



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

Substantive Program Modification Form

| | |
|--------------------------------|---|
| UNIVERSITY: | SDSU |
| CURRENT PROGRAM TITLE: | Biological Sciences (Ph.D.) – Dairy Science Specialization |
| CIP CODE: | 26.0101 – Biological Sciences Major 01.0905 – Dairy Science Specialization |
| UNIVERSITY DEPARTMENT: | Grad Study – Dairy & Food Science |
| BANNER DEPARTMENT CODE: | SGDS |
| UNIVERSITY DIVISION: | Graduate School |
| BANNER DIVISION CODE: | 3G |

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.

Dennis D. Hedge

Vice President of Academic Affairs or
President of the University

9/22/2020

Date

1. This modification addresses a change in:

- | | |
|--|--|
| <input checked="" type="checkbox"/> Total credits required within the discipline | <input type="checkbox"/> Total credits of supportive course work |
| <input checked="" type="checkbox"/> Total credits of elective course work | <input type="checkbox"/> Total credits required for program |
| <input type="checkbox"/> Program name | <input type="checkbox"/> Existing specialization |
| <input type="checkbox"/> CIP Code | <input type="checkbox"/> Other (explain below) |

2. Effective date of change: 2021-2022 Academic Year

3. Program Degree Level: Associate Bachelor's Master's Doctoral

4. Category: Certificate Specialization Minor Major

5. If a name change is proposed, the change will occur:

- On the effective date for all students
- On the effective date for students new to the program (enrolled students will graduate from existing program)

Proposed new name:

6. Primary Aspects of the Modification:

Existing Curriculum

Proposed Curriculum (**Highlight Changes**)

| Pref | Num | Title | Cr Hrs | Pref | Num | Title | Cr Hrs |
|------|------------|--------------|--------|--|------|--|--------|
| | | | | DS | 731 | Laboratory Techniques in Dairy Science | 3 |
| XXX | 790 or 890 | Seminar | 1 | DS | 790 | Seminar | 2 |
| | | | | DS | 796 | Field Experience | 1 |
| XXX | 898D | Dissertation | 30-40 | DS | 898D | Dissertation | 30-40 |
| | | | | Select at least two courses from the following list of DS Courses. | | | 6-9 |

| Existing Curriculum | | | | Proposed Curriculum (Highlight Changes) | | | |
|---|-----|---|--------------|---|-------|---|--------------|
| Pref | Num | Title | Cr Hrs | Pref | Num | Title | Cr Hrs |
| | | | | DS | 500/L | Dairy Chemistry and Analysis and Lab | 5 |
| | | | | DS | 513/L | Physiology of Lactation and Lab | 4 |
| | | | | DS | 542 | Dairy Product and Process Development | 3 |
| | | | | DS | 580/L | Dairy Farm Operations I and Lab | 4 |
| | | | | DS | 581/L | Dairy Farm Operations II and Lab | 4 |
| | | | | DS | 711 | Ruminology | 3 |
| | | | | DS | 722 | Advanced Dairy and Food Microbiology | 3 |
| | | | | | | | |
| | | | | | | | |
| GSR | 601 | Research Regulations Compliance | 1 | GSR | 601 | Research Regulations Compliance | 1 |
| | | STAT course 500-level or higher | 3 | | | STAT course 500-level or higher | 3 |
| | | Electives as needed to reach 60 or 90 credits | 15-55 | | | Electives as needed to reach 60 or 90 credits | 11-34 |
| Total number of hours required for degree | | | 60-90 | Total number of hours required for degree | | | 60-90 |

7. Explanation of the Change:

These changes more clearly outline the available coursework within the department and allow the program to more closely align with the Student Learning Outcomes. This also focuses and immerses the student more fully within the department and strengthens the overall position of the department to be able to validate baseline skill levels and competencies expected of a student specializing in Dairy Science while maintaining a level of flexibility for the student and their committee to design an appropriate plan-of-study.

DS 796 Field Experience is a new course with sections specific to Dairy Production and Dairy Manufacturing designed to expose the student to basic operational competencies they are likely to encounter in any dairy setting outside of a research laboratory. This will allow the student to work to improve their soft skills and ability to interact with other industry representatives.