

## 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 equity and inclusion in a diverse society (3 credits)\*\***

**Choose one of the following:**

HUM 131 Cultural Connections

#### **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  
(13 credits)**

**Take the following:**

ECN	231	Macroeconomics
ECN	232	Microeconomics
PSY	140	Introduction to 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 (7 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

*\*\*We have listed the preferred course option(s) in this category, but other courses may be used to meet this requirement. Your student success navigator will assist you making the best course selection based on your schedule and interests. You can view the complete list of approved GEO courses in the [Jackson College Catalog](#) on pages 14-16.*