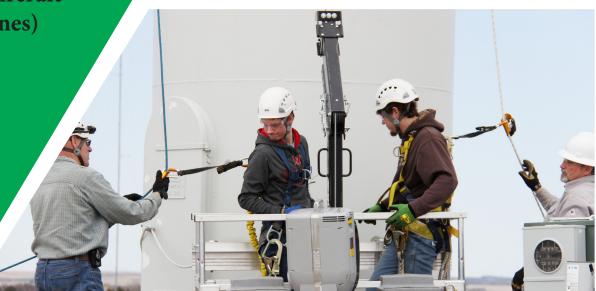
Focus Areas:
Wind Energy,
Solar Energy,
Blade Repair,
Substation,
Unmanned Aircraft
Systems (Drones)

RENEWABLE ENERGY

Department Chair: Kit Thompson *kthompson@cloud.edu* •• 785.243.1435, *ext*.



Recent graduates hired as:

- Wind Farm Technician
- Substation Technician
- Blade Repair Technician
- Wind Farm Manager
- Solar Array Technician
- Drone Pilot

Degrees & Certificates

Solar Energy	33-hour certificate	Wind Energy Technology16-hour certificate
Solar Energy	A.A.S 64 hours	Substation Technician33-hour certificate
sUAS (Drones)	18-hour certificate	Wind Energy Technology33-hour certificate
sUAS (Drones)	30-hour certificate	Wind Energy Technology A.A.S - 64 hours
sUAS (Drones)	A.A.S 62 hours	Associate of General Studies A.G.S 62 hours
Blade Repair	16-hour certificate	Associate of Science A.S 62 hours

Program Learning Outcomes

Wind Energy Technology:

16-hour Certificate

- 1. Students will explain all general safety guidelines related to the wind energy industry.
- 2. Students will summarize all aspects of the fundamental operation of a wind turbine and its relationship relative to a wind farm.
- 3. Students will summarize the extensive aspects of the wind industry; computer technology, personal communications, teamwork, and environmental issues.

33-hour Certificate

- 1. Students will safely operate, maintain, troubleshoot, and repair mechanical systems.
- 2. Students will safely operate, maintain, troubleshoot, and repair electrical systems.
- 3. Students will safely operate, maintain, troubleshoot, and repair hydraulic systems.
- Students will demonstrate the extensive skill sets of the wind industry; computer technology, personal communications, and teamwork.

Associate of Applied Science

- 1. Students will explain and comply with all OSHA safety standards related to the wind energy industry.
- 2. Students will describe electrical transmission from a wind turbine, through a wind farm, and exiting a collection substation.
- Students will troubleshoot and optimize wind farm performance through the collection and interpretation of data.

sUAS:

18-hour Certificate

- 1. Students will explain a sectional chart and identify different airspace.
- 2. Students will match different platforms and sensor payloads with their appropriate missions.
- Students will identify and describe all of the individual components of the sUAS and explain how they integrate into its system.

30-hour Certificate:

- 1. Students will use a sectional chart to comply with different airspace restrictions.
- 2. Students will program and perform an autonomous sUAS mission.
- 3. Students will describe and implement a scheduled and as needed maintenance strategy for various sUAS platforms.

Associate of Applied Science

- 1. Students will describe and evaluate the impact of recent legislation dealing with sUAS.
- 2. Students will evaluate and select the appropriate platform and sensor payload for the required mission.
- 3. Students will analyze and compare all of the individual components of the sUAS and assess system integration.

Solar Energy:

33-hour Certificate

- 1. Students will identify the various safety hazards associated with PV systems and components.
- 2. Students will identify common types of PV system application with and without energy storage.
- 3. Students will describe the purpose and principles of operation for major PV system components.
- Students will explain how PV modules are configured in series and parallel to build voltage, current, and power output.
- Students will identify the requirements for plan review, permitting, inspections, construction contracts and other matters associated with approvals and code-compliance for PV systems.
- Students will describe project side considerations, including common roof structural design, types of electrical services, point of interconnection, effects of obstructions, shading analysis tools and techniques, and effects of wind exposure.

Associate of Applied Science

- 1. Students will comply with all safety regulations associated with PV systems and components.
- 2. Students will analyze and compare different types of PV system application with and without energy storage.
- 3. Students will troubleshoot PV system components.
- Students will configure and optimize PV modules in series and parallel to build voltage, current, and power output.
- Students will demonstrate the required steps for plan review, permitting, inspections, construction contracts and other matters associated with approvals and codecompliance for PV systems.
- 6. Students will formulate and assess PV solutions to project site considerations, including common roof structural design, types of electrical services, point of interconnection, effects of obstructions, shading analysis tools and techniques, and effects of wind exposure.

