



**SOUTH DAKOTA BOARD OF REGENTS  
ACADEMIC AFFAIRS FORMS**

**New Certificate**

<b>UNIVERSITY:</b>	<b>SDSU</b>
<b>TITLE OF PROPOSED CERTIFICATE:</b>	<b>Livestock and Animal Products Evaluation</b>
<b>INTENDED DATE OF IMPLEMENTATION:</b>	<b>2021-2022 Academic Year</b>
<b>PROPOSED CIP CODE:</b>	<b>01.0903</b>
<b>UNIVERSITY DEPARTMENT:</b>	<b>Animal Science</b>
<b>BANNER DEPARTMENT CODE:</b>	<b>SANS</b>
<b>UNIVERSITY DIVISION:</b>	<b>Agriculture, Food &amp; Environmental Sciences</b>
<b>BANNER DIVISION CODE:</b>	<b>3F</b>

**Please check this box to confirm that:**

- The individual preparing this request has read [AAC Guideline 2.7](#), which pertains to new certificate requests, and that this request meets the requirements outlined in the guidelines.
- This request will not be posted to the university website for review of the Academic Affairs Committee until it is approved by the Executive Director and Chief Academic Officer.

**University Approval**

*To the Board of Regents and the Executive Director: I certify that I have read this proposal, that I believe it to be accurate, and that it has been evaluated and approved as provided by university policy.*

  
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Institutional Approval Signature  
*President or Chief Academic Officer of the University*

4/30/2021  
\_\_\_\_\_  
Date

**1. Is this a graduate-level certificate or undergraduate-level?**

Undergraduate Certificate  Graduate Certificate

**2. What is the nature/ purpose of the proposed certificate? Please include a brief (1-2 sentence) description of the academic field in this certificate.**

The Livestock and Animal Products Evaluation Certificate was developed to support the strength of the of the livestock and animal products industries in the state of South Dakota and the region. The proposed certificate will recognize students that have developed expertise in visual and data driven evaluation of livestock and animal products. These individuals will also be potential employees in and/or a resource to 4-H, FFA, county fairs, livestock shows and organizations that require the services of people with expertise in these fields. Coursework will focus on recognized standards of evaluation, including United States

Department of Agriculture grading systems, industry data such as expected progeny differences, and visual evaluation of livestock and animal products.

The Livestock and Animal Products Evaluation Certificate is designed to be a value-added credential predominantly for majors in the College of Agriculture, Food and Environmental Sciences, including but not limited to Animal Science, Dairy Production, Dairy Manufacturing, and Agricultural Education, Communication and Leadership majors.

SDSU does not request new state resources for the proposed certificate.

**3. If you do not have a major in this field, explain how the proposed certificate relates to your university mission and strategic plan, and to the current Board of Regents Strategic Plan 2014-2020.**

The Livestock and Animal Products Evaluation Certificate supports the mission of SDSU as provided in SDCL 13-58-1: *Designated as South Dakota's land grant university, South Dakota State University, formerly the state college of agriculture and mechanical arts, shall be under the control of the Board of Regents and shall provide undergraduate and graduate programs of instruction in the liberal arts and sciences and professional education in agriculture, education, engineering, home economics, nursing and pharmacy, and other courses or programs as the Board of Regents may determine.*

The proposed certificate also supports the goals stated in the South Dakota Board of Regents Strategic Plan 2014-2020:

*Goal 2 – Academic Quality and Performance*

- Grow the number of students participating in experiential learning.
- Develop and grow high-quality and distinct academic programs to meet the needs of diverse students and market demands.

*Goal 3 – Research and Economic Development*

- Encourage campuses to increase recruitment and retention of undergraduate STEM majors.
- Encourage development of academic programs and certificates that align with existing and future state workforce needs.

In addition, this undergraduate certificate aligns with the SDSU's Imagine 2023 strategic plan<sup>1</sup> by offering a student-centered education. Specifically, the courses and certificate will contribute to the attainment of *Strategic Goal 1 – Excellence through Transformative Education*. This will be a high-quality academic program that utilizes active and innovative teaching and learning practices and incorporates multiple cross-curricular skills, including inquiry and analysis, critical thinking, teamwork and problem-solving.

