



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

Substantive Program Modification Form

UNIVERSITY:	SDSU
CURRENT PROGRAM TITLE:	Engineering (M.Eng.) [S.MENG.ENGR]
CIP CODE:	14.0101
UNIVERSITY DEPARTMENT:	Construction & Operations Management (SGRGT)
UNIVERSITY DIVISION:	Jerome J. Lohr College of Engineering (SGRAD)

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

 3/26/2018
 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 type="checkbox"/> CIP Code | <input checked="" type="checkbox"/> Other: Accelerated Program Option |

2. Effective date of change: 2018-2019 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: _____

Reminder: Name changes may require updating related articulation agreements, site approvals, etc.

6. Primary Aspects of the Modification:

<i>Existing Curriculum</i>				<i>Proposed Curriculum (highlight changes)</i>			
Pref.	Num.	Title	Cr. Hrs.	Pref.	Num.	Title	Cr. Hrs.
		The Master of Engineering program does not have an accelerated option.				Program requirements for accelerated Master of Engineering (M.Eng) at SDSU:	
						1. Up to twelve credits of approved courses may be double-counted.	
						2. Students must follow SDSU Policy 2:22 Use of	

Existing Curriculum

Proposed Curriculum (highlight changes)

		<u>Graduate Credit for Undergraduate Degree Requirements.</u>	
Total number of hours required for major	30	Total number of hours required for major	30
Total number of hours required for degree Option D	30	Total number of hours required for degree Option D	30

7. Explanation of the Change:

The Jerome J. Lohr College of Engineering and Department of Construction & Operations Management seek to add an accelerated pathway for undergraduate students to obtain a Master of Engineering degree at SDSU. Students would be able to pursue the accelerated coursework under Option D (Coursework Only) plans of study. In 2016 when the Master of Engineering was approved, the College planned on a matriculating student population interested in staying up to one additional year to complete the professional M.Eng. degree. This change will accommodate these students. Students admitted into the accelerated Master’s program will be allowed to complete up to twelve credit hours of approved 500- or 600-level coursework while still completing their undergraduate degree. Potential SDSU courses may include, however not be limited to:

- ABE 434-434L/534-534L - Natural Resources Engineering and Lab
- ABE 444-444L/544-544L - Unit Operations of Biological Materials Processing and Lab
- ABE 543 - Fundamentals of Bioprocessing
- ABE 551 - Fundamentals of Conversion
- ABE 553 - Biochemical Engineering for Renewable Resources
- ABE 555-555L - Principles of Biological Separation Processing and Lab
- ABE 590 - Sustainability Seminar
- ABE 592 - Topics
- ABE 632 - Environmental and Ecological Risk Assessment
- ABE 662 - Life Cycle Assessment
- AST 463-563 - Agricultural Waste Management
- CEE 411-411L/511-511L - Bituminous Materials and Lab
- CEE 422-422L/522-522L - Environmental Engineering Instrumentation and Lab
- CEE 423-523 - Municipal Water Distribution and Collection System Design
- CEE 424-524 - Industrial Waste Treatment
- CEE 434-534 - Hydrology
- CEE 435-535 - Water Resources Engineering
- CEE 443-543 - Matrix Analysis of Structures
- CEE 446-546 - Advanced Geotechnical Engineering
- CEE 447-547 - Foundation Engineering (COM)
- CEE 452-552 - Prestressed Concrete
- CEE 458-558 - Design of Timber Structures
- CEE 467-567 - Transportation Engineering
- CEE 592 - Topics
- CEE 692 - Topics
- CM 400-500 - Risk Management and Construction Safety
- CM 443-553 - Construction Planning and Scheduling
- CM 460-560 - Sustainable Building Systems Concepts and Analysis
- CM 473-573 - Construction Law and Accounting
- CM 485-485L/585-585L - Site Development and Feasibility Analysis and Lab
- CSC 422/522 - GUI Programming
- CSC 433/533 - Computer Graphics
- CSC 447/547 - Artificial Intelligence
- CSC 474/574 - Computer Networks
- CSC 487/587 - Network Security
- CSC 592 - Topics
- CSC 601 - Accelerated Computer Science Fundamentals
- CSC 630 - Principles of Data Base System Design
- EE 436-436L/536-536L - Photovoltaic Systems Engineering and Lab
- EE 460-460L/560-560L - Sensor and Measurements Laboratory
- EE 462L-562L - Electronic Materials Lab
- EE 591 - Independent Study
- EE 691 - Independent Study
- EE 692 - Topics
- EM 422-522 - Theory of Elasticity
- EM 423-523 - Theory of Plasticity
- EM 624 - Theory of Plates and Shells
- GE 410-510 - Human Factors in Design
- GE 425-525 - Occupational Safety and Health Management
- GE 491-591 - Independent Study
- GE 492-592 - Topics