Program Learning Outcomes

Renewable Energy:

Associate of General Studies

- Students will apply the knowledge and skills from multiple disciplines with renewable energy to be prepared for opportunities in governmental policy, entrepreneurship, or technical professions.
- 2. Students will identify the various safety hazards associated with PV systems and components.
- 3. Students will identify common types of PV system application with and without energy storage.
- 4. Students will describe the purpose and principles of operation for major PV system components.
- 5. Asset Selection: Students will evaluate and select the appropriate platform and sensor payload for the required mission.
- 6. Industry Trends and Literacy: Students will describe and evaluate the impact of recent legislation dealing with sUAS
- 7. System Literacy: Students will analyze and compare all of the individual components of the sUAS and assess system integration.
- 8. Students will explain all general safety guidelines related to the wind energy industry.
- 9. Students will summarize all aspects of the fundamental operation of a wind turbine and its relationship relative to a wind farm.
- 10. Students will summarize the extensive aspects of the wind industry; computer technology, personal communications, teamwork, and environmental issues.
- 11. Students will safely operate, maintain, troubleshoot, and repair electrical systems.

Associate of Science

- 1. Students will apply the knowledge and skills from multiple disciplines with renewable energy. to be prepared for further study in an advanced degree.
- 2. Students will identify the various safety hazards associated with PV systems and components.
- 3. Students will identify common types of PV system application with and without energy storage.
- 4. Students will describe the purpose and principles of operation for major PV system components.
- 5. Students will evaluate and select the appropriate platform and sensor payload for the required mission.
- 6. Students will describe and evaluate the impact of recent legislation dealing with sUAS.
- 7. System Literacy: Students will analyze and compare all of the individual components of the sUAS and assess system integration.
- 8. Students will explain all general safety guidelines related to the wind energy industry.
- 9. Students will summarize all aspects of the fundamental operation of a wind turbine and its relationship relative to a wind farm.
- 10. Students will summarize the extensive aspects of the wind industry; computer technology, personal communications, teamwork, and environmental issues.
- 11. Students will safely operate, maintain, troubleshoot, and repair electrical systems.



Solar Energy 33-Hour Certificate

Commi	ınication Requirement	3	
CM1	15 Public Speaking (3 cr) or		
CN.	[240 Interpersonal Communications (3 cr)		
Mathen	natics Requirement	3	
MA10	04 Technical Math (3 cr) or		
N	IA110 Intermediate Algebra (3 cr) or		
N	lathematics General Education Course		
Require	ed Solar Energy Courses		21 c
SE100	Introduction to Solar Energy	3	
SE101	Solar Energy Fundamentals	3	
SE102	Solar Energy Design	3	
SE103	Solar Energy Operations & Maintenance	3	
WE105	Employability Skills, Safety, & Blueprint Reading	3	
WE110	Electrical Theory	3	
WE250	Data Acquisition & Communications	3	
	=		

General Education Required Courses

Elective	e Courses	6 c
BE160	Business Accounting	3
BE170	Business Statistics	3
CS108	Computer Applications	3
CS155	Networking and Computer Technology	3
CS140	Introduction to Robotics	3
MG102	Introduction to Entrepreneurship	3
UA100	Introduction to sUAS	3
UA110	sUAS Ground School	3
SC109	Applied Physics	3
WE100	Introduction to Wind Energy	3
WE210	Electronics	3
WE225	Motors, Generators, PLC's	3
WE230	Substation & Voltage Regulation	3
WE270	Transformer Theory	3
WE280	Wind Energy Technology Internship	1-4



