ENGINEERING AND INDUSTRIAL TECHNOLOGY - POWER GENERATION OPTION

(Note: Program requirements for this degree are offered on NOC Tonkawa campus only.

At the beginning of each course listing, the four letter abbreviation indicates the department and the four digits indicate the course code used for enrollment. The total course hour value follows each.)

Program Requirements

General Education Courses - 18 Total Credit Hours English Composition Courses

ENGL 1113 English Composition I 3 hours
ENGL 1213 English Composition II 3 hours
(or) ENGL 1223 Technical Writing
(or) COMM 1713 Introduction to Oral
Communication

History & Government Courses

HIST 1483 Amer. History to 1877 3 hours (or) HIST 1493 Amer. History Since 1877

POLI 1113 American Government 3 hours

Mathematics Courses

MATH 1493 Math Applications 3 hours (or) other college-level math

Computer Science Courses

BADM 1113 Digital/Financial Literacy 3 hours (or other approved computer course)

Technical Occupational Specialty - 42 total hours

Total Credit Hours 60 hours

Students will be awarded 42 credit hours of extrainstitutional credit for certified coursework and job performance demonstration at the OGE Energy Corporation in the areas of Plant Operations, Instrumentation, and Control, Plant Electricians, and Plant Mechanics at the following levels: Apprenticeship Level C-1, C-2, and C-3: Safety-PPE and First-aid; Fall Suppression, Worker Right to Know/HAZCOM, Envirochemical, Confined space, Basic Shop Equipment, Prints & Drawings, Clearance Procedures, fuel Systems, SAP Notifications & Confirmation Notes, ash Removal systems, Circulating Water Systems, Steam Cycle, Compressed Air Systems, Turbine Auxiliaries, Generator, Plant Electrical Systems, Water Treatment, Plant Instrumentation, Fire Protection Systems, Hand Signals, Electrical Circuit Basics.

Apprenticeship Level B-1 and B-2:
Coal System, Pulverizes and Feeders, Ash
Systems, Closed Cooling Water System, Stator
Cooling Water system, MCC Breaker System,
Motor Megger, Pump/Motor Rigging & Removal,
Small Motor (25 HP or less) Overhaul, Tubing
and Fittings, Metal Work and Welding, Main
Turbine, Generator and Turbine Lube Oil
Systems, Hydrogen Seal Oil system, Pump
seal Inspection, Heat Exchanger Inspection and
Repair, Calibrate Gauge, Test & Repair Pressure
Switches.

Apprenticeship Level A-1 and A-2:
Control Loops, Piping, Condensate system,
Feedwater System, Steam System, Closed
Cooling Water System, Fuel System-Gas/
Oil, Fuel system-Coal, Plant/Service Air
System, Instrument/Control Air Systems,
Emergency Generator, Waste Water Treatment
System, Circulating Water System, Calibrate
a Transmitter, Freeze Protection System,
Centrifugal Pump, Test & Calibrate Positioners
& Actuators, Lube Oil Systems, Generator/
Electrical System, Test & Repair Pneumatic &
Electronic Solenoid, Small Valve Refurbishment,
Troubleshoot and Repair a Piston Actuator, Pump
Bearing Inspection.

Students are required to pass the OGE certification examination for each of the above levels and complete 12 credit hours at Northern before credit can be transcripted.

The associate in Applied Science degree program is designed to provide the employees of the OGE Energy Corporation of Oklahoma an opportunity to complete an associate degree specifically designed to prepare them with the knowledge. technical skills, and job-related experiences necessary to make a significant contribution to their corporation. The specific areas of operations, instrumentation and control, electrical, and mechanics form the basis of the degree program. Additional focus of this program is the perpetuation of a quality workforce, a higher quality of life for our citizenry and state-wide economic development.

Career Opportunities

Instrument and Control Operator Plant Mechanic

NOC evaluates students for placement into either foundational or college-level courses, whichever will lead to the greatest possibility of student success. Academic placement is determined by A.C.T. test scores--primary or a residual administered in the Testing Center at NOC. Based upon the scores, students may be required to take one or more courses for remediation in English, Math, or Reading, either prior to or concurrent with credit courses. See the NOC testing web page by clicking on the following link: http:// www.noc.edu/act for placement auidelines.