

# NUCLEAR POWER TECHNOLOGY

## Nuclear Power Technology Major

### TECHNOLOGY & WORKFORCE DEVELOPMENT DIVISION

#### Program of Study

The Nuclear Power Technology Program will prepare students for employment in specific areas within a nuclear power plant. The technical curriculum is designed around direct specifications from the nuclear power industry. All NPT courses are offered as evening only courses and many are held at the Davis Besse Nuclear Power Station in Oak Harbor. Students can complete the remaining courses in the nuclear power technology program on campus at Terra Community College during the day, evening, weekend or via distance learning. A work/field experience is provided in cooperation with Davis Besse Nuclear Power Station. To be eligible for employment in the nuclear power industry, students must pass a background check and drug test.

The faculty has identified the following Learning Outcomes for graduates:

- Identify methods to minimize human error in decision making.
- Understand the design and operation of the reactor of a nuclear power plant.
- Understand the basic thermodynamic concepts as they are related to power plant design and how altering these conditions affect the performance of a nuclear plant.
- Explain the importance of the need for continual training and education in the nuclear power industry
- Describe how to avoid unplanned radiation exposure.

#### POTENTIAL OCCUPATIONS:

- Mechanical and Electrical Maintenance
- Instruments and Controls
- Operatoins
- Chemistry
- Radiation Protection

#### Associate of Applied Science

##### TECHNICAL CONCENTRATION

		Credit Hrs.
EET 1050	Electricity . . . . .	3
EET 2830	Instrumentation and Process Control . . . . .	3
MET 1040	Hand and Power Tools . . . . .	1
MFG 1020	Safety. . . . .	1
NPT 1000	Nuclear Industry Fundamentals Concepts . . . . .	3
NPT 1200	Nuclear Plant Drawings . . . . .	1
NPT 2000	Reactor Plant Materials. . . . .	3
NPT 2301	Thermo-Fluid Sciences . . . . .	3
NPT 2100	Radiation Detection and Protection . . . . .	3
NPT 2500	Reactor Theory, Safety and Design . . . . .	3
NPT 2700	Nuclear Field Experience. . . . .	2
	Technical Elective . . . . .	3-4
	<b>Total Technical Credit Hours . . . . .</b>	<b>29-30</b>

##### GENERAL EDUCATION AND RELATED COURSES

GEN 1000	First-Year Seminar . . . . .	1
CHM 1010	Introduction to Chemistry . . . . .	3
CHM 1015	Introduction to Chemistry Lab . . . . .	1
CIS 1090	Computer Fundamentals . . . . .	3
ECO 2010	Economics . . . . .	3
ENG 1050	College Composition. . . . .	3
ENG 1900	Technical Writing for Business and Industry . . . . .	3
HUM 1010	Critical Thinking . . . . .	3
MTH 1310	Intermediate Algebra . . . . .	4
MTH 1320	Intermediate Trigonometry . . . . .	3
PHY 1310	General Physics I. . . . .	4
PHY 1315	General Physics Lab I . . . . .	1
SPE 2200	Interpersonal Communications. . . . .	3
	<b>Total General Education &amp; Related Credit Hours . . . . .</b>	<b>34</b>

##### TOTAL CREDIT HOURS

63-64

\* See page 95 for a listing of specific electives.

See your advisor for appropriate course selection.

For available Certificate Program options, see catalog pages 97-103.

\*\* All students graduating from Terra State Community College with an Associate degree of any kind will be functionally proficient in common computer operations and applications. Please see your academic advisor or academic division office for further details.

To determine when courses are scheduled, see program curriculum sheet which is available from the Enrollment Services office in Building A/Room 100, from the Technology and Workforce Development Division office, Building E, Room 107 or on the web at [www.terra.edu](http://www.terra.edu).