

Advanced Energy Systems (Pend. Approval)

ASSOC OF APPLIED SCIENCE

Major code: 2245

Department: Industrial Manufacturing and Controls

Chair: Justin Blazzard

Advising: Jackie Koehler 541-881-5865

PROGRAM OVERVIEW

The Associate of Applied Science in Advanced Energy Systems represents a comprehensive academic program designed to meet the evolving demands of the sustainable energy sector. This curriculum integrates theoretical foundations with applied technical training across multiple renewable energy disciplines, preparing graduates for professional roles in this expanding field.

The program provides advanced instruction in renewable energy technologies with emphasis on system design, integration, and maintenance. The curriculum encompasses multiple sustainable energy platforms, including photovoltaic systems, wind energy technology, and emerging agrivoltaic applications that synthesize agricultural production with solar generation capabilities.

REQUIRED COURSES (91 CREDITS)

Courses are listed in suggested sequence.

YEAR 1

<u>COURSE #</u>	<u>COURSE TITLE</u>	<u>CREDITS</u>
- BCT 102	Introduction to Printreading.....	3
- AES 100	ADVANCED ENERGY SYSTEMS.....	3
- AES 110	ADV ENRGY SYST I: ENERGY EFFICIENCY. 3	
- AES 120	ADV ENG SYS II: SYSTEM FUNDAMENTALS 3	
- BA 131	INTRO TO BUSINESS COMPUTING.....	4
- INED 100	INTRO TO AUTOMATION/RENEWABLE.....	3
- INED 101	INTRO TO BASIC TROUBLESHOOTING.....	3
- INED 103	MECHANICAL SYSTEMS.....	3
- INED 104	ELECT SYSTEMS TROUBLESHOOTING I....	3
- INED 107	ELECT SYSTEM TROUBLESHOOTING II....	3
- INED 108	PRINCIPLES OF TECHNOLOGY.....	3
- INED 212	INDUSTRIAL SAFETY & MANAGEMENT.....	3
- MATH 063	TECHNICAL MATH I.....	4
- MATH 093	TECHNICAL MATH II.....	4
- WR 115	INTRO TO COLLEGE WRITING.....	4

YEAR 2

<u>COURSE #</u>	<u>COURSE TITLE</u>	<u>CREDITS</u>
- AES 130	ADV ENG SYS III: INSTALL & MAINT.....	3
- AES 140	ADV ENERGY SYS IV: SYSTEMS DESIGN....	3
- AES 200	ADVANCED ENERGY SYSTEMS CAPSTONE.....	3
- AES 210	INVERTERS, STARTERS, & STOR DEVICES.3	
- AES 220	ALTERNATIVE FUELS.....	3
- AES 280	ADV ENERGY SYSTEMS CO-OP WORK EXP.....	1
- GSCI 104	PHYSICAL SCIENCE PHYSICS.....	4
- INED 112	CONTROL SYSTEMS.....	3
- INED 113	BASIC HYDRAULICS.....	2
- INED 115	PROCESS CONTROL & INSTRUMENTATION.....	3
- INED 157	EMPLOYMENT STRATEGIES.....	2
- INED 167	CAD I 2D DRAWING.....	4
- INED 213	ADVANCED CONTROL SYSTEMS.....	3
- WELD 150	BASIC WELDING I.....	5

Total number of credits..... 91