

**SOUTH DAKOTA BOARD OF TECHNICAL EDUCATION
ACADEMIC AFFAIRS
COMMITTEE RECOMMENDATION**

SUMMARY

Lake Area Technical College
Substantive Program Application
Associate of Applied Science
Agriculture Business

COMMITTEE RECOMMENDATION

The Committee on Academic Affairs and Institutional Effectiveness ("Committee") met on 9/25/2025 to consider the merits of the above application. After review, the Committee makes the following action recommendation to the Board of Technical Education:

- ☒ Approval
- ☐ Disapproval
- ☐ Deferral
- ☐ Other:

PROGRAM DESCRIPTION

Institution	Lake Area Technical College
Program Identifier Code (If applicable)	
Program Title	Agriculture Business
Program Award Level: Check all that apply	☐ Short-Term Certificate ☐ Long-Term Certificate ☐ Diploma ☒ Associate of Applied Science
CIP Code (6 Digit)	1.0102
Projected Implementation Date	8/24/2026
Location	☒ Main Campus ☐ Other:

SUMMARY

Type of Substantive Change	☐ New Program (B.1.1) ☒ Significant Curriculum Modification (B.1.2) ☐ Other:
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Describe the change the institution is seeking approval of.

Lake Area Technical College (LATC) seeks approval for a curriculum modification and program re-organization to its current Agriculture AAS program and connected options, for full implementation in Fall 2026. Currently, LATC offers one Agriculture AAS degree which covers multiple aspects of the agriculture industry. The affiliated options, housed under the Agriculture program's umbrella, include six areas of emphasis that all share a common first year curriculum. However, the LATC Agriculture advisory boards recommended significant programmatic changes to address the growing industry demand for more specialized training and employability of students in ag-related fields.

LATC is ready to complete a comprehensive overhaul of this program's curriculum to better meet industry needs. The college is applying for four new agriculture programs: Precision Agriculture Technology, Production Agriculture, Agriculture Business, and Livestock Production & Management. This application specifically seeks the approval of the Agriculture Business program.

Career opportunities in Agriculture Business range widely from farm and ranch managers to employment in agricultural sales (such as feeds, agriculture inputs, grain and seeds, or livestock) to managers of cooperatives or agricultural processing plants to agriculture bankers and loan officers. Varying employment descriptions also produce an extensive range of salary markers. According to South Dakota LightCast data (2025), positions in the Agricultural Business field include Farm and Ranch Managers with a median annual salary of \$92,960, Sales and Related Workers median wage at \$41,885 to Agricultural Bankers with median annual wage at \$52,730. The South Dakota data also reveals strong growth in occupational categories related to agriculture business at 6% or more.

There is a solid market for graduates trained in Agriculture Business with a wide variety of career opportunities. The proposed LATC program will ensure students have a solid foundation in agricultural knowledge (Ex. crops, soils, animals, and accounting) and with advanced skills in fiscal and business management, data analysis, agricultural law, and workplace experience.

CRITERION 1: MISSION

The program aligns with the system's mission and strategic priorities.

1.1. The program aligns with the system's mission of preparing a technically skilled workforce prepared to serve the state of South Dakota and its regions.

1.2. The program aligns with the system's strategic priorities.

1.1. Describe how the proposed program aligns with the system's mission.

The mission of Lake Area Technical College, as part of the South Dakota Technical College System, is to provide superior, comprehensive technical education that changes lives and launches careers. The structure of LATC's proposed Agriculture Business program ensures that students can complete an AAS college degree aligned with industry expectations while remaining affordable and offering a strong return.

The updated and re-organized Agriculture programs at LATC – Precision Agriculture Technology, Agriculture Business, Production Agriculture, Livestock Production & Management, and Natural Resources Management (an existing program that is currently part of the college's Agriculture Department) – will reflect the structure seen in public administration of agriculture and natural resources programs in South Dakota. Administering these programs together efficiently utilizes the college's resources and emphasizes for students the intersections and complexities of production, business, technology, and sustainability in agriculture and natural resources, no matter the specific career path they take within the industry.

This new program alignment will match expanded regional industry expectations, employment obtainability, and government grants and funding sources, while preserving agriculture and protecting the environment and natural resources through regulation and technical services. Redirecting our Agriculture Business program outcomes to meet these standards will strengthen LATC's Agriculture presence.

CRITERION 2: DEMAND

The program leads to meaningful employment, adequate student enrollment, and/or fulfills needs not being met by existing education and training providers.

- 2.1. The program leads to high-wage occupations that have an average/mean wage greater than the median wage across all occupations.
- 2.2. The program leads to high-demand occupations that have project annual openings (a measure of demand for workers) greater than the average across all occupations or is shown as an economic and/or labor market emerging field for the state of South Dakota and its regions.
- 2.3. The program's student enrollment is adequate to justify program existence.
- 2.4. The program fulfills a demand not being met by existing education and training providers in the region and/or state.

2.1. Describe the wage projections for occupations associated with the proposed program by completing Appendix 2.A.

2.2. Describe the demand projections for occupations associated with the proposed program.

A. Complete Appendix 2.A.

B. If an emerging field for the state of South Dakota, describe the field. Letter(s) of support, detailing demand, should be attached as appendices.

While Agriculture Business is not an emerging field in South Dakota, it is certainly a rapidly evolving area of agriculture that requires graduates to have technical knowledge in the science and best practices of agriculture and acumen in the business space, including financially, through sales and marketing, and organizational management. Lake Area Tech graduates in Agriculture Business will be equipped to help farmers and ranchers make well-informed decisions concerning the inventory and marketing of their crop and/or livestock operations. To further detail the need for the restructured program, three letters of support from members of the LATC Agriculture Business Advisory Board are included with this application.

