



**Energy Management**  
**Bachelor of Applied Science**  
 Degree Plan 2020-2021

*\*Unofficial advising worksheet used for planning purposes only  
 Not a military approved official education plan - contact advisor if one is needed*

Technical Foundation credits	48
General Education credits	42
<u>Energy Management credits</u>	<u>30</u>
<b>Total Degree credits</b>	<b>120</b>

All courses indicated are required

General Education Courses			Completed
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<b>Arts &amp; Humanities (6)</b>			
1.			3
2.			3
<b>Business, Math, Science &amp; Technology (18)</b>			
ACCT	200	Elements of Accounting I	3
ACCT	201	Elements of Accounting II	3
MATH	210	Elementary Statistics	3
BADM	202	Principles of Management	3
BADM	281	Organizational Behavior	3
BADM	282	Human Resource Management	3
<b>Business, Math, Science &amp; Technology (3)</b>			
(Select one Science or Technology course, lab not required)			
1.			3
<b>Communications (9)</b>			
ENGL	110	College Composition I (required)	3
ENGL	125	Introduction to Professional Writing	3
COMM	110	Fundamentals of Public Speaking	3
<b>Social and Behavioral Science (6)</b>			
ECON	201	Principles of Microeconomics	3
ECON	202	Principles of Macroeconomics	3
<b>Total Credits</b>			<b>42</b>

Technical Foundation Courses		Completed
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<b>Total Credits</b>		<b>48</b>

Energy Management Courses			Completed
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ENRG	302	Ethical Issues in the Energy Industry	3
ENRG	310	Energy Production and the Environment	3
ENRG	315	Energy Management Communications	3
ENRG	320	Fundamentals of Workforce Safety	3
ENRG	330	Government Regulations in the Energy Industry	3
ENRG	404	New & Emerging Energy Technologies	3
ENRG	412	Energy Economics and Finance	3
ENRG	420	Energy Markets and Structures	3
ENRG	430	Project Management in the Energy Industry	3
ENRG	435	Managing Energy Facilities	3
<b>Total Credits</b>			<b>30</b>

**Prerequisites - General Education**

Complete the following general education courses prior to enrolling in the listed ENRG courses

ENGL 110	All ENRG Courses
ENGL 125	ENRG 315
BADM 202	ENRG 315
ACCT 200	ENRG 412 - ENRG 420 - ENRG 430
ACCT 201 (Co-Req)	ENRG 412 - ENRG 420
ECON 201	ENRG 412 - ENRG 420
ECON 202	ENRG 412 - ENRG 420
MATH 210	ENRG 430

**Prerequisites - ENRG Courses**

All 300 level ENRG courses must be completed prior to enrolling in 400 level ENRG courses.

ENRG 435 should be completed as your final ENRG course.

# Bachelor of Applied Science (BAS)

Legend

(\*) Course not approved as GERTA

(F) Course designated as Fine Arts

## General Education Requirements <sup>1</sup>

### Category I: COMMUNICATIONS

#### Communications I

(3 Credits) - ENGL 110

Gr.	Cr.	Course	Description
_____	3	ENGL 110	College Composition I

#### Communications II

(3 Credits) - ENGL 120 or ENGL 125 (Select one)

Gr.	Cr.	Course	Description	Gr.	Cr.	Course	Description
_____	3	ENGL 120	College Composition II	_____	3	ENGL 125	Introduction to Professional Writing

#### Communications III

(3 credits) - COMM 110

Gr.	Cr.	Course	Description
_____	3	COMM 110	Fundamentals of Public Speaking

### Category II: ARTS & HUMANITIES

(6 Credits) - No more than 3 credits of Fine Arts may be used

Gr.	Cr.	Course	Description	Gr.	Cr.	Course	Description	Gr.	Cr.	Course	Description
_____	3	ART 110	Introduction to the Visual Art	_____	3	ENGL 262	American Literature II	_____	1	F MUSC 136	Brass Ensemble II
_____	3	F ART 122	Two-Dimensional Design	_____	3	ENGL 278	Alternative Literature	_____	1	F MUSC 137	Jazz Ensemble
_____	3	F ART 124	Three-Dimensional Design	_____	3	HIST 101	Western Civilization I	_____	1	F/* MUSC 138	Percussion Ensemble
_____	3	F ART 130	Drawing I	_____	3	HIST 102	Western Civilization II	_____	1	F MUSC 145	Applied Music
_____	3	ART 210	Art History I	_____	3	HIST 103	United States to 1877	_____	1	F MUSC 146	Applied Music - Major
_____	3	ART 211	Art History II	_____	3	HIST 104	United States Since 1877	_____	3	PHIL 101	Introduction to Philosophy
_____	3	F ART 220	Painting I	_____	3	HIST 211	World Civilizations to 1500	_____	3	PHIL 210	Ethics
_____	3	F ART 221	Painting II	_____	3	HIST 212	World Civilizations since 1500	_____	3	PHIL 220	Introduction to Logic
_____	3	F ART 230	Drawing II	_____	3	HIST 220	North Dakota History	_____	3	PHIL 250	Philosophy in Cinema
_____	3	F ART 250	Ceramics I	_____	3	HIST 222	History of the Western Frontier	_____	3	PHIL 253	Environmental Ethics
_____	3	F ART 251	Ceramics II	_____	3	HIST 224	American Studies I	_____	3	RELS 120	Religion in America
_____	2	F ART 265	Sculpture I	_____	3	HIST 225	American Studies II	_____	3	RELS 201	Life and Letters of Paul
_____	2	F ART 266	Sculpture II	_____	1-3	* HIST 243	Historical Investigations	_____	3	RELS 203	World Religions
_____	3	* CIS 280	Cyber Ethics	_____	3	HUMS 210	Integrated Cultural Studies	_____	3	RELS 220	Old Testament
_____	3	COMM 211	Oral Interpretation	_____	1-4	HUMS 211	Integrated Cultural Excursion	_____	3	RELS 230	New Testament
_____	3	ENGL 211	Introduction to Creative Writing	_____	2	HUMS 212	Integrated Cultural Enrichment	_____	4	SPAN 101	First Year Spanish I
_____	3	ENGL 221	Introduction to Drama	_____	3	MUSC 100	Music Appreciation	_____	4	SPAN 102	First Year Spanish II
_____	3	ENGL 222	Introduction to Poetry	_____	1	F MUSC 117	Concert Choir	_____	4	SPAN 201	Second Year Spanish I
_____	3	ENGL 233	Fantasy & Science Fiction	_____	1	F MUSC 118	Chamber Choir	_____	4	SPAN 202	Second Year Spanish II
_____	3	ENGL 236	Women & Literature	_____	1	F MUSC 121	String Ensemble	_____	3	THEA 110	Introduction to Theatre Arts
_____	3	ENGL 238	Children's Literature	_____	1	F MUSC 132	Wind Ensemble	_____	3	F THEA 161	Acting I
_____	3	ENGL 251	British Literature I	_____	1	F MUSC 133	Woodwind Ensemble I	_____	3	THEA 180	Dramatic Literature and Style I
_____	3	ENGL 252	British Literature II	_____	1	F MUSC 134	Woodwind Ensemble II	_____	3	THEA 181	Dramatic Literature and Style II

