



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

**Substantive Program Modification Form**

<b>UNIVERSITY:</b>	<b>SDSU</b>
<b>CURRENT PROGRAM DEGREE:</b>	<b>A.S., B.S., M.S., Minor, Certificate</b>
<b>CURRENT PROGRAM MAJOR/MINOR:</b>	<b>Data Science</b>
<b>CURRENT SPECIALIZATION:</b>	<b>N/A</b>
<b>CIP CODE:</b>	<b>27.0501</b>
<b>UNIVERSITY DEPARTMENT:</b>	<b>Mathematics &amp; Statistics</b>
<b>BANNER DEPARTMENT CODE:</b>	<b>SMAS</b>
<b>UNIVERSITY COLLEGE:</b>	<b>Jerome J. Lohr College of Engineering</b>
<b>BANNER COLLEGE CODE:</b>	<b>3E</b>

**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

1/25/2024

Vice President of Academic Affairs or  
President of the University

Date

**1. This modification addresses a change in:**

- |                                                                                                                                                  |                                                                  |
|--------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|
| <input type="checkbox"/> Total credits required within the discipline                                                                            | <input type="checkbox"/> Total credits of supportive course work |
| <input 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 checked="" type="checkbox"/> CIP Code                                                                                                     | <input type="checkbox"/> Other (explain below)                   |
| <input type="checkbox"/> Modification requiring Board of Regents approval<br><i>Must have prior approval from Executive Director or designee</i> |                                                                  |

**2. Effective date of change: 2024-2025 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. Is the program being modified associated with a current articulation agreement?**

Yes  No

a. If yes, will the articulation agreement need to be updated with the partner

institution following the approve of the program change? Please explain: N/A

**7. Primary Aspects of the Modification:**

CIP Code:

*Current CIP Code:* 27.0501; Title: Statistics, General.

Definition: A general program that focuses on the relationships between groups of measurements, and similarities and differences, using probability theory and techniques derived from it. Includes instruction in the principles in probability theory, binomial distribution, regression analysis, standard deviation, stochastic processes, Monte Carlo method, Bayesian statistics, non-parametric statistics, sampling theory, and statistical techniques.

*Proposed CIP Code:* 30.7001; Title: Data Science, General.

Definition: A program that focuses on the analysis of large scale data sources from the interdisciplinary perspectives of applied statistics, computer science, data storage, data representation, data modeling, mathematics, and statistics. Includes instruction in computer algorithms, computer programming, data management, data mining, information policy, information retrieval, mathematical modeling, quantitative analysis, statistics, trend spotting, and visual analytics.

**8. Explanation of the Change:**

The Department of Mathematics and Statistics requests to update the Data Science program CIP code. The code would change to 30.7001 (Data Science, General). This change is requested to update the CIP Code to accurately reflect the nature of the program.

Program Code	Program Title	Degree Type	Major Code	Major Desc	Current Major CIP Code	Current Major CIP Desc	Proposed Major CIP Code	Proposed Major CIP Desc
SAS.DSC	Data Science (AS)	AS	SDSC	Data Science	27.0501	Statistics, General	30.7001	Data Science, General
SBS.DSC	SDSU Data Science (BS)	BS	SDSC	Data Science	27.0501	Statistics, General	30.7001	Data Science, General
SCERTG.DSC	SDSU Data Science (CG)	Graduate Certificate	SDSC	Data Science	27.0501	Statistics, General	30.7001	Data Science, General
SMS.DSC	SDSU Data Science (MS)	MS	SDSC	Data Science	27.0501	Statistics, General	30.7001	Data Science, General
SMS.DSC.AP	SDSU Data Science Accel (MS)	MS	SDSC	Data Science	27.0501	Statistics, General	30.7001	Data Science, General
	Data Science Minor	Minor	SDSC	Data Science	27.0501	Statistics, General	30.7001	Data Science, General