**4. Provide a justification for the certificate program, including the potential benefits to students and potential workforce demand for those who graduate with the credential.**

The undergraduate certificate is designed to be a value-added credential. Given strong interest in livestock, meats, dairy and food industries, individuals with the type of training provided by

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<sup>1</sup> <https://www.sdstate.edu/imagine-2023-aspire-discover-achieve>

this certificate program will be in high demand. Individuals may be in career paths that include livestock evaluation and marketing, quality assurance in meats or dairy foods industries, or an array of other livestock and meats oriented careers which require some knowledge of visual evaluation of livestock or animal products, such as livestock herd managers, nutrition consultants, or reproductive/breeding technologists. Expertise in these areas will also be an asset to high school agricultural (career and technical) education teachers and adult and informal education teachers such as Extension agents and specialists. Overall employment of agricultural and food scientists is projected to grow 6 percent from 2019 to 2029, faster than the average for all occupations. Employment of agricultural and food scientists is projected to grow as research into agricultural production methods and techniques continues.<sup>2</sup> Employment for postsecondary teachers in a wide array of subjects is expected to grow at 9%, much faster than average. Employment for high school teachers is expected to grow 4%, about average for all occupations. The additional credentials provided by this certificate will make individuals more marketable for teaching specific subjects at both the post-secondary and high school levels.<sup>2</sup>

Additionally, the certificate would contribute to secondary income opportunities for individuals in nearly any career field. The livestock industry includes many exhibitions and “shows” at local, regional and national levels, for which individuals are hired to judge and rank the livestock that is exhibited at the show. These opportunities to judge may range from a few hours to a few days with pay scales based on size and recognition level of the show. For example, the North American International Livestock Exposition, held in Louisville, KY, annually has over 30,000 livestock exhibit entries and hires approximately 60 judges to evaluate the entries.

Prospective students who would be attracted to this certificate would be introduced to the topics through the 100- and 200-level courses included as part of the certificate, which are required courses for many agricultural majors. Those that have strong interest in the topic would pursue the elective courses to strengthen and hone their expertise and skills in evaluation.

**5. Who is the intended audience for the certificate program (including but not limited to the majors/degree programs from which students are expected)?**

The University anticipates most students pursuing the certificate will be in the College of Agriculture, Food and Environmental Sciences; however, there may be interest from students in other colleges. The added value of this certificate will appeal to Animal Science, Agricultural Business, Dairy Production, and Agricultural Education, Communication and Leadership majors, as well as students in other majors that have an interest in livestock evaluation.

**6. Certificate Design**

**A. Is the certificate designed as a stand-alone education credential option for students not seeking additional credentials (i.e., a bachelor’s or master’s degree)? If so, what areas of high workforce demand or specialized body of knowledge will be addressed through this certificate?**

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<sup>2</sup> Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook*, Agricultural and Food Scientists, at <https://www.bls.gov/ooh/life-physical-and-social-science/agricultural-and-food-scientists.htm> (visited January 02, 2021).

No, this is not intended as a stand-alone credential.

**B. Is the certificate a value added credential that supplements a student’s major field of study? If so, list the majors/programs from which students would most benefit from adding the certificate.**

The Livestock and Animal Products Evaluation Certificate is a value-added credential. Students in Animal Science, Agricultural Business, Dairy Production, and Agricultural Education, Communication and Leadership majors would benefit the most from this credential.

**C. Is the certificate a stackable credential with credits that apply to a higher level credential (i.e., associate, bachelor’s, or master’s degree)? If so, indicate the program(s) to which the certificate stacks and the number of credits from the certificate that can be applied to the program.**

Yes. Coursework from the certificate may be applied towards a student’s program requirements and to the certificate.