Renewable Energy

Solar EnergyAssociate of Applied Science
64 Hours

General Education Requ	uired Courses	19 cr	Requi i	red Solar Courses	36 cr
		6	SE100	Introduction to Solar Energy	3
CM101 English Composit			SE101	Solar Energy Fundamentals	3
CM120 Survey of Tecl			SE102	Solar Energy Design	3
CM115 Public Speaking (SE103	Solar Energy Operations & Maintenance	3
CM240 Interpersonal (SE201	Advanced Solar Energy Design	3
_		2	SE202	Advanced Solar Energy Installation	3
Humanities Requirement	(1area required)	3	SE203	Solar Energy System Commissioning	3
Art Music	Humanities Literature		SE204	Solar Energy Advanced Operations & Mainte	enance3
Theatre			WE105	Employability Skills, Safety, & Blueprint Read	
Foreign Language	Philosophy History		WE110	Electrical Theory	3
Poreign Language	1118t01 y		WE210	Electronics	3
Mathematics Requirement		3	WE250	Data Acquisition & Communications	3
MA104 Technical Math (3 cr) or			•	
MA110 Intermediate Algebra (3 cr) or			Electiv	ve Courses	9 cr
Mathematics General 1	Education Course		BE160	Business Accounting	3
Natural Science Requireme	nt	4	BE170	Business Statistics	3
SC107 Meteorology (4 cr) or		T	CS108	Computer Applications	3
SC137 Natural Hazards an			CS140	Introduction to Robotics	3
	ds and Disasters Lab (1	cr) or	CS155	Networking and Computer Technology	3
SC146 Environmental Sci			MG102	Introduction to Entrepreneurship	3
	l Science & Conservation		SC109	Applied Physics	3
3C147 Environmenta	i science & Consei vatio	on Lab (1 ci)	UA100	Introduction to sUAS	3
Social/Behavioral Science I	Requirement	3	UA110	sUAS Ground School	3
(1 area required)			WE100	Introduction to Wind Energy	3
Economics	Anthropology		WE225	Motors, Generators, PLC's	3
Psychology	Political Science		WE230	Substation & Voltage Regulation	3
Sociology Geography			WE270	Transformer Theory	3
			WE280	Wind Energy Technology Internship	1-4



sUAS Remote Pilot(Drones)

	6 cr
3	
3	
	9 cr
3	
3	
3	
	3 cr
_	
3	
	3 3 3 3



sUAS (Drones)

OCHEL 6	ai Education Required Courses		UC
CM1	unication Requirement 101 English Composition I (3 cr) or CM120 Survey of Technical Writing (3 cr)	3	
MA1	matics Requirement 104 Technical Math or MA110 Intermediate Algebra or Mathematics General Education Course	3	
Requir	ed sUAS Courses		18 c
UA110	sUAS Ground School	3	
UA140	sUAS Applications	3	
UA150	sUAS Personnel, Safety, & Crew Resource Mgmt	3	
UA201	sUAS Command, Control, & Communications	3	
UA210	sUAS Systems & Conceptual Design	3	
WE240	GIS/GPS	3	

Electiv	e Courses		6 cr
AG255	Precision Ag Hardware	3	
AG256	Precision Ag Software	3	
AR129	Introduction to Digital Photography	3	
CS140	Introduction to Robotics	3	
CS141	Introduction to Additive Manufacturing		
	(3D Printing)	3	
CS145	Introduction to CAD	3	
EC101	Introduction to Macroeconomics	3	
MG102	Introduction to Entrepreneurship	3	
UA100	Introduction to sUAS	3	
WE110	Electrical Theory	3	
WE250	Data Acquisition & Communications	3	
WE280	Wind Energy Technology Internship	4	



sUAS (Drones)

Associate of Applied Science 62 Hours

General Education Required Courses	19 cr
Communication Requirement CM101 English Composition I (3 cr) or CM120 Survey of Technical Writing (3 cr) CM115 Public Speaking (3 cr) or CM240 Interpersonal Communication (3 cr)	6
Humanities Requirement (1 area required) Art Humanities Music Literature Theatre Philosophy Foreign Language History	3
Mathematics Requirement MA104 Technical Math (3 cr) or MA110 Intermediate Algebra (3 cr) or Mathematics General Education Course	3
Natural Science Requirement SC107 Meteorology (4 cr) recommended	4
Social/Behavioral Science Requirement SS101 General Psychology recommended	3

Requir	red Courses	27 cı
UA100		3
UA110	sUAS Ground School	3
UA140	sUAS Applications	3
UA150		3
UA201		3
UA210	sUAS Systems & Conceptual Design	3
WE240	GIS/GPS	3
WE250	Data Acquisition and Communications	3
WE255	Airfoils and Composite Repair	3
Electiv	e Courses	16 c
AG255	Precision Ag Hardware	3
AG256	Precision Ag Software	3
AR129	Introduction to Digital Photography	3
CS140	Introduction to Robotics	3
CS141	Introduction to Additive Manufacturing	
	(3D Printing)	3
CS145	Introduction to CAD	3
CS155	Networking & Computer Technology	3
EC101	Principles of Macroeconomics	3
MG102	Introduction to Entrepreneurship	3
SC109	Applied Physics	3
WE110	Electrical Theory	3
WE280	Wind Energy Technology Internship	4



Blade Repair 16-Hour Certificate

General Education Required Courses 3 cr Communication Requirement 3 CM101 English Composition I (3 cr) or CM120 Survey of Technical Writing (3 cr)

Required Blade Repair Courses		13 cr
WE100	Introduction to Wind Energy	3
WE255	Airfoils and Composite Repair	3
WE257	Applied Airfoils	3
*WE262	Blade Repair Operations	4

^{*}Must have a physical on file prior to enrolling in this class.



