

*It's your world.*

A PROPOSAL FOR



Agriculture -  
**Equine &  
Ranch Management  
Options**



**LAKE AREA**  
TECHNICAL INSTITUTE

[www.lakeareatech.edu](http://www.lakeareatech.edu)

## **Executive Summary**

Lake Area Technical Institute is proposing adding two options to the seven options that currently are available in our Agriculture Program. The new options, Equine Management and Ranch Management, would increase the skill set of students who select these options and provide additional employment avenues for graduates to pursue.

## **Identification and Description of the New Options**

Our Agriculture Program currently has seven options which allow students to tailor their degree to fit their employment goal. The Options are: Agri- Business, Agri-Production, Commodity Merchandizing, Dairy Option, Environmental Technology, Large Animal, and Precision Technology. The students are required to take a common core of courses and then can pursue the option which best fits their personal employment goals, as the Agriculture industry in South Dakota is quite diverse.

The Equine Management Option will add seven required courses, such as Equine Science, Horsemanship, and Equine Nutrition, to the current Agri-business curriculum. Students will exit with a strong Ag Business foundation, along with the Equine specialty courses, enabling them to go to work in a wide variety of Ag-related businesses, such as Equine Operations, Feed Supply Companies, and Animal Health Businesses, in addition to the Seed and Grain industry.

The Ranch Management Option will better prepare students to return to work on their family operation or work for other Ranch Operators in the state. Courses added, which include Sheep/Goat Production, Beef Production, Livestock Marketing and Evaluation, and Range Management/ Plans, will prepare them for the types of ranching conditions typical of the middle and western parts of South Dakota.

## **Objectives and Purposes of the New Options**

The primary purpose of the Agriculture Program is to graduate students with the necessary skills to be employed in the Ag sector or return to family farms/ranches in South Dakota. In addition to the course objectives in our current Ag Management and Ag Production Options, the new options would add objectives including:

Equine Management Option:

Identify common horse breeds, characteristics and uses, and husbandry practices.

Develop skill in equine nutrition, feed selection, digestive anatomy, and ration management.

Knowledge of operational equine facility management, including development of a business plan.

Provide training in safety, horse grooming, handling, tacking, farrier skills, and equine reproduction.

Develop knowledge of equine anatomy, physiology, and disease management.

Objectives for the Ranch Management Option would include:

Knowledge of sheep breeds and courses, mutton and wool production, breeding, sheep nutrition, and marketing of sheep products.

Introduction to livestock identification, dehorning, parasites, construction of fences, corrals and facilities.

Understanding of plant growth, economic characteristics and identification of range plants, range ecology, rangeland stocking rates, grazing practices.

### **Methods of Obtaining the Objectives of the Program**

In addition to a very strong theoretical base gained through course work on campus, all Ag students do a Supervised Occupational Experience (SOE) placement at the end of their first year and again at the end of the second year of the program. The students are placed in Ag Businesses or farms and ranches all over the region to gain real world experiences, meeting established SOE Objectives. All Ag students also participate in learning experiences at the 90 acre LATI Ag Demonstration Farm.

The Equine Option students will also have horsemanship training at the Equine Facility located at Joy Ranch, through a partnership with the facility.

### **Description of the Need Based Upon Labor Market Demands**

LATI's Agriculture program has been operational since 1970. In the over 40 years of educating Ag students, solid relationships have been developed with Ag Businesses and Producers around the state. The Ag Businesses needing employees contact LATI annually to obtain student interns which eventually become business employees. For Spring of 2012 over 125 job openings have already been received by the LATI Ag department. In addition, we are observing a trend where not only Ag Businesses but Farm/Ranch Operators are now contacting LATI seeking interns.

Department of Labor data is included in Appendix B. This data often does not address the Ag sector accurately as so many of the jobs are as self-employed producers. The data available indicates employment opportunities in this sector will remain steady or increase slightly over the next few years.

