

AGRICULTURAL SCIENCES VERMONT TECH



AGRICULTURAL SCIENCES OVERVIEW

Careers that provide an opportunity to see a plant or animal respond to your care and management offer a kind of satisfaction not always found in other fields. Whether you are interested in the broad-based discipline of farming, a related area of agriculture, or a more specialized interaction with plants and animals, Vermont Tech has a program for you.

The Diversified Agriculture, Agribusiness Management Technology, and Dairy Farm Management Technology programs are offered at the **RANDOLPH CENTER** campus.



REGIONAL STUDENT PROGRAM (RSP)

Vermont Tech participates in the Regional Student Program of the New England Board of Higher Education. Under this agreement, students from other New England states are offered lower nonresident tuition rates (150 percent of the in-state tuition per academic year) if they enter a program eligible for tuition reduction.

The programs described in this brochure are RSP-eligible to the students from these states:

Agribusiness Management Technology (A.A.S.):	<ul style="list-style-type: none">• Connecticut• Maine• Massachusetts• Rhode Island
Dairy Farm Management (A.A.S.):	<ul style="list-style-type: none">• Maine• Massachusetts• Rhode Island
Diversified Agriculture (B.S.):	<ul style="list-style-type: none">• Maine• Massachusetts• Rhode Island

(States are subject to change.)

ACCREDITATION

Vermont Tech is accredited by the New England Association of Schools and Colleges Commission on Institutions of Higher Education (NEASC).

Diversified Agriculture, B.S.

Agribusiness Management Technology, A.A.S.

Dairy Farm Management Technology, A.A.S.

AGRICULTURAL SCIENCES

DIVERSIFIED AGRICULTURE

Bachelor of Science (B.S.)

Today's farmers and agricultural industries must compete for customers on an international level while simultaneously meeting an increased demand for locally grown products. Training farmers to develop and synergize diverse agriculture operations on the same farmstead will make them stronger all-around competitors in the food production market, as well as more economically sound.

The Diversified Agriculture program meets these needs by combining animal, plant, and soil sciences with a knowledge and understanding of business and management. The program emphasizes the use of synergistic biological processes to foster a reduction in the need for outside farm inputs.

SAMPLE CURRICULUM

BACHELOR OF SCIENCE IN DIVERSIFIED AGRICULTURE

FIRST YEAR

Fall Semester	Credits	Spring Semester	Credits
Survey of Accounting	3	Agricultural Techniques II	1
Agricultural Techniques I	3	Animal Nutrition	4
Livestock Production	3	Botany	4
Introduction to Spreadsheets & Database Management	2	Introduction to Soils	4
English	3	Select One:	
Introduction to Horticulture	3	Finite Mathematics	3
		Principles of Mathematics	3
Total Credits	17	Total Credits	16

THIRD YEAR

Fall Semester	Credits	Spring Semester	Credits
Financial Management	3	Advanced Nutrient Management	3
Arts & Humanities/Social Science	3	Vegetable/Fruit Production	3
Select as desired: (7 credits minimum)		Arts & Humanities/Social Science	3
Advanced Livestock Production	3	Select as desired: (6 credits minimum)	
Advanced Dairy Nutrition	3	Large Animal Disease	3
Apples, Berries & Bees	3	Beef Production	3
Environmental Biology	4	Maple Production	3
Woody Ornamentals	3	Total Credits	15-18
Plant Propagation	3	Summer Semester	
Total Credits	13-15	Summer Internship	0

EDUCATION + CAREER OPPORTUNITIES

Graduates of this program are well prepared to own or manage farms with diverse operations, such as dairy, livestock (e.g., beef, sheep, and goats), succession grazing, market gardening, greenhouse production, and maple sugaring. Additional opportunities exist for graduates to act as consultants to existing agricultural organizations.

SECOND YEAR

Fall Semester	Credits	Spring Semester	Credits
Issues & Trends in Agriculture	2	Organic Chemistry	4
Small Business Management	3	Technical Communication	3
General Chemistry	4	Select One:	
Select as desired: (7 credits minimum)		Statistics	3
Burls to Boards	3	Technical Mathematics	5
Dairy Herd Management	3	Calculus for Engineering	4
Farm Buildings	3	Select as desired: (6 credits minimum)	
Forage Production	3	Reproduction & Genetics	3
Entomology	3	Dairy Herd Management	3
Manufacturing Processes	2	Plant Pathology	3
Total Credits	16-18	Total Credits	16-18

FOURTH YEAR

Fall Semester	Credits	Spring Semester	Credits
Agricultural Products	3	Diversified Agriculture Project	3
Internship Review	1	Principles of Marketing	3
Arts & Humanities/Social Science	3	Mediation & Communication	3
Select Two:		Arts & Humanities/Social Science	3
Sheep Production	2	Select One:	
Engine Diagnostics/Repair	4	Auto Electrical Systems	4
Diesel Power Systems	4	Equine Health & Disease	3
Energy Systems & Sustainability	3	Greenhouse Management	4
Green Sites Survey	3	Total Credits	15-16
Total Credits	12-15		

AGRIBUSINESS MANAGEMENT TECHNOLOGY

Associate of Applied Science (A.A.S.)