Wind Energy Technology

16-Hour Certificate

General Education Required Courses CM101 English Composition (3 cr) or 3 CM120 Survey of Technical Writing (3 cr) or MA104 Technical Math (3 cr) or MA110 Intermediate Algebra (3 cr) or Mathematics General Education Course Required Wind Energy Courses WE100 Introduction to Wind Energy 3

Elective	e Courses		10 cr
CS140	Introduction to Robotics	3	
CS155	Networking & Computer Technology	3	
SE100	Introduction to Solar Energy	3	
UA100	Introduction to sUAS	3	
UA110	sUAS Ground School	3	
WE110	Electrical Theory	3	
WE120	Hydraulics	3	
WE150	Mechanical Systems	3	
WE210	Electronics	3	
WE225	Motors, Generators, PLC's	3	
WE250	Data Acquisition & Communications	3	
WE255	Airfoils and Composite Repair	3	
*WE265	Field Training & Project Operations	3	
WE280	Wind Energy Technology Internship	1-4	

^{*}Must have a physical on file prior to enrolling in this class.



Substation Technician

General Education Required Courses		6 cr
Communication Requirement CM101 English Composition I (3 cr) or CM120 Survey of Technical Writing (3 cr) or CM115 Public Speaking (3 cr) or CM240 Interpersonal Communications (3 cr)	3	
Mathematics Requirement MA104 Technical Math (3 cr) or MA110 Intermediate Algebra (3 cr) or Mathematics General Education Course	3	

Required Substation Courses				
WE105	Employability Skills, Safety, & Blueprint			
	Reading	3		
WE110	Electrical Theory	3		
WE202	Electrical Power Delivery	3		
WE215	Electrical System Protection & Coordination	3		
WE225	Motors, Generators, PLC's	3		
WE230	Substation & Voltage Regulation	3		
WE250	Data Acquisition & Communications	3		
WE270	Transformer Theory	3		
Electiv	e Courses		3 cr	
SE100	Introduction to Solar Energy	3		
UA110	sUAS Ground School	3		
WE100	Introduction to Wind Energy	3		
WE210	Electronics	3		



Renewable Energy

Wind Energy Technology

General Education Required Courses		6 cı
Communication Requirement	3	
CM101 English Composition I (3 cr) or		
CM120 Survey of Technical Writing (3 cr)		
Mathematics Requirement	3	
MA104 Technical Math (3 cr) or		
MA110 Intermediate Algebra (3 cr) or		
Mathematics General Education Course		

Required Wind Energy Courses				
WE100	Introduction to Wind Energy	3		
WE110	Electrical Theory	3		
WE120	Hydraulics	3		
WE150	Mechanical Systems	3		
WE210	Electronics	3		
WE225	Motors, Generators, PLC's	3		
*WE265	Field Training & Project Operations	3		

Elective Courses				
CS140	Introduction to Robotics	3		
CS155	Networking & Computer Technology	3		
SE100	Introduction to Solar Energy	3		
UA100	Introduction to sUAS	3		
UA110	sUAS Ground School	3		
WE230	Substation & Voltage Regulation	3		
WE250	Data Acquisition & Communications	3		
WE255	Airfoils and Composite Repair	3		
WE280	Wind Energy Technology Internship	1-4		

^{*}Must have a physical on file prior to enrolling in this course.



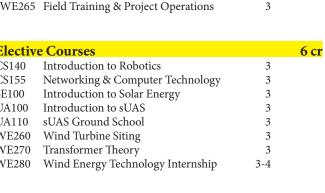
WIND ENERGY TECHNOLOGY (WET)

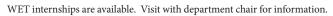
Associate of Applied Science 64 Hours

General Education Required Courses	19 cr
Communication Requirement CM101 English Composition I (3 cr) or CM120 Survey of Technical Writing (3) CM115 Public Speaking (3 cr) or CM240 Interpersonal Communication (3 cr)	6
Humanities Requirement (1 area required) Art Humanities Music Literature Theatre Philosophy Foreign Language History	3
Mathematics Requirement MA104 Technical Math (3 cr) or MA110 Intermediate Algebra (3 cr) or Mathematics General Education Course	3
Natural Science Requirement SC107 Meteorology (4 cr)	4
Social/Behavioral Science Requirement SS101 General Psychology (3 cr)	3

