



**Energy Management**  
 Bachelor of Applied Science  
 Degree Plan 2022--2023

*\*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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**Arts & Humanities (6)**

1.	3
2.	3

**Business, Math, Science & Technology (18)**

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

**Business, Math, Science & Technology (3)**

(Select one Science or Technology course, lab not required)

1.	3
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**Communications (9)**

ENGL 110	College Composition I (required)	3
ENGL 125	Introduction to Professional Writing	3
COMM 110	Fundamentals of Public Speaking	3

**Social and Behavioral Science (6)**

ECON 201	Principles of Microeconomics	3
ECON 202	Principles of Macroeconomics	3

**Total Credits 42**

Technical Foundation Courses	
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**Total Credits 48**

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	Public Policy and Sustainability	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

**Total Credits 30**

**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) 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
		Physical Anthropology and Archeology			American Government			Introduction to Sociology
3		ANTH 171	3		POLS 116	3		SOC 115
		Introduction to Cultural Anthropology			State and Local Government			Social Problems
3		CJ 201	3		POLS 220	3		SOC 220
		Introduction to Criminal Justice			International Politics			Family
3		COMM 112	3		PSYC 100	3		SOC 221
		Understanding Media and Social Change			Human Relations In Organizations			Minority Relations
3		COMM 212	3		PSYC 111	3		SOC 235
		Interpersonal Communications			Introduction to Psychology			Cultural Diversity
3		ECON 105	3	*	PSYC 211	3		SOC 251
		Elements of Economics			Introduction to Behavior Modification			Gerontology
3		ECON 201	3		PSYC 250	3		SOC 252
		Principles of Microeconomics			Developmental Psychology			Criminology
3		ECON 202	3	*	PSYC 261	3		SOC 275
		Principles of Macroeconomics			Psychology of Adjustment			American Indian Studies
3		GEOG 161	3		PSYC 270	3		SWK 256
		World Regional Geography			Abnormal Psychology			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
		Elements of Accounting I			Introductory Chemistry/Lab			Discrete Mathematics
3	*	ACCT 201	4/1		CHEM 116	3		MATH 210
		Elements of Accounting II			Intro to Organic & Biochemistry/Lab			Elementary Statistics
3/1		ASTR 150	4/1		CHEM 121	4	*	MATH 277
		Meteorology/Lab			General Chemistry I/Lab			Math for Elementary Teachers I
3	*	BADM 202	4/1		CHEM 122	3/1		MICR 202
		Principles of Management			General Chemistry II/Lab			Introductory Microbiology/Lab
3	*	BADM 281	3	*	CIS 147	3	*	NUTR 240
		Organizational Behavior			Principles of Information Security			Principles of Nutrition
3	*	BADM 282	4	*	CIS 164	3/1		PHYS 100
		Human Resource Mgmt			Networking Fundamentals I			Concepts of Physics/Lab
1	*	BIOL 102	3		CSCI 101	3/1		PHYS 110
		Introduction to Aquarium Keeping			Introduction to Computers			Introduction to Astronomy/Lab
3		BIOL 109	3		CSCI 122	3/1		PHYS 211
		Living World			Beginning Visual Basic			College Physics I/Lab
3/1		BIOL 111	4		CSCI 160	3/1		PHYS 212
		Concepts of Biology/Lab			Computer Science I			College Physics II/Lab
3/1		BIOL 115	4		CSCI 161	4/1		PHYS 251
		Concepts of Anatomy & Physiology/Lab			Computer Science II			University Physics I/Lab
3		BIOL 124	3/1		GEOG 121	4/1		PHYS 252
		Environmental Science			Physical Geography/Lab			University Physics II/Lab
3/1		BIOL 125	3/1		GEOG 102	2/1		PLSC 110
		Introduction to Ecology/Lab			Historical Geology/Lab			World Food Crops/Lab
3/1		BIOL 126	3/1		GEOG 105	3/1		SCNC 101
		Human Biology/Lab			Physical Geology/Lab			Physical Science I/Lab (Biology & Chemistry)
3/1		BIOL 150	3		GIS 105			SCNC 102
		General Biology I/Lab			Fundamentals of GIS			Physical Science II/Lab (Physics & Geology)
3/1		BIOL 151	3	*	GIS 107	3/1		SCNC 103
		General Biology II/Lab			GIS Applications			Physical Science III/Lab (Astronomy & Meteorology)
3/1		BIOL 170	4		MATH 103	3/1		SOIL 210
		General Zoology/Lab			College Algebra			Introduction to Soil Science/Lab
3/1		BIOL 220	3	*	MATH 104			
		Anatomy & Physiology I/Lab			Finite Math			
3/1		BIOL 221	2		MATH 105			
		Anatomy & Physiology II/Lab			Trigonometry			
3/1		BIOL 250	4		MATH 107	2/1	*	
		Survey-Tropical Biology/Lab			Pre-Calculus			
3/1		BOT 170	3	*	MATH 137			
		Plant Form & Diversity/Lab			Applied Algebra			
3/1		CHEM 110	3		MATH 146			
		Survey of Chemistry/Lab			Applied Calculus I			
3/1		CHEM 112	4		MATH 165			
		Introduction to Forensic Science/Lab			Calculus I			
3/1		CHEM 114	4		MATH 166			
		Chemistry in Art/Lab			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

## 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