2.3. Describe projected student enrollment for the proposed program by completing Appendix 2.B.

2.4. Describe how the proposed program fulfills a demand not being met by existing education and training providers in the region and/or state.

A. Identify closely related program(s) that currently exist at other public higher education institutions in the system or state. If none, write "None."

South Dakota State University (SDSU) in Brookings, SD offers undergraduate degrees (BS) in a variety of Agriculture systems and specializations. SDSU Capital City Campus provides an Associate of Science in Agriculture in Pierre, SD. Southeast Technical College in Sioux Falls, SD offers an AAS degree in Business Administration with Agriculture Emphasis and agriculture-related programs, such as Horticulture Technology. Mitchell Technical College in Mitchell, SD offers AAS degrees in ag-related fields and houses the South Dakota Center for Farm/Ranch Management.

B. If applicable: Describe the ways in which the demand is not currently being met by the aforementioned program(s) and provide justification as to why the program should be approved by addressing the following conditions that warrant duplication ([BP 303.2](#)). Select all that apply.

- ☐ Unmet Demand (C.5.1.1)
☒ Industry Partnership (C.5.1.2)

- ☒ Increases Student Access (C.5.1.3)
☐ Other:

I. For each condition selected above, provide a brief justification.

Industry Partnerships

Executives and managers from a variety of agricultural companies in the region have had a role in directing the future of Lake Area Technical College's Agriculture Business program. These partnerships have shaped a program where graduates will possess a strong foundation to manage information, personnel, and business resources, equipping them to be actively engaged in the industry's continued transformation.

Chris Bartelt, CEO of Midwest Veterinary Service and a LATC Agriculture Business Advisory Board member, described the need for well-trained employees in the Agriculture Business field. "As a professional deeply engaged in South Dakota's agricultural sector, I recognize the critical need for a workforce equipped with both practical farming knowledge and sharp business acumen. Our state's economy, rooted in agriculture, thrives when we invest in developing skilled individuals who can navigate the complexities of modern agribusiness. South Dakota's agricultural landscape – from the cornfields of Minnehaha County to the cattle ranches of Harding County – demands professionals who can tackle multifaceted challenges. Today's ag industry requires expertise in areas like financial planning, commodity marketing, regulatory compliance, and team leadership, alongside traditional agricultural know-how. By strengthening the Ag Business program to include specialized training in livestock economics, grain merchandising, and agricultural lending, Lake Area Tech can produce graduates ready to address these real-world demands. The college's reputation for delivering job-ready graduates is well-earned, and an enriched Ag Business curriculum will build on that legacy. A program that combines rigorous classroom instruction with hands-on experiences, such as internships with local co-ops or farm operations, will empower students to take on leadership roles in companies like Midwest Veterinary Service or return to family farms with fresh insights. This investment will not only benefit students but also bolster employers and sustain the vitality of rural communities across South Dakota."

These visionary thoughts were further reinforced by Travis Antonsen, Grain Marketing Expert at the Agtegra Cooperative in Watertown, SD. "I know how vital it is to have employees who not only understand the science of farming but also the business side – finance, marketing, sales, risk management, and people skills. South Dakota's ag economy depends on sharp, well-rounded professionals who can manage operations and drive smart business decisions. Agriculture is becoming more complex, and today's producers and agribusinesses are facing challenges that go far beyond the field. Whether it's managing input costs, marketing grain, navigating regulations, or leading a team, the skills needed for success in ag business have never been more important. Expanding and strengthening the Ag Business program to reflect the real-world needs of our industry, especially in areas like livestock management, commodity merchandising, and ag finance will better prepare students to meet those demands head-on. Lake Area Tech has long been known for producing graduates who are ready to work on day one. A robust Ag Business program that blends classroom knowledge with hands-on learning will ensure students are prepared to either step into leadership roles within ag companies or return home to improve their own operations. It's a win for students, a win for employers like us, and a win for rural communities across South Dakota."

As the LATC Agriculture Business industry partners eloquently state, this program modification is needed to support the growing and changing agriculture landscape in South Dakota. Whether standing in the field, watching the markets, adjusting a business strategy, or communicating a technical process, Agriculture Business graduates will be equipped to make well-informed business decisions by using a variety of resources.

Increases Student Access

Additionally, the overall programmatic change in the LATC Agriculture program from one AAS degree to four AAS degrees (Production Agriculture, Agriculture Business, Precision Agriculture Technology and Livestock Production & Management) allows LATC students greater expertise for the newer technical employment positions that represent the forefront of agriculture in South Dakota. While pursuing one of the four agriculture degrees, LATC students may also choose classes from any of the three other degrees to complement their learning experiences and expand their job preparedness. With several optional courses built into all five degrees (also including Natural Resources

Management), Lake Area Tech students will be excellently prepared for a wide range of agricultural employment prospects. This expanded educational access allows even more career opportunities for our agriculture students.

CRITERION 3: DESIGN

The program's learning assessment strategy, program of study, and delivery methods are designed to provide students with the necessary competencies, as demonstrated through program learning outcomes.

- 3.1. The program is aligned to competencies, as demonstrated through program learning outcomes, that are developed with and continually validated by relevant stakeholders.
- 3.2. The program has a learning assessment strategy to validate student mastery of the program learning outcomes.
- 3.3. The program has an integrated program of study designed to develop and reinforce the program learning outcomes.
- 3.4. The program, when appropriate, includes a work-based learning component that develops and reinforces the program learning outcomes.
- 3.5. The program, when appropriate, offers flexible delivery methods to increase student access.