Requir	ed Wind Courses		39 cr
SC109	Applied Physics	3	
WE100	Introduction to Wind Energy	3	
WE105	Employability Skills, Safety, & Blueprint		
	Reading	3	
WE110	Electrical Theory	3	
WE120	Hydraulics	3	
WE150	Mechanical Systems	3	
WE210	Electronics	3	
WE225	Motors, Generators, PLC's	3	
WE230	Substation & Voltage Regulation	3	
WE240	GIS/GPS	3	
WE250	Data Acquisition & Communications	3	
WE255	Airfoils and Composite Repair	3	
*WE265	Field Training & Project Operations	3	

Elective Courses				
CS140	Introduction to Robotics	3		
CS155	Networking & Computer Technology	3		
SE100	Introduction to Solar Energy	3		
UA100	Introduction to sUAS	3		
UA110	sUAS Ground School	3		
WE260	Wind Turbine Siting	3		
WE270	Transformer Theory	3		
WE280	Wind Energy Technology Internship	3-4		





^{*}Must have a physical on file prior to enrolling in this course.



Renewable Energy

Associate of General Studies 62 Hour

Requir	ed General Educ	ation Courses	2	25 cr	Energy Technology	
	unication Requirem		6	IE117	OSHA 10-Hour General Industry Training	1
	01 English Composit			SE101	Solar Energy Fundamentals	3
	CM120 Survey of Tech			SE102	Solar Energy Design	3
	15 Public Speaking (SE103	Solar Energy Operations & Maintenance	3
(CM240 Interpersonal	Communications (3 cr)		SE201	Advanced Solar Energy Design	3
				SE202	Advanced Solar Energy Installation	3
	matics Requirement		3	SE203	Solar Energy System Commissioning	3
	nematics General Edu			SE204	Solar Energy Advanced O&M	3
N	MA110 Intermediate	Algebra (3 cr)		UA201	sUAS Command, Control, and Communication	3
Нитан	nities Requirement		3	UA210	sUAS Systems & Conceptual Design	3
Art		Humanities	-	WE105	Employability Skills, Safety, & Blueprint Reading	3
Musi	ic	Literature		WE120	Hydraulics	3
Thea	tre	Philosophy		WE150	Mechanical Systems	3
Fore	ign Language	History		WE202	Electrical Power Delivery	3
					Electronics	3
Social/.	Behavioral Science I		3		Electrical System Protection and Coordination	3
	nomics	Anthropology		WE220	Cooperative Ed Internship	3
	hology	Political Science		WE225	Motors, Generators, PLC's	3
Socio	ology	Geography		WE227	PLC's	3
Human	nities or Social Scien	ice Requirement	3	WE230	Substation & Voltage Regulation	3
	st be from second area,		3	WE240	GIS/GPS	3
(IVIUS	si ve jivin secona area,			WE250	Data Acquisition & Communication	3
Natura	ıl Science Requireme	nt	4	WE255	Airfoils & Composite Repair	3
	ical Science w/lab or	111	-1	WE257		3
	Biological Science w/la	nh		*WE262	Blade Repair Operations	3
	_				Field Training & Project Operations	3
Open (General Education E	lective	3		Transformer Theory	3
ъ .	1n 11 n	0	1	WE280	Wind Energy Technology Internship	1-4
	red Renewable En			2 cr	Additional Elections	
SE100	Introduction to Sola		3	CC100	Additional Electives Computer Applications	2
$I \perp \Delta \perp (100)$		S	3	CS108	Computer Applications	3
UA100	Introduction to sUA			00155		2
WE100	Introduction to Win	d Energy	3	CS155	Networking and Computer Technology	3
WE100		d Energy		MA114	Networking and Computer Technology Elementary Statistics	3
WE100 WE110	Introduction to Win Electrical Theory	d Energy	3	MA114 SC107	Networking and Computer Technology Elementary Statistics Meteorology	3 4
WE100 WE110	Introduction to Win Electrical Theory Te Courses	d Energy	3	MA114	Networking and Computer Technology Elementary Statistics	3
WE100 WE110 Electiv	Introduction to Win Electrical Theory Ce Courses Business	d Energy	3 3	MA114 SC107	Networking and Computer Technology Elementary Statistics Meteorology Applied Physics	3 4
WE100 WE110 Electiv BE100	Introduction to Win Electrical Theory e Courses Business Introduction to Busi	d Energy ness	3 3 19	MA114 SC107 SC109	Networking and Computer Technology Elementary Statistics Meteorology Applied Physics Life Skills	3 4 3
WE100 WE110 Electiv BE100 BE152	Introduction to Win Electrical Theory Courses Business Introduction to Business Salesmanship	d Energy ness	3 3 3 3	MA114 SC107 SC109 BE139	Networking and Computer Technology Elementary Statistics Meteorology Applied Physics Life Skills Basic Personal Finance	3 4 3
WE100 WE110 Electiv BE100 BE152 BE154	Introduction to Win Electrical Theory e Courses Business Introduction to Business Salesmanship Business Law	d Energy ness	3 3 3 3 3 3	MA114 SC107 SC109 BE139 BE210	Networking and Computer Technology Elementary Statistics Meteorology Applied Physics Life Skills Basic Personal Finance Leadership Development	3 4 3
WE100 WE110 Electiv BE100 BE152 BE154 BE155	Introduction to Win Electrical Theory The Courses Business Introduction to Business Salesmanship Business Law Marketing	d Energy ness	3 3 3 3 3 3 3	MA114 SC107 SC109 BE139 BE210 PE141	Networking and Computer Technology Elementary Statistics Meteorology Applied Physics Life Skills Basic Personal Finance Leadership Development Personal Wellness	3 4 3 1 3 3
WE100 WE110 Electiv BE100 BE152 BE154 BE155 BE160	Introduction to Win Electrical Theory e Courses Business Introduction to Business Salesmanship Business Law Marketing Business Accounting	d Energy ness	3 3 3 3 3 3 3 3 3	MA114 SC107 SC109 BE139 BE210 PE141 PE250	Networking and Computer Technology Elementary Statistics Meteorology Applied Physics Life Skills Basic Personal Finance Leadership Development Personal Wellness Stress Management	3 4 3 1 3 3 3