- GE 569 - Project Management
- GE 603 - Designing the Work Place for Production
- GE 650 - Manufacturing Systems Management
- GE 667 - Decision Theory
- GE 685 - Management and Leadership in Technical Organizations
- GE 690 - Seminar
- GE 691 - Independent Study
- GE 692 - Topics
- GE 696 - Field Experience
- ME 410-510 - Principles of HVAC Engineering
- ME 412-512 - Internal Combustion Engines
- ME 413-513 - Turbomachinery
- ME 414-514 - Air Pollution Control
- ME 416-516 - Renewable Energy Systems
- ME 417-417L/517-517L - Computer-Aided Engineering and Lab
- ME 418-518 - Design of Thermal Systems
- ME 431-531 - Aerodynamics
- ME 433-433L/533-533L - Non-Destructive Testing and Evaluation and Lab
- ME 437-537 - Gas Dynamics I
- ME 438-438L - Machine Design-Case Studies and Lab
- ME 439-439L/539-539L - HVAC System Design and Lab
- ME 440-540 - Computer-Aided Design
- ME 442-542 - Applications of Computational Fluid Dynamics
- ME 461-561 - Analysis and Design of Industrial Systems
- ME 590 - Seminar
- ME 592 - Topics
- ME 691 - Independent Study
- ME 692 - Topics
- OM 460-560 - Manufacturing Cost Analysis
- OM 462-562 - Quality Management
- OM 463-563 - Supply Chain Management
- OM 569 - Project Management
- OM 650 - Manufacturing Systems Management
- OM 660 - Operations Management
- OM 665 - Quality Control Applications
- OM 670 - Research Methods in Management
- OM 690 - Seminar
- PHYS 421-521 - Electromagnetism (COM)
- PHYS 433-533 - Nuclear and Elementary Particle Physics (COM)
- PHYS 439-539 - Solid State Physics (COM)
- PHYS 451-551 - Classical Mechanics (COM)
- PHYS 471-571 - Quantum Mechanics (COM)
- PHYS 481-581 - Mathematical Physics (COM)
- PHYS 590 - Seminar
- PHYS 591 - Independent Study
- PHYS 592 - Topics
- PRAG 410-410L/510-510L - Soil Geography and Land Use Interpretation and Lab
- PRAG 423-523 - Soil Fertility and Plant Nutrient Management
- PRAG 424-524 - Wheat Production
- PRAG 425-525 - Soybean Production
- PRAG 426-526 - Corn Production
- PRAG 427-527 - Precision Ag Data Mapping
- PRAG 440-440L/540-540L - Crop Management with Precision Farming and Lab

Students must follow policy and procedures outlined in SDSU Policy 2:22 Use of Graduate Credit for Undergraduate Degree Requirements.

Office/Contact: Office of Academic Affairs

Source: SDBOR Policy 2:8; SDBOR Policy 2:10

Link: <https://www.sdbor.edu/policy/documents/2-8.pdf>;

<https://www.sdbor.edu/policy/documents/2-10.pdf>

Associated Forms: Senior Permit; [Request to Use Graduate Credit to Fulfill Undergraduate Degree Requirement](#)

SOUTH DAKOTA STATE UNIVERSITY
Policy and Procedure Manual

SUBJECT: Use of Graduate Credit for Undergraduate Degree Requirements

NUMBER: 2:22

1. Purpose

This policy designates standards concerning the use of graduate credit to fulfill undergraduate degree requirements as allowed by SDBOR Policy 2:8.

2. Definitions

- a. Undergraduate Courses: University courses numbered 100 – 499.
- b. Graduate Courses: University courses numbered 500 – 899.
- c. Class standing is determined by earned semester credits:
 - i. Junior standing: 60-89.99 earned credits.
 - ii. Senior standing: 90+ earned credits.

3. Policy

- a. Undergraduate students may enroll in a limited number of graduate courses only when the following conditions are met:
 - i. The student has completed a minimum of 90 undergraduate credit hours toward their degree requirements with a cumulative grade point average of 3.0 or junior/senior grade point average of 3.2.
 - ii. The student is registered for courses numbered 500-699 only. Courses in the 700 and 800 series are not open to undergraduate students.
 - iii. The student has received approval from the Dean of the Graduate School to enroll in the graduate level course(s). For courses numbered 600-699, the Dean of the Graduate School is hereby designated the V.P. for Academic Affairs designee.
 - iv. The student has successfully completed any required prerequisites.

- b. Permission to take graduate courses to fulfill undergraduate degree requirements does not constitute admission to the Graduate School.
- c. A maximum of twelve (12) graduate level credits may apply to the undergraduate degree as major requirements or electives with approval from the student's academic advisor, department head, and college dean. These graduate credits would be approved as course substitutions to meet selected and identified undergraduate degree requirements.
- d. Graduate level credits may not be used to meet general education requirements.
- e. Graduate courses completed by undergraduate students will appear on the graduate transcript.
- f. Graduate courses that are approved to meet undergraduate degree requirements are transferred to the undergraduate transcript using the same graduate course number and title upon successful completion of the course.
- g. Graduate course grades are included in the undergraduate grade point average.
- h. Students will pay tuition at the level of the registered course(s).

4. Procedures

- a. Students who wish to take graduate courses to meet undergraduate requirements must complete the following steps:
 - i. The student completes the *Senior Permit* form and submits it to the Graduate School for review. If approved by the Graduate School Dean, the undergraduate student will be allowed to enroll in graduate courses in accordance with this policy.
 - ii. In order to use graduate courses to meet undergraduate degree requirements, the student must complete the *Request to Use Graduate Credit to Fulfill Undergraduate Degree Requirements* form. The form requires approval from the student's academic advisor, department head, and college dean prior to enrollment. The form is submitted to the Records & Registration Office once all signatures are secured.
 - iii. Upon successful completion of the course(s), the Records & Registration Office will complete the transfer process identified in Section 3.f. of this policy.

5. Responsible Administrator

The Provost and Executive Vice President for Academic Affairs, successor, or designee, is responsible for the annual and ad hoc review of this policy and its procedures. The University President is responsible for approval of this policy.

SOURCE: Approved by President on 03/02/2016.