3.0. Describe the proposed program's alignment with the program award level requirements established in [BP 301.1](#).

A. Does the program align with the requirements?

- ☒ Yes
☐ No (Requesting Exemption)

B. If no: Provide a detailed rationale for program exemption. Specify which requirement(s) in BP 301.1 are not met; cite specific policy sections (e.g., B.3.4), when appropriate. If external organizations are involved (accreditation, regulatory, licensure, etc.), reference the organization name(s), specific requirements (including citations), and a justification for why the exemption should be approved.

3.1. Describe the program learning outcomes.

A. Provide a list of program learning outcomes for each proposed award level. Learning outcomes should be specific to the program.

1. Demonstrate business decision-making skills using data from agricultural production systems.
2. Analyze farm financial records and statements.
3. Apply commodity risk management strategies to support marketing decisions.
4. Utilize precision agriculture and data management tools to improve operational efficiency.
5. Implement agricultural laws, compliance regulations, and safety protocols.
6. Communicate effectively using agricultural terminology and business concepts.

1. Describe the how the program learning outcomes were developed and validated.

Agriculture Business program learning outcomes were developed by LATC faculty and administrative staff. The program outcomes were then thoroughly discussed and approved by the LATC Agriculture Business Advisory Board members and industry partners from South Dakota.

3.2. Describe the program's learning assessment strategy.

- A. Describe how students will demonstrate mastery of the program learning outcomes. Description should be specific to the program's learning assessment plan vs. the institutional assessment plan.

All courses will contain assessment components. The assessments will be comprised of skills assessments, as well as formative and summative assessments both in the classroom and field setting.

All program courses leading to the degree will require a pass rate of at least 80% mastery. Post-graduation surveys conducted by employers and the college's placement report also help to determine the success of the program's graduates.

All LATC programs use SPOL assessment software to map curriculum and gather assessment data throughout the year. Annually, each department analyzes the assessment data. In addition, under the guidance of our Academics Department, each program creates an assessment and improvement plan annually.

- B. Is the program preparation for a professional licensure and/or certification examination?

- ☐ Yes (Detail in Appendix 4: Section 3)
☒ No

3.3. Describe the program of study by completing Appendix 3.

3.4. Describe the program's work-based learning component.

- A. Does the program have a work-based learning component? If so, select all that apply.

- | | |
|--|-----------------------------------|
| ☐ None | ☐ Clinical |
| ☐ Apprenticeship | ☐ Capstone |
| ☒ Internship or Externship | ☐ Other: |

- B. If none, describe why.

3.5. Describe the program's delivery methods.

- A. Select the program's primary delivery method(s)¹. Select all that apply.

- | | |
|---|---|
| ☒ On Campus | ☐ Apprenticeship |
| ☐ Online | ☐ Other: |
| ☐ Blended | |

- B. Describe how flexible delivery methods are being leveraged to increase student access.

Due to the specific hands-on lab requirements of this degree (Ex. specialized software and programs; accounting spreadsheets; collecting, recording and analyzing data from planting and harvesting equipment or livestock inventory), the primary delivery method for this program will continue to be in-person. At this point, LATC does offer online options for some of the Agriculture Business courses. Additionally, we plan to offer face-to-face instruction with both full-time and part-time student pathways. Agriculture Business practices are based on very specific, collected product data impacting budgetary cash flow, expenditures, improvements, equipment purchases, and the like. Many times, the analysis takes place in fields or feedlots. For this reason, the program

¹ **In Person:** 100 percent of courses are available in-person. **Online:** 100 percent of courses are available via distance learning. Delivery is only via the Internet. **Blended:** Delivery includes a required combination of both in-person and online courses. If a student has the option to take courses online, but is not required to do so, the program is not necessarily considered blended.

does not lend itself to an entirely online format at this time. However, after implementing the new curriculum for a few years, LATC will reevaluate to assess if a blended delivery method is feasible.

CRITERION 4: ALIGNMENT

The program is vertically aligned to an education and training pathway.

- 4.1. The program is vertically aligned to an education and training pathway, reflecting efficient articulation of:
 - 4.1.1. Non-degree credential/industry certification
 - 4.1.2. Certificate to diploma
 - 4.1.3. Diploma to associate of applied science
 - 4.1.4. Associate of applied science to baccalaureate

4.1. Describe the alignment of the proposed program along an education and training pathway.

A. Complete Appendix 4.

B. Describe the projected alignment between the proposed program and existing academic programs within the technical college system.

Under the Agriculture umbrella at LATC, four newly proposed curriculum modifications/realignments will be created to replace the previous Agriculture AAS degree. Production Agriculture, Precision Agriculture Technology, Agriculture Business and Livestock Production and Management will now each exist as independent Associate of Science degrees. The Natural Resources Management degree also falls under the agriculture support system and aligns well with LATC's proposed agriculture programs.

- The Agriculture Business AAS shares 34 stackable credentials with the Precision Agriculture Technology AAS.
- The Agriculture Business AAS shares 35 stackable credentials with the Livestock Production and Management AAS.
- The Agriculture Business AAS shares 37 stackable credentials with the Production Agriculture AAS.
- Natural Resources Management AAS shares 16 stackable credentials with the Business Agriculture AAS.

C. As applicable: Insert any additional comments here.

CRITERION 5: CAPACITY

The institution demonstrates the internal and external resources necessary to develop, implement, and sustain the program.

- 5.1. The institution demonstrates the financial resources necessary to develop, implement, and sustain the program.
- 5.2. The institution demonstrates appropriately certified and qualified faculty are in place with expertise in content, pedagogy, and related industry to develop and validate the program learning outcomes.
- 5.3. The institution's physical facilities (e.g., classrooms, laboratories) reflect current industry and/or occupational standards necessary to develop and validate the program learning outcomes.
- 5.4. The institution's equipment and technology resources reflect current industry and/or occupational standards necessary to develop and validate the program learning outcomes.
- 5.5. The institution demonstrates the ability of the program to meet institutional and programmatic accreditation standards, as applicable.