WE100 WE110 Electiv BE100 BE152 BE154 BE155 BE160 BE170	Introduction to Win Electrical Theory The Courses Business Introduction to Business Salesmanship Business Law Marketing Business Accounting Business Statistics	d Energy ness	3 3 3 3 3 3 3 3 3 3	MA114 SC107 SC109 BE139 BE210 PE141	Networking and Computer Technology Elementary Statistics Meteorology Applied Physics Life Skills Basic Personal Finance Leadership Development Personal Wellness	3 4 3 1 3 3
WE100 WE110 Electiv BE100 BE152 BE154 BE155 BE160 BE170 BE185	Introduction to Win Electrical Theory The Courses Business Introduction to Business Salesmanship Business Law Marketing Business Accounting Business Statistics Human Resource M	d Energy ness g	3 3 3 3 3 3 3 3 3 3 3 3	MA114 SC107 SC109 BE139 BE210 PE141 PE250 SS106	Networking and Computer Technology Elementary Statistics Meteorology Applied Physics Life Skills Basic Personal Finance Leadership Development Personal Wellness Stress Management Marriage and Family	3 4 3 1 3 3 3 3
WE100 WE110 Electiv BE100 BE152 BE154 BE155 BE160 BE170 BE185 BE188	Introduction to Win Electrical Theory The Courses Business Introduction to Business Salesmanship Business Law Marketing Business Accounting Business Statistics Human Resource M Principles of Advertises	ness g anagement ising	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	MA114 SC107 SC109 BE139 BE210 PE141 PE250 SS106	Networking and Computer Technology Elementary Statistics Meteorology Applied Physics Life Skills Basic Personal Finance Leadership Development Personal Wellness Stress Management	3 4 3 1 3 3 3
WE100 WE110 Electiv BE100 BE152 BE154 BE155 BE160 BE170 BE185 BE188 EC101	Introduction to Win Electrical Theory The Courses Business Introduction to Business Salesmanship Business Law Marketing Business Accounting Business Statistics Human Resource M Principles of Adverting Principles of Macroe	ness anagement sing economics	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	MA114 SC107 SC109 BE139 BE210 PE141 PE250 SS106	Networking and Computer Technology Elementary Statistics Meteorology Applied Physics Life Skills Basic Personal Finance Leadership Development Personal Wellness Stress Management Marriage and Family	3 4 3 1 3 3 3 3
WE100 WE110 Electiv BE100 BE152 BE154 BE155 BE160 BE170 BE185 BE188 EC101 EC102	Introduction to Win Electrical Theory The Courses Business Introduction to Business Law Marketing Business Accounting Business Statistics Human Resource M Principles of Adverting Principles of Macroe Principles of Microe	ness anagement ising economics conomics	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	MA114 SC107 SC109 BE139 BE210 PE141 PE250 SS106 Open I	Networking and Computer Technology Elementary Statistics Meteorology Applied Physics Life Skills Basic Personal Finance Leadership Development Personal Wellness Stress Management Marriage and Family Electives	3 4 3 1 3 3 3 3 6 cr
WE100 WE110 Electiv BE100 BE152 BE154 BE155 BE160 BE170 BE185 BE188 EC101 EC102 MG101	Introduction to Win Electrical Theory The Courses Business Introduction to Business Law Marketing Business Accounting Business Statistics Human Resource M Principles of Adverting Principles of Macroe Principles of Microe Management Principles	ness anagement ising economics conomics obles	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	MA114 SC107 SC109 BE139 BE210 PE141 PE250 SS106 Open I	Networking and Computer Technology Elementary Statistics Meteorology Applied Physics Life Skills Basic Personal Finance Leadership Development Personal Wellness Stress Management Marriage and Family	3 4 3 1 3 3 3 3 6 cr
WE100 WE110 Electiv BE100 BE152 BE154 BE155 BE160 BE170 BE185 BE188 EC101 EC102	Introduction to Win Electrical Theory The Courses Business Introduction to Business Law Marketing Business Accounting Business Statistics Human Resource M Principles of Adverting Principles of Macroe Principles of Microe	ness anagement ising economics conomics obles	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	MA114 SC107 SC109 BE139 BE210 PE141 PE250 SS106 Open I	Networking and Computer Technology Elementary Statistics Meteorology Applied Physics Life Skills Basic Personal Finance Leadership Development Personal Wellness Stress Management Marriage and Family Electives	3 4 3 1 3 3 3 3 6 cr
WE100 WE110 Electiv BE100 BE152 BE154 BE155 BE160 BE170 BE185 BE188 EC101 EC102 MG101	Introduction to Win Electrical Theory The Courses Business Introduction to Business Law Marketing Business Accounting Business Statistics Human Resource M Principles of Adverting Principles of Macroe Principles of Microe Management Principles Introduction to Entre	ness anagement sing economics conomics ples epreneurship	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	MA114 SC107 SC109 BE139 BE210 PE141 PE250 SS106 Open I	Networking and Computer Technology Elementary Statistics Meteorology Applied Physics Life Skills Basic Personal Finance Leadership Development Personal Wellness Stress Management Marriage and Family Electives	3 4 3 1 3 3 3 3 6 cr