### **Population to be Served by the Program**

These options will be available to any applicant who has successfully met the admission standards for the AG program as set by LATI. The options will be offered on a full-time basis only. Occasional part-time students might be accommodated, depending upon their personal situation, but all students must have a plan to persist to graduation. No restriction will be made regarding race, age, creed, or gender. The program will draw students primarily from South Dakota. The employers served will fall within the same geographical area.

**Projected Three Year Budget**

The options will be located in the current LATI facilities and in the new Ag Complex, anticipated to be completed fall 2013. The program will utilize current and new industry partners. Enrollment in the Equine Management Option will be limited to 22 students the first year. No enrollment cap is anticipated for the Ranch Management Option.

	FY 13	FY 14	FY 15
Salary/Benefits	17,000	50,000	51,500
Supplies	2000	4000	4000
Equipment	1000	2000	2000

**Program Option Competencies and Entry and Exit Points**

Entry Points: Fall or Spring Semester

Exit Point: After completion of all coursework for AAS degree

Job Titles: Ag Sales, Farm/Ranch Operator, Ranch Manager, Herdsman, Equine Specialist, Farrier.

**Statement of Non-duplication**

There is no Equine Management Option at the two year level in the state. There is also no Ranch Management Option, to our knowledge. Once the Options begin, LATI will work with LATI on adding articulation agreements to facilitate interested graduates pursuing a Bachelor’s degree.

**Curriculum Design**

See Appendix A

**Wage Factor**

According to the most recent Job Placement data available, 2010 graduates of the Agriculture Program at LATI were earning between \$10 and \$14.46 dollars an hour after 6 months on the job. With overtime and bonuses, earning potential rises rapidly in this sector. Ranch Management graduates are typically returning to family-owned operations and wage data is confidential.

**CIP Code**

Since Agriculture is an existing program, the CIP code would remain the same.

## Agriculture Equine Management Option



## Semester Outline

20 Months Credits Required for Graduation:  
87.5

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

2012 – 2013

Revised: 12/11

### First Year – Fall Semester

Course Number	Course Title	Clock Hours	Credits
AG 100	Soil Science	84	3
AG 102	Crop Science	84	3
AGR 105	Ag Safety	28	1
AGR 107	Equine Science I	56	2
AGR 110	Animal Science	84	3
AGR 111	Horsemanship	84	3
AGR 233	Commodity Futures and Options	84	3
AED 100	Automated External Defibrillator	14	.5
CIS 101	Microsoft Word	28	1
CSS 100	Career Search Strategies	14	.5
HAZ 100	Hazardous Materials Safety	14	.5
<b>Total</b>		<b>574</b>	<b>20.5</b>

### First Year – Spring Semester

Course Number	Course Title	Clock Hours	Credits
AG 122	Fertilizers	84	3
AG 124	Ag Chemicals	84	3
AGR 113	Equine Science II (includes Farrier intro)	84	3
AGR 118	Soil and Water Management	84	3
AGR 165	Business Supervised Occupational Experience I (S.O.E.)	300	5
BUS 158	Principles of Selling	48	3
• Selected Behavioral Science Course		48	3
<b>Total</b>		<b>732</b>	<b>23</b>
<b>Optional Courses Available</b>			
AGR 142	Commercial Pesticide Certification	12	.5
AGR 150	Commercial Drivers License Preparation	12	.5

### First Year – Summer Session

Course Number	Course Title	Clock Hours	Credits
AGR 115	Equine Supervised Occupational Experience II (S.O.E.)	300	5
<b>Total</b>		<b>300</b>	<b>5</b>

### Second Year – Fall Semester

Course Number	Course Title	Clock Hours	Credits
AG 200	Animal Nutrition	84	3
AG 214	Ag Chemical Equipment	84	3
AGR 120	Seed and Grain Technology	84	3
AGR 213	Equine Nutrition	28	1
AGR 229	Equine Entrepreneurship	56	2
ECON 201	Principles of Microeconomics I	48	3
SPCM 101	Fundamentals of Speech	48	3
• Selected Communication Course		48	3

Appendix A: Curriculum Outlines

• Selected Mathematics Course		48	3
Total		528	24
<b>Optional Courses Available</b>			
AGR 231	Advanced Horsemanship	84	3
AGR 262	Precision Agriculture/Data Collection	84	3

