

# FACILITIES ENERGY SYSTEMS TECHNOLOGY CERTIFICATE

33 Semester Credit Hours; Curriculum: 0369

Code	Title	Hours
<b>Courses for a Certificate</b>		
AHR 101	Introduction to Air Conditioning and Refrigeration	4
AHR 105	EPA Section 608 Certification	1
AHR 206	Residential Hot Water Boilers and Hydronics Technology	4
CIS 101 or CIS 103	Introduction to Computer Information Systems Computer Software and Concepts	3
FME 101	Introduction to Facilities Management and Engineering	3
FME 107	Blueprint Reading for Building Trades	4
FME 201	Mechanical, and Electrical Systems in Buildings	4
FME 240	Energy Management and DDC Controls	3
MFG 135	Fluid Power and Controls	4
Select at least three credit hours from the following:		3
AHR 104	Introduction to Electricity and Automatic Controls	
AHR 208	Advanced Automatic Controls	
AHR 212	Indoor Air Quality	
AHR 213	Commercial HVAC Systems Applications	
AHR 214	Energy Audit, Analysis and Management	
AHR 215	Steam Boiler Operations	
CAD 116	Basic AutoCAD	
ELT 101	Introduction to Electronics	
MFG 240	Programmable Logic Controllers (PLC)	
<b>Total Hours</b>		<b>33</b>

## Program Learning Outcomes

1. Interpret drawings of various types of HVAC systems for comfort controls.
2. Describe lighting and power distribution of electricity issues and demonstrate the ability to troubleshoot and repair.
3. Demonstrate the ability to make required modifications as per the needs of the facility.
4. Demonstrate the ability to check and maintain fire protection systems in working order.
5. Demonstrate the ability to manage equipment for high efficiency for energy management.