



High School to College and Career Pathway: Secondary

Area of Study: Agricultural Education

Pathway: Agricultural Systems Technology

Middle School		State Requirements		High School Suggested Education Plan				College & Careers																																											
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According to the U.S. Department of Labor, the growing interest in worldwide standardization of agricultural equipment should result in increased employment of agricultural engineers. Job opportunities should also result from the increasing demand for agricultural products, the continued efforts for more efficient agricultural production, and the increasing emphasis on the conservation of resources.				<p>1.00 credits</p>																																															
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Students enrolled in high school agricultural courses are looking to join a \$3.5-4.0 billion Utah industry.																																																			

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High School to College and Career Pathway: Secondary

Area of Study: Agricultural Education

Pathway: Horticulture Science & Management

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<p>Workforce Trends According to the U.S. Department of Labor, positions in landscape and horticultural services are expected to increase at a fast pace.</p> <p>Get the Facts 24 million, or 17% of the American workforce, is employed in the agricultural industry.</p>		<p>Core Curriculum and elective requirements may vary district to district. Check with your school counselor.</p> <p>Concurrent enrollment course offerings vary by school and district.</p>			<p>Many Utah post-secondary programs accept high school courses toward a two- or four-year degree through concurrent enrollment. Check regional post-secondary Pathways for details.</p>				<p>2.00 credits</p> <p>1.00 credits</p> <p>3.00 credits for completion</p>																																							

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High School to College and Career Pathway: Secondary

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Pathway: Natural Resources Science & Management

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<p>Workforce Trends</p> <p>Utah has a wealth of natural resources, which includes five national parks, seven national monuments, seven national forests, two national recreation areas, 45 state parks, and millions of acres of Bureau of Land Management (BLM)-administered deserts and range land. With the multitude of natural resources in Utah there are a vast amount of career opportunities within eight federal and state divisions.</p> <p>Get the Facts</p> <p>There are 600 bison that roam on Antelope Island State Park, the largest island in the Great Salt Lake; the island herd is the second oldest privately held herd in the United States. Today, the bison on the island are among the most sought-after bison in the country.</p>		<p>Core Curriculum and elective requirements may vary district to district. Check with your school counselor.</p> <p>Concurrent enrollment course offerings vary by school and district.</p>		<p>2.00 credits</p> <p>1.00 credits</p> <p>3.00 credits for completion</p>																																								
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High School to College and Career Pathway: Secondary

Area of Study: Agricultural Education

Pathway: Production/Processing Animal Science

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<p>Workforce Trends Agriculture is the nation's largest employer, with more than 21 million people working in some phase of the industry, from growing food and fiber to selling it in the supermarkets.</p> <p>Get the Facts Agriculture is a vital industry to Utah's economy. There are 16,500 farms in the state, totaling approximately 11.1 million acres, where Utah agriculturists produce crops and livestock worth nearly \$1 billion annually.</p>		<p>Core Curriculum and elective requirements may vary district to district. Check with your school counselor.</p> <p>Concurrent enrollment course offerings vary by school and district.</p>		<p>2.00 credits</p> <p>1.00 credits</p> <p>3.00 credits for completion</p>																																																							
<p>Many Utah post-secondary programs accept high school courses toward a two- or four-year degree through concurrent enrollment. Check regional post-secondary Pathways for details.</p>																																																											

Note: For more information, talk to your school counselor.