5.1. Describe the institution's financial capacity to develop, implement, and sustain the proposed program.

A. Complete Appendix 5.

B. Describe the proposed program's anticipated local fee structure. Description of fee structure should be specific to the program.

LATC students typically pay a per-semester department fee to assist in covering the costs of contractual services, rent, supplies, and travel associated with operating the academic programs in which they are enrolled. Agriculture students currently pay \$629 per semester (Fall & Spring). In addition, courses with specific credentialing or laboratory expenses (ex. Artificial Insemination certification) pay a course fee to directly cover the cost associated with that course. For the purposes of this proposed program change, the current department fee was used as placeholder. When the FY27 program budgets are created in February 2026, Lake Area Tech will determine the appropriate Department and Course fees for each of the new Agriculture programs.

C. What is the proposed program weight factor (funding formula)?

- ☒ Standard Cost (1)
- ☐ High Cost (3)
- ☐ High Cost, Low Density (5)

I. Provide rationale related to the selection of proposed program weight factor.

All Agriculture programs in the technical college system are currently Standard Cost programs.

D. Describe the contingency plans in case anticipated enrollments, income, or resources do not materialize.

Existing classroom spaces at LATC will be used to deliver face-to-face instruction. Additionally, labs and shops, contain specialized software, technology, and equipment which provide state of the art simulations to develop and refine critical thinking and hands-on skills. The agriculture programs have been a hallmark of the LATC student experience for over 50 years, and enrollment in these courses has been historically strong and vibrant. We do not expect this curriculum modification and/or realignment to negatively impact those numbers in any significant manner. In fact, the college expects stronger student enrollments with the emphasis on specializations in the industry and the anticipated needs for workers and entrepreneurs in the field as the Baby Boomer generation continues to retire out of the workforce.

5.2. Describe how the institution will ensure the appropriate certified and qualified faculty are in place with the expertise in content, pedagogy, and the related industry to develop and validate the program learning outcomes.

A. Describe the necessary qualifications of faculty who will be involved in the program.

The instructors within the newly modified programs – Precision Agriculture Technology, Production Agriculture, Business Agriculture and Livestock Production and Management – will have earned an AAS degree at the minimum or achieved seven years of industry experience in the specific content areas while working to gain an AAS degree in a related field. The General Education instructors in the updated Agriculture programs will be Masters prepared in each specific content area as South Dakota university Board of Regents and Board of Technical Education college transfer policies outline.

B. Does the instructorship(s) currently exist in the roster of Instructor Salary Support market value determinations?

- ☒ Yes
☐ No

I. If no: Describe the SOC(s) codes and titles that will need to be added.

5.3. Describe the existing and/or new physical facilities that will be utilized or needed to reflect current industry and/or occupational standards. Outline short- and long-term investments in physical facilities.

The present facilities at LATC will serve this program curriculum modification and realignment well. The educational classrooms, labs and shops within the Agricultural wing of LATC and at the college farms are excellent learning spaces. When needed, industry partners provide on-site work spaces.

5.4. Describe the existing and/or new equipment and technology resources that will be utilized or needed to reflect current industry and/or occupational standards. Outline short- and long-term investments in equipment and technology resources.

At present, the Agriculture Business program has a wealth of local guest speakers, presenting both on- and off-site, including ag financial advisors, bankers, commodity marketers, and industry partners who offer a rich diversity of advice and information, along with providing innovative technological marketing tools and software programs. The agriculture computer labs and classrooms will continue to be utilized. Further, the Agriculture Business Advisory Board has thoroughly reviewed the curriculum and software requirements, supporting their alignment to industry standards and performance expectations.

5.5. Describe the institution's and proposed program's ability to meet institutional and programmatic accreditation standards, as applicable.

A. Specify Higher Learning Commission (HLC) requirements.

- ☒ Notification Only
☐ Approval Required
☐ None
☐ Other:

B. Is there an accrediting or professional organization that has established standards for the program?

- ☐ Yes

☒ No

- C. If yes: Describe the ability of the proposed program to meet professional accreditation standards. If the program does not or cannot meet those standards, describe the area(s) in which it is deficient and indicate steps needed to qualify the program for accreditation. Provide the date by which the program would be expected to be fully accredited.

If the institution does not plan to seek specialized accreditation, provide a rationale for not seeking.

No professional accreditation program presently exists for Agriculture Business. If an accreditation process is found in the future, Lake Area Tech will investigate the standards and make a determination about applying for that accreditation.

SOUTH DAKOTA BOARD OF TECHNICAL EDUCATION
Appendix 2.A: Labor Market Information

Lake Area Technical College
Agriculture Business

SOUTH DAKOTA								
SOC* CODE	SOC* TITLE	AVERAGE ANNUAL OPENINGS	2023 EMPLOYMENT	2033 EMPLOYMENT	NUMERIC CHANGE: 2018-2028	PERCENT CHANGE: 2018-2028	MEDIAN: ANNUAL WAGE (2020)	AVERAGE: ANNUAL WAGE (2020)
00-0000	Total, All Occupations	62,664	491,588	526,251	34,663	7.1	\$36,823	\$44,961
11-9013	Farmers, Ranchers, and Other Agricultural Managers SD DLR	2,415	21,349	22,751	1,402	6.57	\$ 92,960.00	\$ 99,990.00
11-9013	Farmers, Ranchers, and Other Agricultural Managers Lightcast		1,536	1,866	330	21	\$ 41,885.00	
41-9099	Sales and Related Workers, All Other SD DLR	15	98	104	6	6.12	\$ 52,730.00	\$ 54,830.00
	Agricultural Banker Job Posting https://ag hires.com/career/286396/agricultural-banker-in-south-dakota-webster							