## General Education Requirements Continued

### Category III: SOCIAL & BEHAVIORAL SCIENCES

(6 Credits)

Gr.	Cr.		Gr.	Cr.		Gr.	Cr.	
3		ANTH 170 Physical Anthropology and Archeology	3		POLS 115 American Government	3		SOC 110 Introduction to Sociology
3		ANTH 171 Introduction to Cultural Anthropology	3		POLS 116 State and Local Government	3		SOC 115 Social Problems
3		CJ 201 Introduction to Criminal Justice	3		POLS 220 International Politics	3		SOC 220 Family
3		COMM 112 Understanding Media and Social Change	3		PSYC 100 Human Relations In Organizations	3		SOC 221 Minority Relations
3		COMM 212 Interpersonal Communications	3		PSYC 111 Introduction to Psychology	3		SOC 235 Cultural Diversity
3		ECON 105 Elements of Economics	3	*	PSYC 211 Introduction to Behavior Modification	3		SOC 251 Gerontology
3		ECON 201 Principles of Macroeconomics	3		PSYC 250 Developmental Psychology	3		SOC 252 Criminology
3		ECON 202 Principles of Macroeconomics	3	*	PSYC 261 Psychology of Adjustment	3		SOC 275 American Indian Studies
3		GEOG 161 World Regional Geography	3		PSYC 270 Abnormal Psychology	3		SWK 256 Development of Social Welfare

### Category IV: BUSINESS, MATH, SCIENCE & TECHNOLOGY

(9 Credits)

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

### Category V: PROGRAM SPECIFIC GENERAL EDUCATION REQUIREMENTS

(6 Credits) - Must be chosen from one of the following categories: Communications; Social & Behavioral Sciences; Arts & Humanities; and/or Business, Math, Science & Technology

Gr.	Cr.	Course	Gr.	Cr.	Course	Gr.	Cr.	Course
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## 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 a Bachelor of Applied Science degree.

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

## Degree Checklist

### Credits

- |                          |  |                          |   |
|--------------------------|--|--------------------------|---|
| _____                    | Earned a minimum of 3 credits in ENGL 110  | <input type="checkbox"/> | Earned at least 30 semester hours of institutional credit from BSC  |
| _____                    | Earned a minimum of 3 credits in ENGL 120 or ENGL 125                                    | <input type="checkbox"/> | Minimum of 2.00 institutional GPA (BSC only)  |
| _____                    | Earned a minimum of 3 credits in COMM 110  | <input type="checkbox"/> | Minimum of 2.00 cumulative GPA (BSC + Transfer)   |
| _____                    | Earned a minimum of 6 credits in Arts & Humanities <sup>2</sup>                          | <input type="checkbox"/> | Earned at least 30 semester hours of upper division (300/400) level courses                                       |
| _____                    | Earned a minimum of 6 credits in Social & Behavioral Sciences                            | <input type="checkbox"/> | Cleared all college obligations   |
| _____                    | Earned a minimum of 9 credits in Business, Math, Science & Technology                    | <input type="checkbox"/> | Satisfied all degree seeking admission requirements   |
| _____                    | Earned a minimum of 6 credits in Program Specific general education courses <sup>3</sup> | <input type="checkbox"/> | Filed an Application for Degree in the Academic Records Office immediately following enrollment in final semester |
| _____                    | Completed defined courses leading to an academic major                                   |                          |   |
| <input type="checkbox"/> | Earned a minimum of 120 credits <sup>4</sup>   |                          |   |

Advisor: \_\_\_\_\_

Office: \_\_\_\_\_

Phone: \_\_\_\_\_

Email: \_\_\_\_\_

<sup>1</sup> Programs may have specific General Education requirements; refer to your program degree plan

<sup>2</sup> No more than 3 hours of Fine Arts may be used

<sup>3</sup> Must be chosen from one of the following categories: Communications; Social & Behavioral Sciences; Arts & Humanities; and/or Business, Math, Science & Technology

<sup>4</sup> Academic Skills Courses (ASC) will not fulfill general education requirements, institutional credit requirements and cannot be included in the semester hours required for a Bachelor of Applied Science Degree