Appendix A: Curriculum Outlines  
**Equine Management Option**

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**Second Year – Spring Semester**

Course Number	Course Title	Clock Hours	Credits
AG 247	Internship	300	5
AGR 239	Microsoft Excel for Ag	28	1
AGR 243	Equine Health	84	3
AGR 245	Equine Breeding	84	3
<b>Choose one (1) of the following:</b>			
AGR 162	Co-op Principles	84	3
AGR 170	Dairy Science	84	3
AGR 204	Animal Health II	84	3
AGR 210	Forages and Grasses	84	3
AGR 212	Plant Diseases/Insect ID and Control	84	3
AGR 252	Advanced Nutrition	84	3
Total		580	15

- Students will select a course in each of the areas listed to meet general education requirements. Courses marked with an asterisk can be transferred directly to the university system under the terms of articulation agreements and may be substituted for recommended courses on the outline. Students should speak with an advisor before doing so.

**Behavioral Science**

PSYC 100 – Psychology of Human Relations  
 PSYC 101 – General Psychology \*

**Communications**

COMM 101 – Contemporary Communication  
 ENGL 101 – Composition \*  
 ENGL 202 – Writing for the Real World

**Mathematics**

MATH 100 – Applied General Math  
 MATH 101 – Intermediate Algebra  
 MATH 102 – College Algebra \*

## Agriculture Ranch Management Option



## Semester Outline

18 Months Credits Required for Graduation:  
82.5

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

2012 – 2013

Revised: 12/11

### First Year – Fall Semester

Course Number	Course Title	Clock Hours	Credits
AG 100	Soil Science	84	3
AG 102	Crop Science	84	3
AGR 105	Ag Safety	28	1
AGR 107	Equine Science I	56	2
AGR 110	Animal Science	84	3
AED 100	Automated External Defibrillator	14	.5
CIS 101	Microsoft Word	28	1
CSS 100	Career Search Strategies	14	.5
HAZ 100	Hazardous Materials Safety	14	.5
• Selected Behavioral Science Course		48	3
<b>Total</b>		<b>454</b>	<b>17.5</b>

### First Year – Spring Semester

Course Number	Course Title	Clock Hours	Credits
AG 158	Farm/Ranch Records	84	3
AGR 101	Basic Animal Husbandry	84	3
AGR 103	Breeding Practices and techniques	84	3
AGR 106	Animal Health I	84	3
AGR 116	Sheep/Goat Production	84	3
AGR 117	Ranch Supervised Occupational Experience I (S.O.E.)	300	5
AGR 118	Soil and Water Management	84	3
<b>Total</b>		<b>804</b>	<b>23</b>
<b>Optional Courses Available</b>			
AGR 142	Commercial Pesticide Certification	12	.5
AGR 150	Commercial Driver's License Preparation	12	.5

### Second Year – Fall Semester

Course Number	Course Title	Clock Hours	Credits
AG 200	Animal Nutrition	84	3
AGR 202	Livestock Nutrition Problems	84	3
AGR 236	Business Management I	84	3
AGR 251	Intro to Range Management and Plants	84	3
AGR 254	Beef Production	84	3
• Selected Communication Course		48	3
• Selected Social Science Course		48	3
<b>Total</b>		<b>516</b>	<b>21</b>
<b>Optional Courses Available</b>			
AGR 211	Horsemanship	84	3

## Ranch Management Option

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### Second Year – Spring Semester

Course Number	Course Title	Clock Hours	Credits
AGR 204	Animal Health II	84	3
AGR 210	Forages and Grasses	84	3
AGR 239	Microsoft Excel for Ag	28	1
AGR 252	Advanced Nutrition	84	3
AGR 261	Livestock Marketing and Evaluation	84	3
AGR 263	Ranch Supervised Occupational Experience I (S.O.E.)	300	5
• Selected Mathematics Course		48	3
Total		712	21

- Students will select a course in each of the areas listed to meet general education requirements. Courses marked with an asterisk can be transferred directly to the university system under the terms of articulation agreements and may be substituted for recommended courses on the outline. Students should speak with an advisor before doing so.