WE100 WE110 Electiv BE100 BE152 BE154 BE155 BE160 BE170 BE185 BE188 EC101 EC102 MG101 MG102	Introduction to Win Electrical Theory The Courses Business Introduction to Business Law Marketing Business Accounting Business Statistics Human Resource M Principles of Adverting Principles of Macroe Principles of Microe Management Principles Introduction to Entre Political Science as	ness anagement sing economics conomics bles epreneurship and History	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	MA114 SC107 SC109 BE139 BE210 PE141 PE250 SS106 Open I	Networking and Computer Technology Elementary Statistics Meteorology Applied Physics Life Skills Basic Personal Finance Leadership Development Personal Wellness Stress Management Marriage and Family Electives	3 4 3 1 3 3 3 3 6 cr
WE100 WE110 BE100 BE152 BE154 BE155 BE160 BE170 BE185 BE188 EC101 EC102 MG101 MG102	Introduction to Win Electrical Theory The Courses Business Introduction to Business Introduction to Business Law Marketing Business Accounting Business Statistics Human Resource M Principles of Adverting Principles of Macroe Principles of Microe Management Princip Introduction to Entre Political Science as US History I	ness anagement sising economics conomics bles epreneurship and History	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	MA114 SC107 SC109 BE139 BE210 PE141 PE250 SS106 Open I	Networking and Computer Technology Elementary Statistics Meteorology Applied Physics Life Skills Basic Personal Finance Leadership Development Personal Wellness Stress Management Marriage and Family Electives	3 4 3 1 3 3 3 3 6 cr
WE100 WE110 BE100 BE152 BE154 BE155 BE160 BE170 BE185 BE188 EC101 EC102 MG101 MG102 HI122 HI123	Introduction to Win Electrical Theory The Courses Business Introduction to Business Introduction to Business Law Marketing Business Accounting Business Statistics Human Resource Mericiples of Adverting Principles of Macroe Principles of Microe Management Principles of Introduction to Entre Political Science and US History I US History II	ness anagement sing economics conomics bles epreneurship and History	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	MA114 SC107 SC109 BE139 BE210 PE141 PE250 SS106 Open I	Networking and Computer Technology Elementary Statistics Meteorology Applied Physics Life Skills Basic Personal Finance Leadership Development Personal Wellness Stress Management Marriage and Family Electives	3 4 3 1 3 3 3 3 6 cr
WE100 WE110 BE100 BE152 BE154 BE155 BE160 BE170 BE185 BE188 EC101 EC102 MG101 MG102 HI122 HI123 SS130	Introduction to Win Electrical Theory The Courses Business Introduction to Business Law Marketing Business Accounting Business Statistics Human Resource M Principles of Adverting Principles of Microe Management Principles of Microe Management Principles Introduction to Entre Political Science at US History I US History II Introduction to Soci	ness anagement sising economics conomics ples epreneurship and History	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	MA114 SC107 SC109 BE139 BE210 PE141 PE250 SS106 Open I	Networking and Computer Technology Elementary Statistics Meteorology Applied Physics Life Skills Basic Personal Finance Leadership Development Personal Wellness Stress Management Marriage and Family Electives	3 4 3 1 3 3 3 3 6 cr
WE100 WE110 BE100 BE152 BE154 BE155 BE160 BE170 BE185 BE188 EC101 EC102 MG101 MG102 HI122 HI123 SS130 SS140	Introduction to Win Electrical Theory The Courses Business Introduction to Business Introduction to Business Salesmanship Business Law Marketing Business Accounting Business Statistics Human Resource M Principles of Adverting Principles of Macroel Principles of Microel Management Principles of Microel Management Principles Introduction to Entre Political Science at US History I US History II Introduction to Socius. Gov't: National	ness anagement ising economics conomics oles epreneurship and History	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	MA114 SC107 SC109 BE139 BE210 PE141 PE250 SS106 Open I	Networking and Computer Technology Elementary Statistics Meteorology Applied Physics Life Skills Basic Personal Finance Leadership Development Personal Wellness Stress Management Marriage and Family Electives	3 4 3 1 3 3 3 3 6 cr
WE100 WE110 BE100 BE152 BE154 BE155 BE160 BE170 BE185 BE188 EC101 EC102 MG101 MG102 HI122 HI123 SS130	Introduction to Win Electrical Theory The Courses Business Introduction to Business Law Marketing Business Accounting Business Statistics Human Resource M Principles of Adverting Principles of Microe Management Principles of Microe Management Principles Introduction to Entre Political Science at US History I US History II Introduction to Soci	ness anagement ising economics conomics oles epreneurship and History lology Local	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	MA114 SC107 SC109 BE139 BE210 PE141 PE250 SS106 Open I	Networking and Computer Technology Elementary Statistics Meteorology Applied Physics Life Skills Basic Personal Finance Leadership Development Personal Wellness Stress Management Marriage and Family Electives	3 4 3 1 3 3 3 3 6 cr

