Electro-Mechanical and Energy Technology - Associate of Applied Science Degree

Code: F_AAS_CLET_00
Campus: Larimer

The focus of this program is to prepare individuals for entry-level work in the growing clean energy industry as well as careers in manufacturing and conventional energy. The program includes a one-year certificate that forms the basis for a two-year Associate of Applied Science Degree. The first year will focus on providing a sound foundation in the basic skills that apply to the broad range of industries in the region. Skills include Clean Energy and Manufacturing Fundamentals, Safety, Engineering Materials, AC/DC Fundamentals, Metrology, and Teamwork and Communications. Year two will provide students with the option of selecting one of two pathways: Electrical/Mechanical or Power Technology.

Assessment testing is required for all students, although in some cases, recent transcripts or ACT/SAT test scores take the place of assessment testing. Students who place into CCR 093 or above and MAT 050 or above may apply to begin this program of study. Students scoring below this level should consult with FRCC advising before applying for this program of study. The above course prerequisites must be successfully completed before a student can apply for entry into this program. The Clean Energy website listed below has detailed information regarding applying for acceptance into the program.

All courses applied to the degree must be completed with a grade of "C" or above.

For more information, or to apply for the program, visit the Clean Energy Technology program website at http://www.frontrange.edu/cleanenergy or email cleanenergyinfo@frontrange.edu.

AAS Degree - Electrical/Mechanical

Code: F_AAS_ELMC_02

REQUIRED CORE COURSES	***CREDITS***
ELT 106 Fundamentals of DC/AC	3
MTE 105 Safety for Manufacturing Environment	1
MTE 106 Print Reading for Manufacturing	3
MTE 130 Metrology	3
MTE 135 Lean Six Sigma	4
ENY 161 Energy Industry Fundamentals	4
EGT 201 Engineering Materials	3
Total Required Credits	***21***
ELECTRICAL/MECHANICAL	
ELT 107 Fundamentals of Industrial Electronics	3
ELT 147 Digital Devices I	3
ELT 205 Electronic Troubleshooting I	3
ELT 258 Programmable Logic Controllers	3
MTE 238 Industrial Fluid Power & Controls	3
PPT 116 Instrumentation and Control	3
ENY 122 Wind Energy & Photovoltaics	3
ENY 280 Internship OR ENY 289 Energy Technology Capstone	1
Select 3 elective credits from the following: ELT, MTE, ENY, EGT, MAC, PPT	3
Total Credits	***25***
REQUIRED GENERAL EDUCATION COURSES	***CREDITS***
COM 125 Interpersonal Communication	3
ENG 115 Technical English & Communication	3
MAT 108 Technical Mathematics	4
PHI 112 Ethics	3
PHY 105 Conceptual Physics	4
Total Required General Education Credits	***17***
Total Required Credits for AAS Degree Electrical/Mechanical	**63**

AAS Degree - Power Technology

Code: F_AAS_CPOT_01

REQUIRED CORE COURSES	*CREDITS*
ELT 106 Fundamentals of DC/AC	3
MTE 105 Safety for Manufacturing Environment	1
MTE 106 Print Reading for Manufacturing	3
MTE 130 Metrology	3
ENY 161 Energy Industry Fundamentals	4
EGT 201 Engineering Materials	3
Total Required Credits	***17***
POWER TECHNOLOGY	
ELT 147 Digital Devices I	3
ELT 258 Programmable Logic Controllers	3
PPT 105 Basic Plant Operation	2
PPT 116 Instrumentation and Control	3
PPT 118 Substations & Transformers	3
PPT 204 Interconnected System Operations	3
PPT 210 Steam Turbines	3
PPT 215 Power Generation	3
ENY 122 Wind Energy & Photovoltaics	3
ENY 280 Internship OR ENY 289 Energy Technology Capstone	1
Total Credits	***27***
REQUIRED GENERAL EDUCATION COURSES	*CREDITS*
COM 125 Interpersonal Communication	3
ENG 115 Technical English & Communication	3
MAT 108 Technical Mathematics	4
PHI 112 Ethics	3
PHY 105 Conceptual Physics	4
Total Required General Education Credits	***17***
Total Required Credits for AAS Degree Power Technology	**61**

GAINFUL EMPLOYMENT DISCLOSURE INFORMATION

The U.S. Department of Education requires colleges to disclose a variety of information for any financial-aid-eligible program that "prepares students for gainful employment in a recognized occupation." The information provided here is the best available to us but represents one year's data only. We hope that this information is helpful to our current students and to prospective students as they make their career and educational choices. For more Gainful Employment information, please go to the FRCC website: www.frontrange.edu/GainfulEmployment.

Electro-Mechanical and Energy Technology - Certificate

Code: F_CER_CLET_00
Campus: Larimer

REQUIRED PROGRAM COURSES	*CREDITS*
ELT 106 Fundamentals of DC/AC	3
MTE 105 Safety for Manufacturing Environment	1
MTE 106 Print Reading for Manufacturing	3
MTE 130 Metrology	3
ENY 161 Energy Industry Fundamentals	4
EGT 201 Engineering Materials	3
Total Required Credits	***17***
GENERAL EDUCATION REQUIRED COURSES	*CREDITS*
COM 125 Interpersonal Communication	3

ENG 115 Technical English & Communication	3
MAT 108 Technical Mathematics	4
PHY 105 Conceptual Physics	4
Total Required General Education Credits	***14***
Total Required Credits for Certificate	**31**