NATIONAL								
SOC* CODE	SOC* TITLE	AVERAGE ANNUAL OPENINGS	2023 EMPLOYMENT	2033 EMPLOYMENT	NUMERIC CHANGE: 2019-2029	PERCENT CHANGE: 2019-2029	MEDIAN: ANNUAL WAGE (2020)	AVERAGE: ANNUAL WAGE (2020)
11-9013	Farmers, Ranchers, and Other Agricultural Managers BLS	88,500	856,600	842,900	-13,700	-1.6	\$ 87,980.00	\$ 90,160.00
41-9099	Sales and Related Workers, All Other BLS	18,300	137,200	142,600	5,400	3.9	\$ 46,370.00	\$ 54,150.00

SOURCE: South Dakota Department of Labor and Regulation, Labor Market Information Center (LMIC) (<https://dlr.sd.gov/lmic/>)
DATE: 04/16/2025

NOTES:

SOURCE: Lightcast Data https://analyst.lightcast.io/analyst/?t=4pByG#h=2iNgt68SaYILRnDQveBUGjTgk9e&page=occupation_snapshot&vertical=standard&nation=us
DATE: 04/16/2025

NOTES: Stated that of the 509 graduates within this occupational field, 104 of them completed Ag Business degrees in 2023 in the state of South Dakota.

SOURCE: AgHires <https://ag hires.com/career/286396/agricultural-banker-in-south-dakota-webster>
DATE:

NOTES: Salary not found, job posting to show reference to additional jobs within field.

SOURCE: BLS <https://www.bls.gov/emp/tables/occupational-projections-and-characteristics.htm>
DATE: 04/30/2025

NOTES:

SOUTH DAKOTA BOARD OF TECHNICAL EDUCATION**Appendix 2.B: Student Demand Projections**

Lake Area Technical College

Agriculture Business

	YEAR 1	YEAR 2	YEAR 3
	2026-27	2027-28	2028-29
Student Full-Time Equivalent (FTE)	73	77	86
Headcount: Full-Time	60	60	60
Headcount: Part-Time	25	30	40
Headcount: Total	85	90	100
Total Program or Site Capacity	126	126	126

SOUTH DAKOTA BOARD OF TECHNICAL EDUCATION

Appendix 3: Program of Study

Lake Area Technical College

Agriculture Business

MONTHS:	18
SEMESTERS:	4
TOTAL CREDITS:	70

PREFIX AND NUMBER	TITLE	CREDITS	DESCRIPTION	EXISTING COURSE
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I. GENERAL EDUCATION CORE

COMM 101 or ENGL 101 or CMST 101	Communications and Career Strategies, Composition, Foundations of Communication	3	COMM 101 – Emphasis on the essentials of written and oral communication; also covers effective communication during the job search process. ENGL 101 – This course concentrates on all phases of the writing/communication process. Prewriting, drafting, revising and editing are used to help students develop clear, concise and unified writing styles that will serve them well in their chosen career areas. *College transferable. CMST 101 - The course introduces the study of speech fundamentals and critical thinking through frequent public speaking practice, including setting, purpose, audience, and subject. *College transferable.	Y
MATH 100 or MATH 101 or MATH 114	Applied General Math, Intermediate Algebra, College Algebra	3	MATH 100 - This course will provide emphasis on the ability to understand and apply math skills to solve problems in the world of work. MATH 101 - This course will enhance students' problem-solving skills and prepare them for mathematical problems to be faced in future courses and careers. MATH 114 - This course includes a study of the theory and application of functions, including function notation, graphs, inverses, polynomial, rational, exponential, logarithmic, and other functions. May also include additional topics, such as sequences, series, the binomial theorem, linear systems, matrices, or complex numbers. *College transferable.	Y
PSYC 100 or PSYC 101	Psychology of Human Relations, General Psychology	3	PSYC 100 - Human relations is a practical course that presents the interpersonal "people skills" that are important in the modern workplace. Topics include communicating effectively, assertive behavior, teamwork, conflict resolution, and work ethics. Students will gain awareness of their individual work styles and how to work effectively with people with different styles in a diverse workplace. Specific techniques for coping with job stress and managing anger will also be emphasized. Class activities and assignments will stress practical application of skills. Course is also applicable in personal settings, such as family, social, and school. PSYC 101 - This course is an introduction survey to the field of psychology with consideration of the biological bases of behavior, sensory and perceptual processes, learning and memory, human growth and development, social behavior and normal and abnormal behavior. *College transferable.	Y
ECON 201	Principles of Microeconomics I	3	ECON 201 - This course studies the basic economic concepts as they relate to consumer, worker and business decisions. Emphasis is given to satisfaction maximizing behavior by individuals and profit maximization by firms. Market structures are thoroughly analyzed regarding their effect on price, output and competitiveness.	Y
CSC 102 or CSC 105	Windows Application for Technicians, Computer Software Applications	3	CSC 102 - Using a Windows-based computer and related software, students will gain a basic operational knowledge of the Windows operating system, Microsoft Office 2021, word processing, spreadsheet, and presentation software. CSC 105 - Using a Windows-based microcomputer and related software, the students will gain an understanding and basic operational knowledge about the Windows operating systems, Microsoft Office word processing, spreadsheets, database management, and presentation software. The students will demonstrate this knowledge by scoring at least 80% on assignments and related objective and performance tests.	Y
SUBTOTAL OF GENERAL EDUCATION CREDITS:		15	TOTAL NEW COURSES:	0

