

**Bismarck State College**  
**National Energy Center of Excellence**  
**Power Plant Technology Educational Plan**

Name: \_\_\_\_\_

Date: \_\_\_\_\_

The educational plan is a list of courses that students need to complete prior to obtaining their Associate in Applied Science Degree. Students are responsible to contact their advisor if they have any questions. **The course names and numbers are subject to change without notice and may not be regarded as binding obligations on BSC or the state of North Dakota.**

	Total Credits Required	Power Plant Tech Credits Required	General Ed. Credits Required
<b>A.A.S. Degree</b>	67	52	15
<b>Certificate of Completion</b>	56	52	4

Note: The word "credits" in these titles equals semester credit hours.

<b>Semester I:</b>		<b>Tech Credits</b>	<b>Completed</b>
ENRT 101	Introduction to Energy Technology	4	
ENRT 105	Safety, Health & Environmental Practices	3	
ENRT 107	Mechanical Fundamentals	2	
ENRT 110	Plant Equipment & Systems	4	
<b>Total – 1<sup>st</sup> semester</b>		<b>13</b>	
<b>Semester II:</b>		<b>Tech Credits</b>	<b>Completed</b>
ENRT 112	Print Reading	3	
ENRT 103	Applied Math	3	
ENRT 104	Electrical Fundamentals	3	
ENRT 116	Instrumentation & Control	4	
<b>Total – 2<sup>nd</sup> semester</b>		<b>13</b>	
<b>Semester III:</b>		<b>Tech Credits</b>	<b>Completed</b>
ENRT 118	Heat Transfer, Fluid Flow & Thermodynamics	3	
ENRT 120	Water Purification & Treatment	3	
ENRT 205	Steam Generation	3	
ENRT 215	Operations, Troubleshooting & Communications	3	
<b>Total – 3<sup>rd</sup> semester</b>		<b>12</b>	
<b>Semester IV:</b>		<b>Tech Credits</b>	<b>Completed</b>
PWRP 203	Energy Sources & Conversions	3	
PWRP 207	Boilers & Environmental Protection	3	
PWRP 210	Turbines & Combined Cycle	3	
PWRP 224	Power Generation, Components & Protection	3	
ENRT 220	Practical Applications	2	
<b>Total 4<sup>th</sup> semester</b>		<b>14</b>	
<b>Total Technical Credits</b>		<b>52</b>	

**A total of 15 general education credits and 52 technical credits are required for the AAS degree. They may be taken prior to, in conjunction with, or after completion of the technical credits.**

General Education (Communications)	<b>6</b>	
General Education (Arts & Humanities)	<b>3</b>	
General Education Business/Math/Science/Technology	<b>6</b>	
<b>Total technical and general education credits</b>	<b>67</b>	

**General Education Online Classes for Associate in Applied Science degrees**

***Communications (6 credits)***

ENGL 110	College Composition I ( <b>Required</b> )	3 credits	
ENGL 120	College Composition II (ENGL 110 prerequisite)	3 credits	
ENGL 125	Intro to Professional Writing (ENGL 110 prerequisite)	3 credits	
COMM 110	Fund of Public Speaking	3 credits	

***Arts and Humanities/Social and Behavioral Sciences (3 credits)***

Art 110	Intro to Visual Arts	3 credits	
ENGL 278	Alternative Literature	3 credits	
HIST 104	United States Since 1877	3 credits	
HUMS 210	Integ Cultural Studies	3 credits	
MUSC 100	Music Appreciation	3 credits	
PHIL 101	Intro to Philosophy	3 credits	
PHIL 210	Ethics	3 credits	
CJ 201	Intro to Criminal Justice	3 credits	
ECON 201	Principles of Microeconomics	3 credits	
ECON 202	Principles of Macroeconomics	3 credits	
POLS 116	State and Local Government	3 credits	
PSYC 111	Intro to Psychology	3 credits	
SOC 110	Intro to Sociology	3 credits	
SOC 115	Social Problems	3 credits	
SOC 220	Family	3 credits	
SOC 235	Cultural Diversity	3 credits	
SOC 252	Criminology	3 credits	
SOC 275	Native American Studies	3 credits	
SWK 256	Develop of Social Welfare	3 credits	

***Business, Math, Science and Technology (6 credits in any two areas of study)***

***Example, enroll in a math and an accounting course, but not two accounting courses or two math courses.***

ACCT 200	Elements of Accounting I	3 credits	
ACCT 201	Elements of Accounting II	3 credits	
BIOL 111	Concepts of Biology/lab	3/1 credits	
BIOL 124	Environmental Science	3 credits	
BUSN 120	Fund of Business	3 credits	
BADM 202	Principles of Management	3 credits	
BADM 240	Sales	3 credits	
BADM 281	Organizational Behavior	3 credits	
BADM 282	Human Resource Mgmt	3 credits	
CSCI 101	Introduction to Computers	3 credits	

CSCI 122	Beginning/Visual Basic	3 credits	
CSCI 160	Computer Science I	3 credits	
MATH 102	Intermediate Algebra	3 credits	
MATH 103	College Algebra	4 credits	
MATH 210	Elementary Statistics	3 credits	
NUTR 240	Princ of Nutrition	3 credits	
<b><i>Academic Skills Courses (ASC) Courses with numbers below 100 are considered college prep courses and do not apply toward graduation credits.</i></b>			
ASC 087	College Writing Prep	3 credits	
ASC 088	Composition Lab	1 credit	
ASC 089	Composition Lab	1 credit	

## **Graduation requirements for the following educational plans in Power Plant Technology**

### ***Associate in Applied Science in Power Plant Technology (67 semester credit hours)***

- Complete 52 semester credits of technical core courses in Power Plant Technology
- Complete 15 semester credits of general education
- Complete at least 15 semester credit hours from Bismarck State College
- Achieve a minimum 2.00 grade point average (C average) in
  - At least 60 semester credit hours less the semester credit hours given for CLEP examinations, military training and life experience
  - All of your Power Plant Technology courses
  - All credits from Bismarck State College

NOTE: CLEP examinations, military training and life experience credits are given a grade of satisfactory and do not change your grade point average.

- Complete the ENRT 220 Practical Applications course that includes "hands on" work at either a Power Generating Plant or at the BSC lab.
- Clear all college obligations
- Submit an [Application for Graduation](#) at the beginning of the term which you expect to graduate.

### ***Certificate of Completion in Power Plant Technology (56 semester credit hours)***

- Complete 52 semester credits of technical core courses of Power Plant Technology
- Complete 4 semester credits of general education from any two areas of study
- Complete at least 15 semester credit hours from Bismarck State College
- Achieve a minimum 2.00 grade point average (C average) in
  - All of your Power Plant Technology courses
  - All credits from Bismarck State College
- Complete the ENRT 220 Practical Applications course that includes "hands on" work at either a Power Generating Plant or at the BSC lab.
- Clear all college obligations
- Submit an [Application for Graduation](#) at the beginning of the term which you expect to graduate.

Contact us at: 1-800-852-5685 or 701-224-5651 or <http://info.bismarckstate.edu/energy/>