#### Behavioral Science

PSYC 100 – Psychology of Human Relations  
 PSYC 101 – General Psychology \*

#### Communications

COMM 101 – Contemporary Communication  
 ENGL 101 – Composition \*  
 ENGL 202 – Writing for the Real World

#### Mathematics

MATH 100 – Applied General Math  
 MATH 101 – Intermediate Algebra  
 MATH 102 – College Algebra \*

Appendix B

Appendix B: Wage Data

**South Dakota Employment Projections and Wage Data for Occupations Related to Equines**

SOC* Code	Occupational Title	Average Wage	Percentile Wages					Projections				
			10th	25th	50th	75th	90th	2008 Base Number of Jobs	2018 Projected Number of Jobs	Actual Change	Percent Change	Average Annual Demand for Workers
45-2093	Farmworkers Farm and Ranch Animals	\$11.92	\$8.38	\$9.48	\$11.76	\$14.23	\$16.31	4,000	3,950	-50	-1.3%	108
29-1131	Veterinarians	\$33.68	\$23.89	\$27.49	\$32.82	\$39.41	\$45.13	360	405	45	12.5%	11
31-9096	Veterinary Assistants and Laboratory Animal Caretakers	\$9.42	\$7.88	\$8.38	\$9.16	\$10.42	\$11.92	190	215	25	13.2%	5
29-2056	Veterinary Technologists and Technicians	\$13.72	\$10.46	\$11.90	\$13.53	\$15.10	\$17.74	280	350	70	25.0%	14

Notes: Data is preliminary and subject to revision.

\*SOC - Standard Occupational Classification, 2000

[Click here for descriptions of SOC occupations by code \(2000 version\).](#)

Source: Labor Market Information Center, SD Department of Labor and Regulation, October 2011.

Appendix C: Letters of Support

November 30, 2011

Blair Wittnebel, owner  
Sioux Valley Stables  
Watertown, SD 57201  
Phone: (605) 882-2420

Debra Shephard, President LATI  
230 11th ST NE  
Watertown, SD 57201  
Phone: (605) 882-5284  
Fax: (605) 882-6299

Debra,

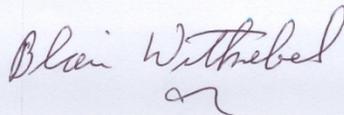
As a successful horse-business owner right here in Watertown, SD, I would like to see a horse option added to the LATI program to help others get started successfully with a business like mine. The Equine Management Option would be a great addition to the current LATI Agriculture Program. It would help the state of South Dakota and the students here.

I own and run Sioux Valley Stables which is a training, riding facility just off I-29 exit 177 in Watertown. I would like to see more individuals be more educated in the horse industry to either work more effectively with their own animals or their own ranch or to start a business like mine. I really enjoy what I do and can see that others would also with proper education.

I believe people have to go to other states to get such a degree right now and then most likely stay out-of-state. So I feel that adding this equine program would bring them to our state or keep folks here. We do have much work here in South Dakota with horses - could be in feed sales, marketing, training (like I do), health, assisting in a professional field, etc. There would be a good employment opportunity for the graduates.

This is a very rewarding field and it is greatly needed here. It would be exciting to see such a program in place. I do really recommend adding this equine program to LATI.

Blair Wittnebel

A handwritten signature in cursive script that reads "Blair Wittnebel" with a small flourish underneath.

Appendix C: Letters of Support

December 10, 2011

Debra Shephard, President LATI  
230 11th ST NE  
Watertown, SD 57201  
Work: (605) 882-5284  
Fax: (605) 882-6299

Dear Ms. Shephard:

As current President of the SD Horse Council and as a successful, certified horse judge and horse business person, I am writing to recommend the Equine Management Option to the current LATI Agriculture Program.

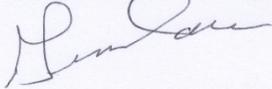
There is a strong need for educated individuals in horse-related fields in South Dakota. Most people currently functioning in horse-areas are self-trained or are general ag individuals with no formal training.