II. PROGRAM CORE

SOUTH DAKOTA BOARD OF TECHNICAL EDUCATION
Appendix 3: Program of Study

Lake Area Technical College
Agriculture Business

AGR 100	Soils & Fertilizers	2	This course provides students with a foundational understanding of soil properties including structure, texture, tilth, permeability, soil types, organic matter, and soil chemistry. Emphasis is placed on applying techniques to improve soil quality and prevent erosion caused by water and wind. Students will also explore the role of fertilizers, including their sources, components, and functions. By the end of the course, students will be able to formulate custom fertilizer blends and calculate pricing to meet specific agronomic needs.	N
AG 102	Introduction to Agronomy	2	This course provides students the understanding of how crops are utilized, production systems and agroecology within the region. The course will also cover difference in seeds and cover the growth stages for major crops grown within this region.	Y
AGR 110	Animal Science & Husbandry	2	This introductory course provides students with a broad overview of livestock industry, covering ruminant and monogastric species, focusing on their production, reproduction, genetics, nutrition, and basic husbandry. Emphasis is placed on understanding livestock behavior, facility design, and handling techniques to ensure the safe, humane, and welfare-oriented care of animals.	N
AGR 233	Commodity Marketing I	3	This course introduces students to the global and domestic factors influencing commodity markets, including export trends and technology. Students will explore futures markets, price risk management strategies, and the use of forward contracts, hedging, and options to manage grain marketing decisions. Emphasis is placed on understanding basis, market mechanics, and real-world application through contract analysis and scenario-based learning.	Y
AGR 127	Ag Accounting	3	This introductory course covers the fundamentals of financial recordkeeping for farm and ranch operations, focusing on accounting principles, financial statements, and the tracking of income and expenses.	N
AGR 156	Farm Financial Management I	3	Farm Management I focuses on core financial principles essential to operating a successful agricultural business. Students learn to build balance sheets, analyze cash flow, understand loans and collateral, and work with ag lenders. A final project challenges students to manage a simulated farm scenario, applying financial tools and marketing decisions in a real-world context.	N
AGR 105	Ag Safety	1	Agriculture is a diverse industry, encompassing all sorts of jobs, opportunities, and potential safety hazards. This class provides students with basic knowledge of vehicle and trailer safety, department of transportation rules and regulations, emergency livestock planning, electrical and grain bin safety, and general fire and emergency response training.	Y
AG 124	Ag Chemicals	2	This course is designed to familiarize the student with resources and information required to develop a sound agronomic crop plan. Preparing students for positions as agronomists who will be making these recommendations to area producers by teaching the need for IPM, basic measurements, SDS and label understanding, annuals, perennials, and biennials and when to target them.	Y
AG 200	Livestock Nutrition & Feeding	2	Livestock Nutrition and Feeding will provide students the knowledge of the 6 essential nutrients required for animal nutrition, nutrient requirements, digestion, ration formulation, and feeding management for livestock.	Y
AGR 232	Farm Financial Management II	3	This course focuses on the financial management of farm operations, with in-depth conversations on marginal analysis, cost of production, cash flow planning, insurance, taxes, investment evaluation, and enterprise analysis.	N
AGR 256	Ag Retail Management	3	This course introduces students to the principles and practices of managing agricultural retail businesses, with emphasis on sales, customer service, inventory control, marketing, and the day-to-day operations of ag input and service suppliers.	Y
AGR 262	Precision Ag Data Analysis	3	This course introduces the fundamentals of Geographic Information Systems (GIS) and their application in precision agriculture. Students will learn to import/export, identify, management, and organize various agricultural data types using both desktop and mobile software platforms. The course also covers wireless data transfer methods and explores practical software tools commonly used for data collection and management in the field.	Y

SOUTH DAKOTA BOARD OF TECHNICAL EDUCATION
Appendix 3: Program of Study

Lake Area Technical College
Agriculture Business

AGR 163	Principles of Selling	3	This course provides an overview of the agricultural sales process and is designed to familiarize students with the profession of selling in agriculture and related industries, including both tangible and intangible products. Emphasis is placed on selling and buying strategies, customer relations, and ethical considerations throughout the sales process.	Y
AGR 237	Agribusiness Law & Compliance	3	This course introduces students to the legal principles and regulations that impact agricultural operations, with a focus on understanding and navigating contracts, property rights, regulatory compliance, and laws related to land use, family matters, and environmental stewardship.	Y
AGR 120	Seed and Grain Technology	2	This course explores biological, agronomic, and economic principles of seed and Grain production. Students will study crop genetics, seed traits, hybrid selection, grain grading, and proper storage practices. Emphasis is placed on crop rotation planning, seed certification, and technologies used to enhance yield and quality in modern production systems.	Y
AGR 165	Business Supervised Occupational Experience I	5	Students will gain real-world experience by completing a supervised internship in an agriculture business setting. This course emphasizes hands-on learning, professional skill development, and application of classroom knowledge. Regular check-ins and evaluations ensure students meet learning objectives and grow in their chosen career path.	Y
AG 247	Business Supervised Occupational Experience II	5	Students will gain real-world experience by completing a supervised internship in an agriculture business setting. This course emphasizes hands-on learning, professional skill development, and application of classroom knowledge as a capstone class. Regular check-ins and evaluations ensure students meet learning objectives and grow in their chosen career path.	Y
AGR XXX	2nd Fall Semester Electives	3	AGR 235, AGR 202, AGR 215	N
AGR, ACCT	2nd Spring Semester Electives	5	AGR 226, AGR 212, AGR 254, ACCT 224	Y
SUBTOTAL OF PROGRAM CREDITS:		55	TOTAL NEW COURSES:	6

