



Energy Services & Renewable Technician
 Associate in Applied Science
 Advising Worksheet* 2020-2021

Prescribed Technical Program Total	54
General Education Total	16
Total Degree Credits	70

Semester I offered fall semesters **Completed**

Prescribed Technical Program Requirements			
ESRE	210	Electrical & Safe Work Practices	3
ESRE	216	Mechanical Drive Systems	4
ESRE	213	Hydraulic Fundamentals	3
ESRE	218	Solar & Distributed Grid Systems	4
Total Credits			14

Semester II offered spring semesters **Completed**

Prescribed Technical Program Requirements			
ENRT	224	Automation & Control	3
ENRT	221	Applied Electronics	3
ESRE	226	Commercial Wind Systems	3
ESRE	228	Energy Technician Applications & Troubleshooting	5
Total Credits			14

Semester III **Completed**

Prescribed Technical Program Requirements			
ENRT	118	Heat Transfer, Fluid Flow & Thermodynamics	3
ENRT	105	Safety, Health & Environment	3
ENRT	107	Mechanical Fundamentals	3
ENRT	110	Plant Equipment & Systems	4
Total Credits			13

Semester IV **Completed**

Prescribed Technical Program Requirements			
ENRT	112	Print Reading	3
ENRT	240	Industrial SCADA	3
PWRP	224	Power Generation Components & Protection	3
ENRT	116	Instrumentation & Control	4
Total Credits			13

General Education Requirements **Completed**

Arts & Humanities/Social & Behavioral Sciences			
1.			3
Business, Math, Science & Technology (Two areas of study)			
1.	CIS 164	Networking Fundamentals (Required)	4
2.	MATH 137	Applied Algebra or higher (Required)	3
Communications I			
ENGL	110	College Composition I (Required)	3
Communications II (Select one course.)			
ENGL	120	College Composition II (Prerequisite: ENGL 110)	
ENGL	125*	Intro to Professional Writing (Prerequisite: ENGL 110)	3
COMM	110	Fundamentals of Public Speaking	
Total Credits			16

*ENGL 125 recommended

* The advising worksheet is unofficial and to be used for class planning purposes only. Please refer to the official catalog at <http://catalog.bismarckstate.edu> for the complete listing of the degree requirements.

Transfer Courses

Transfer Courses

Transfer Courses

General Education Requirements Continued

Category III: BUSINESS, MATH, SCIENCE & TECHNOLOGY

Completed

Needed

(6 Credits) *Must be satisfied with courses from two areas of study. Area of study is based on course prefix.*

Gr.	Cr.		Gr.	Cr.		Gr.	Cr.	
3	*	ACCT 200	3/1	CHEM 110	Survey of Chemistry/Lab	3	MATH 146	Applied Calculus I
3	*	ACCT 201	3/1	CHEM 112	Introduction to Forensic Science/Lab	4	MATH 165	Calculus I
3/1		ASTR 150	3/1	CHEM 114	Chemistry in Art/Lab	4	MATH 166	Calculus II
3	*	BADM 202	4/1	CHEM 115	Introductory Chemistry/Lab	3	* MATH 208	Discrete Mathematics
3	*	BADM 210	4/1	CHEM 116	Intro to Organic and Biochemistry/Lab	3	MATH 210	Elementary Statistics
3	*	BADM 240	4/1	CHEM 121	General Chemistry I/Lab	4	* MATH 277	Mathematics for Elementary Teachers I
3	*	BADM 281	4/1	CHEM 122	General Chemistry II/Lab	3/1	MICR 202	Introductory Microbiology/Lab
3	*	BADM 282	3	* CIS 147	Principles of Information Security	3	* NUTR 240	Principles of Nutrition
1	*	BIOL 102	4	* CIS 164	Networking Fundamentals I	3/1	PHYS 100	Concepts of Physics/Lab
3		BIOL 109	3	CSCI 101	Introduction to Computers	3/1	PHYS 110	Introductory Astronomy/Lab
3/1		BIOL 111	3	CSCI 122	Beginning Visual Basic	4/1	PHYS 211	College Physics I/Lab
3/1		BIOL 115	4	CSCI 160	Computer Science I	4/1	PHYS 212	College Physics II/Lab
3		BIOL 124	4	CSCI 161	Computer Science II	4/1	PHYS 251	University Physics I/Lab
3/1		BIOL 125	3/1	GEOG 121	Physical Geography/Lab	4/1	PHYS 252	University Physics II/Lab
3/1		BIOL 126	3/1	GEOG 102	Historical Geology/Lab	2/1	PLSC 110	World Food Crops/Lab
3/1		BIOL 150	3/1	GEOG 105	Physical Geology/Lab	3/1	SCNC 101	Physical Science I/Lab (Biology & Chemistry)
3/1		BIOL 151	3	GIS 105	Fundamentals of GIS	3/1	SCNC 102	Physical Science II/Lab (Physics & Geology)
3/1		BIOL 170	3	* GIS 107	GIS Applications	3/1	SCNC 103	Physical Science III/Lab (Astronomy & Meteorology)
3/1		BIOL 220	4	MATH 103	College Algebra	2/1	* SOIL 210	Introduction to Soil Science/Lab
3/1		BIOL 221	3	MATH 104	Finite Mathematics			
3/1		BIOL 250	2	MATH 105	Trigonometry			
3/1		BOT 170	4	MATH 107	Pre-Calculus			
3	*	BUSN 120	3	* MATH 137	Applied Algebra			

Transfer Courses

Transfer Courses

Transfer Courses

Academic Skills Courses (ASC)

The following Academic Skills Courses (ASC) are pre-college courses that indicate the need for college preparation work before enrollment in college level courses. These courses will not fulfill general education requirements, institutional credit requirements and cannot be included in the semester hours required for an Associate in Applied Science degree.

Gr.	Cr.		Gr.	Cr.	
2		ASC 082	2	ASC 94	College Writing Prep I
2		ASC 91	2	ASC 95	College Writing Prep II
2		ASC 92	2	ASC 96	College Writing Prep III
2		ASC 93	3/1	ASC 098	Basic Biology/Lab

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