

RENEWABLE FUELS TECHNOLOGY

The Renewable Fuels Technology program will provide individuals with the necessary skills and knowledge needed to work in positions in ethanol production and management. Students will obtain hands-on experience with process control trainers. In addition, students will gain knowledge in electricity, environmental compliance, microbial ecology, process dynamics, and distillation and evaporation. Upon completion of the program, graduates will move into diverse positions such as plant operators, safety managers, process engineers, lab technicians, and instrumentation and control technicians.

Required Program of Study for Associate of Applied Science Degree (2 years)

FRESHMAN YEAR

First Semester

Course	Credits
RNEW1101 Ethanol Process Fundamentals	2
RNEW1110 Mechanical and Fluid Fundamentals.....	3
RNEW 1120 Mechanical and Fluid Fundamentals Lab.....	1
RNEW1125 Piping and Instrumentation Diagrams	1
RNEW1105 OSHA and Safety	1
MATH 1040 Applied Math	3
ELMC 1015 Fundamentals of Electricity for Renewable Fuels..2	
ELMC 1025 Fundamentals of Electricity Lab for Renewable Fuels.....	1
AGRI 1000 Microcomputer Applications.....	2
	<u>16</u>

Second Semester

Course	Credits
CHEM 1140 General Chemistry I or CHEM 1020 Survey of Chemistry.....	3-5
RNEW 1135 Distillation and Evaporation Theory.....	3
RNEW 1137 Distillation and Evaporation Lab.....	1
BIOS 1010 General Biology and Lab	4
ELMC 1115 Motor Controls for Renewable Fuels.....	2
ELMC 1125 Motor Controls Lab for Renewable Fuels	2
	<u>15-17</u>

Summer

Course	Credits
AGRI 1300 or ELMC 1300 Cooperative Internship I	4-8

SOPHOMORE YEAR

First Semester

Course	Credits
RNEW1100 Process Dynamics.....	3
RNEW1170 Microbial Ecology.....	2
RNEW 1172 Microbial Ecology Lab.....	1
RNEW1180 Water Treatment and Environmental Compliance	3
ELMC 2175 Electromechanical Systems for Renewable Fuels...2	
ENGL 1050 Career Composition	3
AGRI 1420 Interpersonal Skills (Behavioral Science)	3
	<u>17</u>

Second Semester

Course	Credits
INDT 1030 Boiler Systems.....	2
RNEW1160 Instrumentation and Control	3
RNEW1155 Process Optimization Troubleshooting	3
RNEW1140 Process Plant Chemistry.....	2
AGRI 1410 Intro to Agricultural Economics (Social Science)..3	
RNEW 1190 Industrial Supervisory and Management Principles.....	3
	<u>16</u>

Total Credit Hours

68-74

RENEWABLE FUELS TECHNOLOGY

The Renewable Fuels Technology diploma program will provide individuals with the necessary skills and knowledge needed to work in positions in ethanol production and management. Students will obtain hands-on experience with process control trainers. In addition, students will gain knowledge in science, safety regulations, electricity, distillation and evaporation, and mechanical fundamentals. Upon completion of the program, graduates will move into diverse positions such as plant operators, lab technicians, and instrumentation and control technicians.

Required Program of Study for Diploma (1 year)

First Semester

Course	Credits
RNEW1101 Ethanol Process Fundamentals	2
RNEW1110 Mechanical and Fluid Fundamentals.....	3
RNEW 1120 Mechanical and Fluid Fundamentals Lab	1
RNEW1125 Piping and Instrumentation Diagrams	1
RNEW1105 OSHA and Safety.....	1
MATH 1040 Applied Math	3
ELMC 1015 Fundamentals of Electricity for Renewable Fuels..	2
ELMC 1025 Fundamentals of Electricity Lab for Renewable Fuels.....	1
AGRI 1000 Microcomputer Applications.....	2
	<u>16</u>

Second Semester

Course	Credits
CHEM 1020 Survey of Chemistry.....	3
RNEW 1135 Distillation and Evaporation Theory.....	3
RNEW 1137 Distillation and Evaporation Lab.....	1
BIOS 1010 General Biology and Lab	4
ELMC 1115 Motor Controls for Renewable Fuels.....	2
ELMC 1125 Motor Controls Lab for Renewable Fuels	2
RNEW 1160 Instrumentation and Control	3
	<u>18</u>

Total Credit Hours **34**