



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

**New Course Request**

**SDSU** **College of Agriculture, Food and Environmental Sciences**  
**Institution** **/Natural Resource Management**  
Dennis D. Hedge **Division/Department** **4/16/2025**  
**Institutional Approval Signature** **Date**

**Section 1. Course Title and Description**

Prefix & No.	Course Title	Credits
NRM 783	Ecological Modeling	3

**Course Description**

Students will gain a better understanding of frequentist statistical methods for answering ecological questions in the R computing environment. This course covers the basics of data wrangling, visualization, and generating and testing statistical hypotheses using basic linear, generalized linear, and mixed models as well as their interpretation and standard reporting.

**Pre-requisites or Co-requisites**

Prefix & No.	Course Title	Pre-Req/Co-Req?
STAT 541 OR NRM 582	Statistical Methods II Natural Resource Management Biometry	Pre-req
STAT 515	R Programming	Pre-req

**Registration Restrictions**

None

**Section 2. Review of Course**

**2.1. Will this be a unique or common course?**

**Unique Course**

Prefix & No.	Course Title	Credits
NRM 582	Natural Resource Management Biometry	3
MATH 735	Mathematical Modeling	3

Provide explanation of differences between proposed course and existing system catalog courses below:

NRM 582 teaches the fundamentals of data analysis in natural resources. This new course will pick-up where NRM 582 leaves off with more advanced techniques required by employers today. MATH 735 covers deterministic and stochastic models in a variety of fields, but its focus is not statistical modeling as will be the case in this course.

**Section 3. Other Course Information**

**3.1. Are there instructional staffing impacts?**

No. Schedule Management, explain below: Workload is available to offer this course. NRM 783 will be offered in the spring semester of even years. This course has previously been offered as NRM 792 Topics. This request assigns the course a permanent course title and number.

**3.2. Existing program(s) in which course will be offered:** Biological Sciences (M.S. and Ph.D.) – Natural Resource Management Specialization; Wildlife and Fisheries Sciences (M.S.) – Wildlife Sciences and Fisheries Sciences Specializations; Wildlife and Fisheries Sciences (Ph.D.)

- 3.3. Proposed instructional method by university (as defined by [AAC Guideline 2.4.3.A](#)): R - Lecture
- 3.4. Proposed delivery method by university (as defined by [AAC Guideline 2.4.3.B](#) and [2.4.3.B\(A-1\)](#)): 001 - Face to Face
- 3.5. Term change will be effective: Fall 2025
- 3.6. Can students repeat the course for additional credit?  Yes, total credit limit:  No
- 3.7. Will grade for this course be limited to S/U (pass/fail)?  Yes  No
- 3.8. Will section enrollment be capped?  Yes, max per section:  No
- 3.9. Will this course equate (i.e., be considered the same course for degree completion) with any other unique or common courses in the common course system database in Colleague and the Course Inventory Report?  Yes  No
- 3.10. Is this prefix approved for your university?  Yes  No

**Section 4. Department and Course Codes (Completed by University Academic Affairs)**

- 4.1. University Department: Natural Resource Management
- 4.2. Banner Department Code: SNAR
- 4.3. Proposed CIP Code: 26.1101

Is this a new CIP code for the university?  Yes  No

**NEW COURSE REQUEST**  
**Supporting Justification for On-Campus Review**

A. Joshua Leffler	A. Joshua Leffler	1/23/2025
<b>Request Originator</b>	<b>Signature</b>	<b>Date</b>
Michele R. Dudash	Michele R. Dudash	1/24/2025
<b>Department Chair</b>	<b>Signature</b>	<b>Date</b>
James Connors	James Connors	3/19/2025
<b>School/College Dean</b>	<b>Signature</b>	<b>Date</b>

1. Provide specific reasons for the proposal of this course and explain how the changes enhance the curriculum.  
 Ecological studies require advanced statistical techniques that are not formally covered in other courses but are essential for many students in MS and PhD programs in Natural Resource Management. This course is being proposed to enhance the efficiency of training within the program and to address student requests for additional quantitative ecology training, which is crucial for careers in ecology and natural resource management. The course was offered as NRM 792 Topics in spring 2024, and this request seeks to assign it a permanent course title and number.
2. Note whether this course is:  Required  Elective
3. In addition to the major/program in which this course is offered, what other majors/programs will be affected by this course?  
 Animal Science (M.S. and Ph.D.) students may choose to take this course as an elective.
4. If this will be a dual listed course, indicate how the distinction between the two levels will be made.  
 N/A
5. Desired section size 15
6. Provide qualifications of faculty who will teach this course. List name(s), rank(s), and degree(s).  
 Amanda Cheeseman, Assistant Professor, Ph.D.
7. Note whether adequate facilities are available and list any special equipment needed for the course.  
 Facilities are adequate.
8. Note whether adequate library and media support are available for the course.  
 Adequate library and media support are available.
9. Will the new course duplicate courses currently being offered on this campus?  Yes  No
10. If this course may be offered for variable credit, explain how the amount of credit at each offering is to be determined.

N/A