Associate of Science 62 Hours

				6
Requir	ed General Educat	tion Courses		32 cı
CM1 CM1 CM1	unication Requirement 01 English Composition 02 English Composition 15 Public Speaking (3 1240 Interpersonal Co	on I (3 cr) on II (3 cr) cr) or	9	9
Art Musi Thea	c tre	areas required) Humanities Literature Philosophy History	(5
Mathematics Requirement Mathematics General Education Course				3
SC10 SC	al Science Requirement 3 Physical Science (5 c 3104 Geology (4 cr) 7 Meteorology (4 cr)		å	8
*The	biological science requii	rement is waived.		
Social/	Behavioral Science Re (2 areas required)	equirement	(6
		Anthropology		
•	8/	Political Science		
Socio	ology	Geography		
Requir	ed Renewable Ene	rgy Courses		12 cr
SE100	Introduction to Solar	Energy	3	
UA100	Introduction to sUAS		3	
WE100	Introduction to Wind	Energy	3	
WE110	Electrical Theory		3	
Electiv	e Courses			12 cr
	Business			
BE100	Introduction to Busin	ess	3	
BE152	Salesmanship		3	
BE154	Business Law		3	
BE155	Marketing		3	
BE160	Business Accounting		3	
BE170	Business Statistics		3	
BE185	Human Resource Mar	nagement	3	
BE188	Principles of Advertis		3	
BE210	Leadership Developm		3	
EC101	Principles of Macroec		3	
EC102	Principles of Microeco		3	
MG101	Management Principl		3	
MG102	Introduction to Entre		3	

Political Science and History

Introduction to Sociology

U.S. Government: National

SS141 U.S. Government: State and Local

HI122 US History I

HI123 US History II

SS130

SS140

Open	Electives	6 cı
SC109	Applied Physics	3
MA114	Elementary Statistics	3
CS155	Networking & Computer Technology	3
CS108	Computer Applications	3
	Additional Electives	
WE255	Airfoils & Composite Repair	3
WE240	GIS/GPS	3
WE210	Electronics	3
	Energy Technology	
SS142	Current Political Issues	3



3