Students in the Agribusiness Management Technology program learn to understand the income and expense sources of varied agricultural businesses; prepare and assess an agribusiness business plan; prepare income and expense accounts; understand marketing principles; delve into small business management, including payroll and human resources; and competently represent agriculture in all venues.

Students benefit from the combination of classroom instruction and practical laboratory experience, which includes use of the extensive facilities at the College farm. In addition to the important basics in plant and animal agriculture, the program emphasizes business and communication skills.

EDUCATION + CAREER OPPORTUNITIES

Graduates of this program generally pursue careers on farms or with the industries and agencies that serve production agriculture. Typical career choices include sales and service representatives for feed, fertilizer, and equipment industries; inspectors of milk and other agricultural products; rural credit officers; and specialists with agencies such as the Dairy Herd Improvement Association, the Soil Conservation Service, and the Peace Corps.



Students who complete an associate degree in Agribusiness Management Technology can transfer seamlessly into the bachelor's program in Business or Diversified Agriculture.

SAMPLE CURRICULUM

ASSOCIATE DEGREE IN AGRIBUSINESS MANAGEMENT TECHNOLOGY

FIRST YEAR			
<i>Fall Semester</i>	<i>Credits</i>	<i>Spring Semester</i>	<i>Credits</i>
Financial Accounting	4	Computerized Accounting	3
Agricultural Techniques I	2	Managerial Accounting	4
Livestock Production	3	Technical Communication	3
English	3	Introduction to Soils	4
Introduction to Horticulture	3	Agriculture Elective	2-4
Principles of Mathematics	3	Total Credits	16-18
Total Credits	18		

SECOND YEAR			
<i>Fall Semester</i>	<i>Credits</i>	<i>Spring Semester</i>	<i>Credits</i>
Small Business Management	3	Principles of Marketing	3
Introduction to Chemistry	4	Human Resource Management	3
Introduction to Spreadsheets & Database Management	2	Arts & Humanities/Social Science	3
Arts & Humanities/Social Science	3	Elective	3-4
Select as desired: (6 credits minimum)		Effective Speaking	3
Farm Buildings	3	Total Credits	15-16
Forage Production	3		
Agriculture Elective	3		
Principles of Management	3		
Principles of Financial Management	4		
Organizational Communication	4		
Business Elective	3-4		
Total Credits	18-19		

DAIRY FARM MANAGEMENT

Associate of Applied Science (A.A.S.)

The Vermont Tech Dairy Farm Management Technology program is unique in that it integrates classroom instruction with hands-on experience at local dairy businesses as well as the College's 500-acre working farm, home to a registered Holstein and Brown Swiss herd. The farm is integrated into all facets of the program and students are active participants in its management and operation. Practical experience at the farm is an especially valuable aspect of the program for students who lack a farm background. Additional coursework in accounting, finance, and computer applications helps broaden students' understanding of dairy farm management.

EDUCATION + CAREER OPPORTUNITIES

Graduates of the Dairy Farm Management Technology program develop the skills and knowledge to operate a profitable modern dairy farm or pursue a successful career in the agribusiness industry. Graduates frequently return

to their home farms, are employed as herd managers, or work as breeding technicians, DHIA testers, and Peace Corps volunteers. The Vermont Tech farm also serves as an employment option for many students. Students interested in continuing their education at Vermont Tech have the opportunity to earn a Bachelor of Science in Diversified Agriculture, Applied Business Management or Business Technology and Management.

Additionally, students from the state of Vermont may apply for admission to the Farm and Agricultural Resource Management Stewards (FARMS) program offered in cooperation with the University of Vermont. This program offers a seamless transition from the Dairy Farm Management Technology program at Vermont Tech to a second two years at the College of Agriculture and Life Sciences at UVM. Full-tuition scholarships are available to Vermont students in FARMS.



SAMPLE CURRICULUM

ASSOCIATE DEGREE IN DAIRY FARM MANAGEMENT

FIRST YEAR				SECOND YEAR			
<i>Fall Semester</i>	<i>Credits</i>	<i>Spring Semester</i>	<i>Credits</i>	<i>Fall Semester</i>	<i>Credits</i>	<i>Spring Semester</i>	<i>Credits</i>
Survey of Accounting	3	Agricultural Techniques II	1	Dairy Herd Management I	3	Dairy Herd Management II	3
Agricultural Techniques I	2	Reproduction & Genetics	3	Farm Buildings	2	Large Animal Diseases	3
Livestock Production	3	Animal Nutrition	4	Forage Production	3	Small Business Management	3
Introduction to Spreadsheets & Database Management	2	Technical Communication	3	Issues & Trends in Agriculture	2	Principles of Marketing	3
English	3	Introduction to Soils	4	Principles of Financial Management	3	Arts & Humanities/Social Science	3
Select One:		Arts & Humanities/Social Science	3	Select One:		Total Credits	15
Principles of Mathematics	3	Total Credits	18	Introduction to Chemistry	4		
Finite Mathematics	3			General Chemistry	4		
Technical Mathematics	5			Total Credits	17		
Total Credits	16-18						

REV September 2014

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