



**Energy Management**  
 Bachelor of Applied Science  
 Degree Plan 2021-2022

*\*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	
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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	
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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) 2021-2022 Catalog

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.	ENGL 110	College Composition I
_____	3	ENGL 110	College Composition I

#### Communications II

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

Gr.	Cr.	ENGL 120	College Composition II	Gr.	Cr.	ENGL 125	Introduction to Professional Writing (Required)
_____	3	ENGL 120	College Composition II	_____	3	ENGL 125	Introduction to Professional Writing (Required)

#### Communications III

(3 credits) - COMM 110

Gr.	Cr.	COMM 110	Fundamentals of Public Speaking
_____	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.	ARTS & HUMANITIES	Gr.	Cr.	ARTS & HUMANITIES	Gr.	Cr.	ARTS & HUMANITIES						
_____	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
_____	3		ENGL 261	American Literature I	_____	1	F	MUSC 135	Brass Ensemble I	_____	3	F	THEA 261	Acting II

## General Education Requirements Continued

### Category III: SOCIAL & BEHAVIORAL SCIENCES

(6 Credits)

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

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

(9 Credits)

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

## 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

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

## Degree Checklist

### Credits

- Earned a minimum of 3 credits in ENGL 110
- Earned a minimum of 3 credits in ENGL 120 or ENGL 125
- Earned a minimum of 3 credits in COMM 110
- Earned a minimum of 6 credits in Arts & Humanities <sup>2</sup>
- Earned a minimum of 6 credits in Social & Behavioral Sciences
- Earned a minimum of 9 credits in Business, Math, Science & Technology
- Earned a minimum of 6 credits in Program Specific general education courses <sup>3</sup>
- Completed defined courses leading to an academic major
- Earned a minimum of 120 credits <sup>4</sup>

- Earned at least 30 semester hours of institutional credit from BSC
- Minimum of 2.00 institutional GPA (BSC only)
- Minimum of 2.00 cumulative GPA (BSC + Transfer)
- Earned at least 30 semester hours of upper division (300/400) level courses
- Cleared all college obligations
- Satisfied all degree seeking admission requirements
- Filed an Application for Degree in the Academic Records Office immediately following enrollment in final semester

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