SOUTH DAKOTA BOARD OF TECHNICAL EDUCATION

Appendix 4: Alignment Projection

Lake Area Technical College

Agriculture Business

TOTAL CREDITS IN PROPOSED PROGRAM:

70

I. STACKABLE OPPORTUNITIES							
PROGRAM NAME		Short-term Certificate		Existing	If Forthcoming: Projected Timeline	Total Credits in Stackable Program	How many PROPOSED PROGRAM credits are in this stackable program opportunity?
Precision Agriculture Technology		Long-term Certificate	X	Forthcoming	Fall, 2026	72	34
		Diploma					
	X	AAS					
PROGRAM NAME		Short-term Certificate		Existing	If Forthcoming: Projected Timeline	Total Credits in Stackable Program	How many PROPOSED PROGRAM credits are in this stackable program opportunity?
Natural Resources Management		Long-term Certificate	X	Forthcoming		71	16
	X	Diploma					
	X	AAS					
PROGRAM NAME		Short-term Certificate		Existing	If Forthcoming: Projected Timeline	Total Credits in Stackable Program	How many PROPOSED PROGRAM credits are in this stackable program opportunity?
Production Agriculture		Long-term Certificate	X	Forthcoming	Fall, 2026	70	37
		Diploma					
	X	AAS					
PROGRAM NAME		Short-term Certificate		Existing	If Forthcoming: Projected Timeline	Total Credits in Stackable Program	How many PROPOSED PROGRAM credits are in this stackable program opportunity?
Livestock Production and Management		Long-term Certificate	X	Forthcoming	Fall, 2026	71	35
		Diploma					
	X	AAS					

II. ARTICULATION AGREEMENTS (BACCALAUREATE)						
PROGRAM NAME	COLLEGE OR UNIVERSITY	X	Existing	If Forthcoming: Projected Timeline	Total Credits in Bachelor's Degree	How many PROPOSED PROGRAM credits are projected to be accepted in the articulation agreement?
Agriculture	South Dakota State University (SDSU)	X	Forthcoming	Fall, 2026	120	***
PROGRAM NAME	COLLEGE OR UNIVERSITY		Existing	If Forthcoming: Projected Timeline	Total Credits in Bachelor's Degree	How many PROPOSED PROGRAM credits are projected to be accepted in the articulation agreement?
			Forthcoming			
PROGRAM NAME	COLLEGE OR UNIVERSITY		Existing	If Forthcoming: Projected Timeline	Total Credits in Bachelor's Degree	How many PROPOSED PROGRAM credits are projected to be accepted in the articulation agreement?
			Forthcoming			

***Existing articulation agreement with SDSU is being revised to match the updated LATC Ag programs.

III. LICENSURE AND CERTIFICATION OPPORTUNITIES		
<i>The PROPOSED PROGRAM will qualify students to pursue the following licensure and/or certification opportunities:</i>		
LICENSURE/CERTIFICATION	OVERSIGHT ORGANIZATION	Will the licensure/certification require reporting per SDCL 13-1-61?
NA		
LICENSURE/CERTIFICATION	OVERSIGHT ORGANIZATION	Will the licensure/certification require reporting per SDCL 13-1-61?
LICENSURE/CERTIFICATION	OVERSIGHT ORGANIZATION	Will the licensure/certification require reporting per SDCL 13-1-61?

SOUTH DAKOTA BOARD OF TECHNICAL EDUCATION

Appendix 5: Financial Projections

Lake Area Technical College

AAS in Ag. Business, Livestock Production & Management, Precision Ag. Technology, and Production Ag.**

	YEAR 1	YEAR 2	YEAR 3
	2026-27	2027-28	2028-29
Student FTE	176	194	224

I. PROJECTED EXPENDITURES

A. ONE-TIME

New/Renovated Facilities	\$ -	\$ -	\$ -
Equipment	\$ -	\$ -	\$ -
Other	\$ -	\$ -	\$ -
Sub-Total: One-time	\$ -	\$ -	\$ -

B. RECURRING

B.1. PERSONNEL

FTE (Faculty and Staff)	9	9	11
Salary & Benefits	\$ 854,239.94	\$ 875,595.93	\$ 989,075.83

B.2. OPERATING

Rental / Lease	\$ 26,250.00	\$ 27,562.50	\$ 28,940.63
Contractual Services	\$ 77,700.00	\$ 81,585.00	\$ 85,664.25
Equipment	\$ -	\$ -	\$ -
Supplies	\$ 52,500.00	\$ 55,125.00	\$ 57,881.25
Travel	\$ 21,000.00	\$ 22,050.00	\$ 23,152.50
Other	\$ 408,663.40	\$ 448,533.00	\$ 508,337.40
Sub-Total: Operating	\$ 586,113.40	\$ 634,855.50	\$ 703,976.03
Total: Recurring	\$ 1,440,353.34	\$ 1,510,451.43	\$ 1,693,051.86

TOTAL EXPENDITURES (A + B)	\$ 1,440,353.34	\$ 1,510,451.43	\$ 1,693,051.86
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II. PROJECTED REVENUE

Tuition	\$ 686,400.00	\$ 756,600.00	\$ 873,600.00
State Fees	\$ 232,320.00	\$ 256,080.00	\$ 295,680.00
Local Fees	\$ 295,815.00	\$ 324,675.00	\$ 367,965.00
Location-Based Fees	\$ -	\$ -	\$ -
State Sources	\$ 1,052,952.66	\$ 114,928.25	\$ 1,223,701.74
Federal Sources	\$ -	\$ -	\$ -
Private Grants or Gifts	\$ -	\$ -	\$ -
Other	\$ 193,827.50	\$ 212,737.50	\$ 241,102.50

TOTAL REVENUE	\$ 2,461,315.16	\$ 1,665,020.75	\$ 3,002,049.24
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REVENUE - EXPENDITURES	\$ 1,020,961.82	\$ 154,569.32	\$ 1,308,997.38
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*Projections are held constant based on current fiscal year. Inflation or rate changes are not factored.

