Navarro College Petroleum Technology | 1

PETROLEUM TECHNOLOGY

PETROLEUM TECHNOLOGY – AAS DEGREE PLAN

PROGRAM INFORMATION: The Petroleum Technology Degree will help prepare students for careers in the oil and gas industry where they will perform the duties of lease operators and function as a member of oil and/or gas production team. Graduates from the program will be responsible for ensuring that oil and natural gas well-flow rate and product quality is maintained at optimal levels. They will be required to perform basic maintenance and equipment repair. Through leading by example, employees are expected to lead, guide and train other lease operators. They must ensure that all regulatory and environmental standards are strictly adhered to and appropriate records are maintained.

Program Demand and Occupational Need: Employers in the oil and gas industry report considerable difficulty recruiting qualified individuals to fill open positions. This is partly attributable to characteristics of the industry. The oil and gas boom has resulted in increased demand for workers in this and related positions. According to employers, this trend is expected to continue. Competition for qualified workers continues to increase, especially in the rural counties of Limestone, Freestone, and Leon, where natural gas production is booming. EnCana Oil and XTO Energy have asked Navarro College to implement an oil and gas production training program to train workers for employment in these counties. Other companies including Marathon are also interested in employing graduates from the program. Industry partners, oil and gas companies, indicate that starting salaries range from upper \$40,000 to \$60,000 annually.

Curriculum: The certificate program requires students complete 40 semester hours that includes technical courses from the Workforce Education Course Manual.

A cooperative education class is used to verify workplace competencies. Students successfully completing the program will be awarded an oil and gas production technology certificate.

FRESHMAN YEAR - FALL

INTC 1305: Required for Automation Certificate

| COURSE SECTION | COURSE TITLE | CREDIT HOURS |
|-------------------------|--|--------------|
| PTRT 1301 | Overview of Petroleum Industry | 3 |
| PTRT 1313 | Industrial Safety | 3 |
| PHYS 1415 | Physical Science I | 4 |
| XXXX | or Approved Science | 4 |
| MATH 1314 | College Algebra | 3 |
| MATH 1332 | or Contemporary Mathematics (Quantitative Reasoning) | 3 |
| INMT 2345 | Industrial Troubleshooting | 3 |
| RBTC 1309 | or Pneumatics | 3 |
| INTC 1305 | or Intro to Instrumentation | 3 |
| Fall Total Credit Hours | | 16 |

FRESHMAN YEAR - SPRING

| COURSE SECTION | COURSE TITLE | CREDIT HOURS |
|---------------------------|---------------------------------|--------------|
| PTRT 1317 | Natural Gas Processing | 3 |
| PTRT 1307 | Recovery and Production Methods | 3 |
| PTRT 2323 | Natural Gas Production | 3 |
| ARTS 1301 | Art Appreciation | 3 |
| MUSI 1306 | or Music Appreciation | 3 |
| DRAM 1310 | or Theatre Appreciation | 3 |
| ENGL 1301 | Composition I | 3 |
| Spring Total Credit Hours | | 15 |

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SOPHOMORE YEAR - FALL

| COURSE SECTION | COURSE TITLE | CREDIT HOURS |
|-------------------------|--|--------------|
| PTRT 2280 | Cooperative Education | 2 |
| PTRT 1309 | Corrosion Basics | 3 |
| PTRT 1312 | or Petroleum Regulations | 3 |
| PTRT 1321 | Oil Field Hydraulics | 3 |
| SPCH 1321 | Business & Professional Communication | 3 |
| SPCH 1315 | or Public Speaking | 3 |
| PTRT 1324 | Petroleum Instrumentation | 3 |
| Fall Total Credit Hours | | 14 |

SOPHOMORE YEAR - SPRING

| COURSE SECTION | COURSE TITLE | CREDIT HOURS |
|----------------------------|---------------------------------|--------------|
| BMGT 2309 | Leadership | 3 |
| PTRT 2359 | Petroleum Computer Applications | 3 |
| PTRT 2332 | Artificial Lift | 3 |
| PTRT 1391 | Natural Gas Processing II | 3 |
| ECON 2302 | Principles Economics Micro | 3 |
| GOVT 2305 | or Federal Government | 3 |
| HIST 1301 | or United States History I | 3 |
| Spring Total Credit Hours | | 15 |
| Program Total Credit Hours | | 60 |