High School to College and Career Pathway: Secondary

Area of Study: Agricultural Education

Pathway: Production/Processing Plant & Soil Science

Middle School		State Requirements			High School Suggested Education Plan				College & Careers																													
7 th Grade	8 th Grade	Middle School	High School	9 th Grade Suggested	10 th Grade Suggested	11 th Grade Suggested	12 th Grade Suggested	Beyond High School																														
Language Arts 7 1.00	Language Arts 8 1.00	2.00	Language Arts 4.00	Language Arts 9 1.00	Language Arts 10 1.00	Language Arts 11 1.00	Language Arts 12 1.00	<p>There are a number of options for education and training beyond high school, depending on your career goals.</p> <ul style="list-style-type: none"> > Certificate > Associate degree > Bachelor's degree > Professional degree > On-the-job training > Apprenticeship > Military training <p>Production/ Processing Plant & Soil Science is:</p> <ul style="list-style-type: none"> > High skill > Nontraditional for females <p>Sample Occupations</p> <ul style="list-style-type: none"> > Agricultural Education Teacher > Agronomist > Agronomy Department Manager > Agronomy Production Specialist > Agronomy Tech. Specialist > Plant Pathologist > Seed Sales Manager <p>For more information on salary projections, labor market demand, and training options, visit www.utahfutures.org.</p>																														
Pre-Algebra 1.00	Elem. Algebra or Applied Math 1.00	2.00	Math 3.00	Geometry or Applied Math II 1.00	Intermediate Algebra 1.00	Additional credit 1.00																																
Science .50	Science 1.00	1.50	Science 3.00	Earth Systems 1.00	Biology–Agricultural Science or Biological Science 1.00	Agricultural Science I 1.00																																
Utah Studies .50	U.S. History I 1.00	1.50	Social Studies 2.50	Geography for Life .50	World Civilizations .50	U.S. History II 1.00	U.S. Government and Citizenship .50																															
P.E. 1.00	Health .50	1.50	P.E./Health 2.00	Participation Skills and Techniques .50	Fitness for Life .50 / Health Education .50 Lifetime Activities or Sport .50																																	
The Arts .50	The Arts .50	1.00	Fine Arts 1.50	Fine Arts Courses 1.50																																		
			Financial Literacy .50			Financial Literacy .50																																
Keyboarding .50			Computer Tech. .50	Computer Technology .50																																		
CTE Intro 1.00		1.00	Career and Technical Education 1.00	<p align="center">Career and Technical Education Recommended Pathway Courses</p> <p align="center">(Students may select individual courses for exploration, or a complete Pathway for an in-depth focus.)</p> <p align="center">CLASS AVAILABILITY MAY VARY AT YOUR HIGH SCHOOL</p> <table border="1"> <thead> <tr> <th>Course #</th> <th>Foundation Courses: (required)</th> <th>Credit</th> </tr> </thead> <tbody> <tr> <td>02.0411</td> <td>Plant and Soil Science I</td> <td>1.00</td> </tr> <tr> <td>02.0421</td> <td>Plant and Soil Science II</td> <td>1.00</td> </tr> <tr> <td colspan="3">Elective Courses:</td> </tr> <tr> <td>01.0111</td> <td>Agricultural Business Management</td> <td>1.00</td> </tr> <tr> <td>01.0311</td> <td>Agricultural Science I</td> <td>1.00</td> </tr> <tr> <td>01.0802</td> <td>Ag. Communications & Leadership (capstone)</td> <td>1.00</td> </tr> <tr> <td>32.0199</td> <td>Student Internship (Critical Workplace Skills)</td> <td>.50</td> </tr> <tr> <td>01.0100</td> <td>Summer Agriculture Program</td> <td>.25</td> </tr> <tr> <td></td> <td>Supervised Agriculture Experience Program (capstone experience)</td> <td></td> </tr> </tbody> </table>					Course #	Foundation Courses: (required)	Credit	02.0411	Plant and Soil Science I	1.00	02.0421	Plant and Soil Science II	1.00	Elective Courses:			01.0111	Agricultural Business Management	1.00	01.0311	Agricultural Science I	1.00	01.0802	Ag. Communications & Leadership (capstone)	1.00	32.0199	Student Internship (Critical Workplace Skills)	.50	01.0100	Summer Agriculture Program	.25		Supervised Agriculture Experience Program (capstone experience)	
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<p>Workforce Trends Agronomy is a specialized field where many agronomists are independent consultants.</p> <p>Get the Facts About 17% of all U.S. agricultural products are exported yearly, including 99 million tons of grains and feed and 2 million tons of fresh vegetables.</p>		<p>Core Curriculum and elective requirements may vary district to district. Check with your school counselor.</p> <p>Concurrent enrollment course offerings vary by school and district.</p>		<p>Many Utah post-secondary programs accept high school courses toward a two- or four-year degree through concurrent enrollment. Check regional post-secondary Pathways for details.</p>				<p>2.00 credits</p> <p>1.00 credits</p> <p>3.00 credits for completion</p>																														

Note: For more information, talk to your school counselor.