**7. List the courses required for completion of the certificate in the table below (if any new courses are proposed for the certificate, please attach the new course requests to this form).**

Prefix	Number	Course Title	Prerequisites for Course	Credit Hours	New (yes, no)
AS	101-101L	Introduction to Animal Science & Lab	-	3, 1	No
AS	200	Introduction to Meat Judging	AS 101-101L	1	No
AS	201	Introduction to Livestock Judging	AS 101-101L	1	No
AS	285-285L	Livestock Evaluation and Marketing & Lab	AS 101-101L	3, 0	No
AS	322	Advanced Livestock Evaluation	AS 201 & AS 285	1	No
AS	400	Judging Team (Section 1, 2 or 3)	-	1	No
Choose a minimum of <u>1</u> credit from the following:					
AS	241-241L	Introduction to Meat Science & Lab	-	3, 0	No
DS	202	Dairy Products Judging	-	1	No
DS	311	Dairy Cattle Judging	-	2	No
AS	400	Judging Team (Section 1, 2 or 3; cannot use same section as for required credit)	-	1	No
Subtotal				12-14	

AS 241-241L Introduction to Meat Science & Lab (3 cr.) is a major requirement for the Animal Science major and Agricultural Education Specialization. DS 311 Dairy Cattle Judging (2 cr.) is a major requirement for the Dairy Production major.

**8. Student Outcome and Demonstration of Individual Achievement.**

*Board Policy 2:23 requires certificate programs to “have specifically defined student learning outcomes.*

**A. What specific knowledge and competencies, including technology competencies, will all students demonstrate before graduation? The knowledge and competencies should be specific to the program and not routinely expected of all university graduates.**

Students in the Livestock and Meat Animal Products Evaluation Certificate will develop:

- Understanding of United States Department of Agriculture grading standards for relevant commodities.
- Expertise in visual evaluation of livestock and animal products.
- Expertise in evaluation of genetic and economic data, such as livestock Expected Progeny Differences (EPDs) and market value of commodities.
- Advanced decision-making skills involving combinations of livestock genetic and performance data, visual evaluation of livestock, livestock and animal products economic data and visual evaluation of animal products.

**B. Complete the table below to list specific learning outcomes – knowledge and competencies – for courses in the proposed program in each row.**

Individual Student Outcome	Program Courses that Address the Outcomes								
	AS 101-101L*	AS 200*	AS 201*	AS 285-285L*	AS 322*	AS 400*	AS 241	DS 202	DS 311
Understanding of USDA grading standards for relevant commodities.	X	X		X			X	X	
Expertise in visual evaluation of livestock and animal products.		X	X	X	X	X		X	X
Expertise in evaluation of genetic and economic data, such as livestock Expected Progeny Differences (EPDs) and market value of commodities.		X	X	X	X	X	X		X
Advanced decision-making skills involving combinations of livestock genetic and performance data, visual evaluation of livestock, livestock and animal products economic data and visual evaluation of animal products.		X	X		X	X		X	X

**9. Delivery Location.**

*Note: The accreditation requirements of the Higher Learning Commission (HLC) require Board approval for a university to offer programs off-campus and through distance delivery.*

**A. Complete the following charts to indicate if the university seeks authorization to deliver the entire program on campus, at any off campus location (e.g., USD Community College for Sioux Falls, Black Hills State University-Rapid City, Capital City Campus, etc.) or deliver the entire program through distance technology (e.g., as an on-line program)?**

	Yes/No	Intended Start Date
<b>On campus</b>	Yes	2021-22 Academic Year

	Yes/No	If Yes, list location(s)	Intended Start Date
<b>Off campus</b>	No		

	Yes/No	If Yes, identify delivery methods <i>Delivery methods are defined in <a href="#">AAC Guideline 5.5</a>.</i>	Intended Start Date
<b>Distance Delivery (online/other distance delivery methods)</b>	No		
<b>Does another BOR institution already have authorization to offer the program online?</b>	No	<b>If yes, identify institutions:</b>	

**B. Complete the following chart to indicate if the university seeks authorization to deliver more than 50% but less than 100% of the certificate through distance learning (e.g., as an on-line program)? This question responds to HLC definitions for distance delivery.**

	Yes/No	If Yes, identify delivery methods	Intended Start Date
<b>Distance Delivery (online/other distance delivery methods)</b>	No		