Notes:

****Board staff has approved LATC's submission of one consolidated budget for Ag. Business, Livestock Production & Management, Precision Ag. Technology, and Production Ag. due to the nature of the proposed changes.**



April 14, 2025
South Dakota Board of Technical Education
800 Governor's Drive
Pierre, SD 57501

Dear Board Members,

I am writing to strongly endorse the expansion and enhancement of the Ag Business program at Lake Area Technical College in Watertown. As a professional deeply engaged in South Dakota's agricultural sector, I recognize the critical need for a workforce equipped with both practical farming knowledge and sharp business acumen. Our state's economy, rooted in agriculture, thrives when we invest in developing skilled individuals who can navigate the complexities of modern agribusiness.

South Dakota's agricultural landscape—from the cornfields of Minnehaha County to the cattle ranches of Harding County—demands professionals who can tackle multifaceted challenges. Today's ag industry requires expertise in areas like financial planning, commodity marketing, regulatory compliance, and team leadership, alongside traditional agricultural know-how. By strengthening the Ag Business program to include specialized training in livestock economics, grain merchandising, and agricultural lending, Lake Area Tech can produce graduates ready to address these real-world demands.

The college's reputation for delivering job-ready graduates is well-earned, and an enriched Ag Business curriculum will build on that legacy. A program that combines rigorous classroom instruction with hands-on experiences, such as internships with local co-ops or farm operations, will empower students to take on leadership roles in companies like Midwest Veterinary Service or return to family farms with fresh insights. This investment will not only benefit students but also bolster employers and sustain the vitality of rural communities across South Dakota.

I wholeheartedly support the growth of this program and believe it will shape a resilient, capable workforce to carry our state's agricultural legacy forward. Thank you for considering this opportunity to advance technical education in South Dakota.

A handwritten signature in black ink, appearing to read 'Chris Bartelt', with a stylized flourish at the end.

Chris Bartelt
Chief Operating Officer
Midwest Veterinary Service
LATC Ag Business Advisory Board



March 31, 2025

South Dakota Board of Technical Education
800 Governor's Drive
Pierre, SD 57501

Dear Committee,

I'm writing to express my support for the continued growth and development of the Ag Business program at Lake Area Technical College. As a past Ag Business graduate of Lake Area Tech and someone working in the agriculture industry, I know how vital it is to have employees who not only understand the science of farming but also the business side—finance, marketing, sales, risk management, and people skills. South Dakota's ag economy depends on sharp, well-rounded professionals who can manage operations and drive smart business decisions.

Agriculture is becoming more complex, and today's producers and agribusinesses are facing challenges that go far beyond the field. Whether it's managing input costs, marketing grain, navigating regulations, or leading a team, the skills needed for success in ag business have never been more important. Expanding and strengthening the Ag Business program to reflect the real-world needs of our industry, especially in areas like livestock management, commodity merchandising, and ag finance will better prepare students to meet those demands head-on.

Lake Area Tech has long been known for producing graduates who are ready to work on day one. A robust Ag Business program that blends classroom knowledge with hands-on learning will ensure students are prepared to either step into leadership roles within ag companies or return home to improve their own operations. It's a win for students, a win for employers like us, and a win for rural communities across South Dakota. I'm also proud to sit on the Ag Business Advisory Board at Lake Area Tech.

I fully support this initiative and am confident that it will play a key role in shaping the future of our ag workforce. Thank you for your time and consideration.

Sincerely,

A handwritten signature in black ink, appearing to read 'Travis Antonsen', with a long horizontal flourish extending to the right.

Travis Antonsen
SVP Grain Marketing and Rail Logistics
Agtegra Cooperative

May 15, 2035

South Dakota Board of Technical Education

800 Governor's Drive

Pierre, SD 57501

Dear Committee,

As a proud member of the Ag Business Program Advisory Board at Lake Area Technical College, I am writing to express my full support for the ongoing and proposed changes within the program. These enhancements are not only reflective of current industry needs but are also directly supported by our board's guidance and experience.

The agriculture industry is rapidly evolving, with increased emphasis on technology integration, interpersonal communication, sustainability practices, and business acumen. Lake Area Technical College's Ag Business Program has consistently demonstrated a proactive approach to these changes—ensuring students are not only academically prepared but also workforce-ready upon graduation.

Our advisory board, composed of agricultural professionals and industry stakeholders, has worked closely with program faculty and leadership to evaluate curriculum needs, identify emerging trends, and ensure students are receiving relevant and applied instruction. The recent and upcoming adjustments to the program reflect a commitment to these values and ensure alignment with what we, as employers and partners, expect from graduates entering the workforce.

We have seen firsthand the caliber of students graduating from the program—individuals who arrive with a solid foundation in agribusiness principles, practical experience, and the professionalism necessary to contribute meaningfully from day one. These positive strides are a direct result of Lake Area Tech's responsiveness to industry feedback and their ongoing investment in student success.

In short, the Ag Business Program at Lake Area Technical College continues to set a high standard for agricultural education in the region. The support and involvement of the advisory board underscores the importance of this program to the local and regional ag industry, and we look forward to continuing our collaboration as the program evolves.

Sincerely,

Betty McGraw



Human Resources Director
Agwrx Cooperative