Those students interested in a two-year working degree must now travel out-of-state to find such training. There is a need for workers with formal horse training combined with business and other areas of ag to be successful, working individuals in our state.

Employment from the Equine Management Option will be found in ag-related field and also in business. Some individuals will go on to start their own equine business or work back on their family ranch/farm while others will work successfully alongside an established field such as a veterinarian, sales, business, nutrition, genetic research, etc.

The Equine Management Option added to the already successful LATI Ag Program will provide a great need to our students in in-state education as well as keeping them here in our home state of South Dakota to work after earning the degree.

I highly recommend adding this option.



Gene Carr



December 9, 2011:

To Whom It May Concern:

The agriculture community is becoming more educated and specialized; the equine industry is no exception. In today's industry an employee must have a basic understanding of all avenues. LATI is preparing to answer very important issues faced by employers with the addition of an Equine Management option. It is essential that an employee has an understanding of basic animal husbandry, business, and also gains the scientific knowledge to fit the needs of an employer.

The equine industry has a severe lack of formally educated employees. Every aspect of the business has evolved to include new technologies and techniques. Things like artificial insemination, embryo transfer, cooled shipped semen, and frozen semen being widely used have made it possible for local horses to gain access to a far greater section of prospective clients. This drives a new need for a more specialized work force that understands the importance of efficiency, cost management, herd health, and the ability to communicate clearly with clients. These things are all crucial to a modern day breeding facility.

With limited options available in the area, local businesses are forced to explore other options when seeking out qualified individuals. This program will create opportunities for its graduates by incorporating traditional vocational training, business, and management into a specialized equine program. Part of the educational experience is learning not only how but why things are done. This program has an opportunity to fill a need for educated professionals in our industry.

Sincerely,

A handwritten signature in black ink, appearing to read "Ty Hendrix", is written over a light blue horizontal line.

Ty Hendrix  
General Manager

13171 HIGH PLAINS PL PIEDMONT, SD 57769 PHONE: (605) 787-4808 FAX: (605) 787-7127

EMAIL: [tyhendrix@high-plaingenetics.com](mailto:tyhendrix@high-plaingenetics.com)

Appendix C: Letters of Support

12/16/2011 12:09 605-882-4746

HOWARD VET CLINIC

PAGE 02/02

December 14, 2011

Dr. William Howard, DVM  
Howard Veterinary Clinic  
Watertown, SD 57201  
Phone: (605) 882-4188

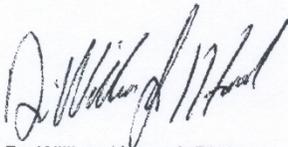
Debra Shephard, President LATI  
230 11th ST NE  
Watertown, SD 57201  
Phone: (605) 882-5284  
Fax: (605) 882-6299

Ms. Shephard,

I would recommend a horse program such as the Equine Management Option added to the LATI program. As a local veterinarian whose has much training and experience in the horse field, I believe this program would be a huge benefit to our state.

Interested individuals must currently seek an Associate's Degree out-of-state. Once out-of-state they have a tendency to stay out. Adding this equine program would bring them to our state or keep students working and living here. There are many employment opportunities for graduates in South Dakota in the equine area from assisting in professions, to starting their own businesses or working in other equine health or general knowledge fields. Many working now are self-educated or inexperienced.

I find work with horses sometimes difficult yet rewarding. It would help all the way around to have more education in both the general public and specific degree-related areas. I recommend adding the Equine Management Option added to the LATI program.



Dr. William Howard, DVM

## Haugan Nelson Realty, Inc.

11 19<sup>th</sup> St., NE Watertown, SD 57201 Phone 605-886-7080 Fax 605-886-7179 haugannelson.com

December 22, 2011

Deb Shepherd  
Lake Area Technical Institute  
230 11<sup>th</sup> St. N.E.  
Watertown, South Dakota 57201

Re: Equine Management Program

Dear Deb:

Please consider this a letter of overwhelming support for your impending addition of an Equine Management Program to your existing Ag Program. Joy Ranch would be more than thrilled to partner with LATI for this most beneficial program. Joy Ranch has an existing string of horses and indoor riding arena and equine facilities that we believe would facilitate your students needs very nicely.

