY 131 Conceptual Physics
BIO 152 Environmental Science

**GEO 5: Understand human behavior and social systems, and the principles that govern them
(12 credits)**

Take the following:

ECN	231	Macroeconomics
ECN	232	Microeconomics
PSY	130	General Psychology
PSY	344	Organizational Psychology

**GEO 6: Identify artistic, linguistic, and theoretical perspectives across the human experience
(3 credits)****

Choose one of the following:

ART	111	Art History: Prehistoric to 1400
ART	112	Art History: Renaissance to Present
MUS	131	Understanding Music
THR	116	Introduction to Theatre

CERTIFIED PRODUCTION TECHNICIAN RELATED REQUIREMENTS (16 CREDITS)

Take the following:

MFG	135	Industrial Safety
MFG	136	Blueprint Reading and Precision Measurement
MFG	137	Production Processes and Fabrication
ELT	106	Basic Electricity and Fluid Systems
CAD	152	SolidWorks I

ENERGY SYSTEMS MANAGEMENT CORE REQUIREMENTS (50 CREDITS)

Take the following:

ALT	200	Principles of Alternative Energy
BUA	220	Principles of Management
BUA	420	Project Management and Leadership
CAD	151	AutoCAD I
CAD	172	SolidWorks II
CAD	252	SolidWorks III
COM	240	Interpersonal Communication
COM	350	Intercultural Communications
EGY	101	Energy Industry Fundamentals
EGY	220	Energy Industry Experience
EGY	345	Internship
EGY	380	Power Grid/Smart Grid
EGY	499	Senior Seminar
ELT	220	Industrial Motion Controls
ELT	260	Basic Programmable Controllers
ELT	261	Advanced PLC Programming
MFG	211	Robotics Operations and Programming
MFG	262	Principles of IIOT, Industrial Internet of Things
STM	101	Introduction to Sustainability
STM	401	Systems Thinking

TECHNICAL ELECTIVES (8 CREDITS)

Select any courses from ALT, CAD, EGY, ELT, MAT, MFG, or WLD (or additional subjects approved by program faculty) to meet the program's 120-credit requirement.

ADDITIONAL PROGRAM REQUIREMENTS

CPR Training/Certification