



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

**Revised Course Request: Unique Course
(Substantive Modification)**

SDSU Institution	Gemechis Djira Form Initiator Jerome J Lohr College of Engineering / Mathematics and Statistics	Suzette Burckhard Dean's Approval Signature	3/12/2025 Date
SDSU Institution	Division/Department	Dennis D. Hedge Institutional Approval Signature	4/16/2025 Date

Section 1. Existing Course Title and Description

Prefix & No.	Course Title	Credits
STAT 685	Statistical Inference II	3

Course Description

A theoretical study of the foundations of statistics, including most powerful tests, maximum likelihood tests, complete and sufficient statistics, etc.

Section 2. Modification(s) Requested

2.1. This modification will include:

A change in description/subject matter content (enter revised description below).

The course will cover fundamental topics in statistical inference. Topics will include parametric and non-parametric models and estimation, Bootstrap methods, maximum likelihood estimation, method of moments estimation, confidence intervals, and hypothesis testing.

Effective term of the change: Fall 2025

2.2. Add justification for all changes noted above:

The existing description is very brief and fails to capture the scope and depth of the content being taught in the course.

Section 3. Other Course Information

3.1. 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 database? Yes No

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

<input type="checkbox"/> Change in University Department	<u>Current</u> Mathematics and Statistics	to	<u>New</u> No change
<input type="checkbox"/> Change in Banner Department Code	SMAS	to	No change
<input type="checkbox"/> Change in <u>CIP Code</u>	27.0502	to	No change