We also believe this would be of great benefit to your students to broaden their knowledge in the agricultural field to include equine management. This would open many other doors for these students with this additional training. I don't believe there is another existing program in South Dakota that would benefit the students in this manner currently.

We would be most anxious to begin conversation with you on how to start implementing this program at your convenience.

Sincerely,

  
Joy C. Nelson

Appendix C: Letters of Support

14416 SD Hwy 40  
Hermosa, S.D.  
57744  
Alan J Bishop

December 23, 2011

Lake Area Vo-Tech  
230 11th St NE  
Watertown S.D.  
57201

To Whom It May Concern:

I am very pleased to hear that Lake Area Vo-tech is looking into implementing a Range Management Coarse. With two-thirds of South Dakota's agricultural land resources being held in either highly erodible or non-tillable lands, and with the livestock and particularly the cattle industry being the number one commodity produced in this state, it is only reasonable that the course of studies offered at Lake Area should include Range Management. Lake Area's commitment to using the latest, most up-to-date information in their classes will help tomorrow's producers use these resources in a practical, sustainable and profitable way.

With the continuing pressures from both the public and private sectors to insure the responsible uses of our natural resources, it is extremely important that the right tools are available for tomorrows farm and ranch managers. There is no better time to start building for the future than right now. I encourage the governing team of Lake Area pursue their development of this new Degree.

Sincerely,



Alan J. Bishop

12/30/11

Ranch Management Option

To Whom it may concern

As a central South Dakota cattle rancher and a former Lake Area Tech student (1982), I was interested to hear Lake Area would like to start a Ranch Management Program.

It would be good to get more people involved with more of the ranching aspect of agriculture. With the U.S. cattle herd nearing the lowest number in 50 years we need more education opportunity in this field, so we can increase the number of people involved, thus create a thriving and growing cattle herd in the U.S.A.

Please consider this my  
letter of recommendation for  
a new course pertaining to  
ranching.

Sincerely

Brent Pries

Brent Pries  
30321 Clark Rd.  
Pierre SD 57501

(605) 224-0298

## Appendix C: Letters of Support

19627 Woolly Place  
Fort Pierre, SD 57532

December 20<sup>th</sup>, 2011

Lake Area Technical Institute  
C/O of Agriculture Department  
230 11<sup>th</sup> NE  
PO Box 730  
Watertown, SD 57201

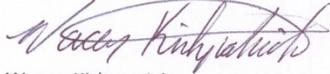
To Whom It May Concern,

My name is Wacey Kirkpatrick and I am writing this letter in support of a Ranch Management training program at Lake Area Technical Institute. I feel that there is a lack of formal Ranch Management training programs in this part of the country, so adding this curriculum option to your institute will fill a much needed gap in the agriculture community. With the average age of ranchers reaching close to retirement age, younger people will need to fill these management positions on these ranches. In order to successfully manage these ranches, I feel younger people need a good education in Ranch Management. I grew up on a ranch in western South Dakota, attended college and obtained a Ranch Management degree. I use my education on a daily basis in my current position managing a ranch in western South Dakota. Had I not received a formal education in ranch management, I feel I would not have the right tools and knowledge to be a successful ranch manager.

In my opinion, to be a successful ranch manager a person needs to have a well rounded knowledge base in business management, accounting, interpersonal communication, livestock production and handling, rangeland and resource management, as well as wildlife management. I strongly recommend involving all these different aspects in the curriculum so that students will have a well rounded knowledge base. I would also volunteer to host your ranch management students here on the ranch I manage. I feel visiting different ranches that are involved in all different aspects of beef production will be very beneficial to the students. I feel this interaction with successful ranchers is a beneficial step in helping them along a successful ranch management career path.

I appreciate you taking time out of your busy schedule to read my thoughts on developing a Ranch Management training program and I wish Lake Area Technical Institute the best of luck in this development process. If you have any questions feel free to call me at 605-567-3313.

Sincerely,



Wacey Kirkpatrick