

**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.

**Total Credits Required    Power Plant Tech Credits Required    General Ed. Credits Required**

<b>A.A.S. Degree</b>	67	52	15
<b>Diploma</b>	61	52	9
<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 102 Introduction to the Electrical Industry	3	
ENRT 103 Applied Math	3	
ENRT 105 Safety	3	
ENRT 106 DC Fundamentals	2	
ENRT 108 AC Fundamentals	3	
<b>Total – 1<sup>st</sup> semester</b>	<b>14</b>	
<b>Semester II:</b>	<b>Tech Credits</b>	<b>Completed</b>
PWRP 201 Power Plant Equipment	3	
ENRT 112 Basic Print Reading	2	
ENRT 116 Instrumentation & Control	4	
ENRT 118 Thermodynamics	3	
<b>Total – 2<sup>nd</sup> semester</b>	<b>12</b>	
<b>Semester III:</b>	<b>Tech Credits</b>	<b>Completed</b>
ENRT 120 Water Purification and Treatment	2	
PWRP 203 Energy Sources and Conversions	2	
PWRP 207 Boilers	4	
PWRP 210 Gas Turbines and Combined Cycle Operations	4	
<b>Total – 3<sup>rd</sup> semester</b>	<b>12</b>	
<b>Semester IV:</b>	<b>Tech Credits</b>	<b>Completed</b>
PWRP 212 Steam Turbines and Auxiliaries	3	
PWRP 214 Power Generation	2	
PWRP 216 Electrical System Components and Protection	4	
PWRP 218 Plant Operations & Troubleshooting	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>	

In addition to the energy courses, 15 general education credits are required for the AAS degree:

<b>General Education Credits</b>		
<b>In addition to the energy courses, 15 general education credits are required for the AAS degree:</b>		
<b><u>Communications - 6 credits</u></b>	<b>Gen Ed Credits</b>	<b>Completed</b>
English 110 - College Composition (required)	3	
<b>Choose one:</b>		
English 120 – College Composition II (Prerequisite: ENGL 110)	3	
English 125 – Introduction to Professional Writing (Prerequisite: ENGL 110)	3	
Communications 110 – Fundamentals of Public Speaking	3	
<b><u>Arts &amp; Humanities/Social &amp; Behavioral Sciences - 3 credits</u></b>		
<b>Choose one:</b>	<b>Gen Ed Credits</b>	<b>Completed</b>
CJ 201 Introduction to Criminal Justice	3	
ECON 201 Principles of Microeconomics	3	
ECON 202 Principles of Macroeconomics	3	
HIST 103 United States History to 1877	3	
PHIL 210 Ethics	3	
PSYC 111 Introduction to Psychology	3	
SOC 110 Introduction to Sociology	3	
<b><u>Business/Math/Science/Technology - 6 credits in any two areas of study</u></b>		
For example, enroll in a biology course and a math course, but not two math courses or biology courses.		
<b>Choose two:</b>	<b>Gen Ed Credits</b>	<b>Completed</b>
ACCT 200 Elements of Accounting I	3	
BADM 202 Principles of Management	3	
BADM 282 Human Resource Management	3	
BIOL 124 Environmental Science	3	
CHEM 110/110L Survey of Chemistry/lab	3/1	
CSCI 101 Introduction to Computers	3	
GEOG 121/121L Physical Geography/lab	3/1	
NUTR 240 Principles of Nutrition	3	
<b>Total General Education Credits</b>	<b>15</b>	

\*The list of general education classes are not all the choices that are available. Please contact your advisor if you want to take something that is not listed above.

Contact us!

[www.bismarckstate.edu/energy](http://www.bismarckstate.edu/energy)

701.224.5651 or 800.852.5685

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