



**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 686	Regression Analysis I	3

Course Description

Methodology of regression analysis, including matrix formulation, inferences on parameters, multiple regression, outlier detection, diagnostics, and multicollinearity.

Section 2. Modification(s) Requested

2.1. This modification will include:

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

Covers linear regression theory using matrix formulations, inferences on parameters, BLUE properties, general linear hypothesis, and simultaneous inferences. The course also covers variables selection, model validation, diagnostic techniques, and remedial measures in multiple linear regression models.

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)

	<u>Current</u>		<u>New</u>
<input type="checkbox"/> Change in University Department	Mathematics and Statistics	to	No change
<input type="checkbox"/> Change in Banner Department Code	SMAS	to	No change
<input type="checkbox"/> Change in <u>CIP Code</u>	27.0501	to	No change