High School to College and Career Pathway: Secondary

Area of Study: Agricultural Education

Pathway: Production/Processing Science & Management

Middle School		State Requirements			High School Suggested Education Plan				College & Careers
7 th Grade	8 th Grade	Middle School	High School	9 th Grade Suggested	10 th Grade Suggested	11 th Grade Suggested	12 th Grade Suggested	Beyond High School	
Language Arts 7 1.00	Language Arts 8 1.00	2.00	Language Arts 4.00	Language Arts 9 1.00	Language Arts 10 1.00	Language Arts 11 1.00	Language Arts 12 1.00	<p>There are a number of options for education and training beyond high school, depending on your career goals.</p> <ul style="list-style-type: none"> > Certificate > Associate degree > Bachelor's degree > Professional degree > On-the-job training > Apprenticeship > Military training <p>Production/Processing Science & Management is:</p> <ul style="list-style-type: none"> > High skill > High wage > High demand > Nontraditional for females <p>Sample Occupations</p> <ul style="list-style-type: none"> > Ag. Commodity Broker > Ag. Economist > Ag. Ed. Teacher > Ag. Journalist > Ag. Lender > Ag. Loan Officer > Ag. Marketing Specialist > Ag. Products Buyer > Farm/Ranch Manager > Feed/Farm Supply Manager > Livestock Buyer/Seller > Meat Inspector > Pesticide Applicator > Produce Buyer <p>For more information on salary projections, labor market demand, and training options, visit www.utahfutures.org.</p>	
Pre-Algebra 1.00	Elem. Algebra or Applied Math 1.00	2.00	Math 3.00	Geometry or Applied Math II 1.00	Intermediate Algebra 1.00	Additional credit 1.00			
Science .50	Science 1.00	1.50	Science 3.00	Earth Systems 1.00	Biology–Agricultural Science or Biological Science 1.00	Animal Science or Plant and Soil Science 1.00			
Utah Studies .50	U.S. History I 1.00	1.50	Social Studies 2.50	Geography for Life .50	World Civilizations .50	U.S. History II 1.00	U.S. Government and Citizenship .50		
P.E. 1.00	Health .50	1.50	P.E./Health 2.00	Participation Skills and Techniques .50	Fitness for Life .50 / Health Education .50 Lifetime Activities or Sport .50				
The Arts .50	The Arts .50	1.00	Fine Arts 1.50	Fine Arts Courses 1.50					
			Financial Literacy .50	Financial Literacy .50					
Keyboarding .50			Computer Tech. .50	Computer Technology .50					
CTE Intro 1.00		1.00	Career and Technical Education 1.00	Career and Technical Education Recommended Pathway Courses (Students may select individual courses for exploration, or a complete Pathway for an in-depth focus.) CLASS AVAILABILITY MAY VARY AT YOUR HIGH SCHOOL					
<p>Workforce Trends According to the Utah Farm Bureau Federation, more than 100,000 people are employed by agriculture and agribusiness in the state of Utah.</p> <p>Get the Facts Farmers and ranchers provide food and habitat for 75% of the nation's wildlife. One-fourth of the world's grain, milk, and eggs are produced in the United States.</p>		<p>Core Curriculum and elective requirements may vary district to district. Check with your school counselor.</p> <p>Concurrent enrollment course offerings vary by school and district.</p> <p>Many Utah post-secondary programs accept high school courses toward a two- or four-year degree through concurrent enrollment. Check regional post-secondary Pathways for details.</p>		Course #	Foundation Courses: (required)	Credit	} 2.00 credits		
				01.0311	Agricultural Science I	1.00			
				01.0321	Agricultural Science II	1.00			
				Elective Courses:					
				01.0111	Agricultural Business Management	1.00			
				01.0331	Agricultural Science III	1.00			
				02.0211	Animal Science I	1.00			
				02.0241	Animal Science II	1.00			
				01.0351	Aquaculture, Introductory	1.00			
				01.0361	Aquaculture, Advanced	1.00			
				02.0251	Dairy Herd Management	1.00			
				02.0221	Equine Science	1.00			
				02.0411	Plant and Soil Science I	1.00			
				02.0421	Plant and Soil Science II	1.00			
				02.0261	Swine Herd Management	1.00			
02.0231	Veterinary Assistant	1.00							
02.0235	Veterinary Technician	1.00							
01.0802	Ag. Communications & Leadership (capstone)	1.00							
32.0199	Student Internship (Critical Workplace Skills)	.50							
01.0100	Summer Agriculture Program	.25							
			Supervised Agriculture Experience Program (capstone experience)	3.00 credits for completion					

Note: For more information, talk to your school counselor.