

## SOUTH DAKOTA BOARD OF REGENTS ACADEMIC AFFAIRS FORMS

## Substantive Program Modification Form

UNIVERSITY:	SDSU
CURRENT PROGRAM DEGREE:	B.S.
CURRENT PROGRAM MAJOR/MINOR:	Concrete Industry Management
CURRENT SPECIALIZATION	N/A
CIP CODE:	15.1501
UNIVERSITY DEPARTMENT:	<b>Construction &amp; Operations Management</b>
<b>BANNER DEPARTMENT CODE:</b>	SCOM
UNIVERSITY COLLEGE:	Jerome J Lohr College of Engineering
<b>BANNER COLLEGE CODE:</b>	3E

## **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 of President of the University	<u>4/3/2023</u> Date	
1. Tł	nis modification addresses a change in:		
$\boxtimes$	Total credits required within the discipline	$\boxtimes$	Total credits of supportive course work
$\boxtimes$	Total credits of elective course work		Total credits required for program
	Program name		Existing specialization
	CIP Code		Other (explain below)

- Modification requiring Board of Regents approval
   *Must have prior approval from Executive Director or designee*
- 2. Effective date of change: 2023-2024 Academic Year
- **3.** Program Degree Level: Associate □ Bachelor's ⊠ Master's □ Doctoral □
- **4.** Category: Certificate  $\Box$  Specialization  $\Box$  Minor  $\Box$  Major  $\boxtimes$
- 5. If a name change is proposed, the change will occur:

 $\Box$  On the effective date for all students

 $\Box$  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  $\Box$  No  $\boxtimes$ 
  - a. If yes, will the articulation agreement need to be updated with the partner institution following the approve of the program change? Please explain:
- 7. Primary Aspects of the Modification:

Pref.	Num.	Existing Curriculum Title	Cr. Hrs.	Pref.	Num.	Curriculum (highlight changes) Title	Cr. H
System General Education Requirements			31	System	General Edu	cation Requirements	<mark>33</mark>
System	ystem General Education Requirements - Electives		12	System General Education Requirements - Electives			
				SGR 1	<b>Elective</b>	Written Communication	<mark>3</mark>
				<mark>SGR 1</mark>	<b>Elective</b>	Written Communication	<mark>3</mark>
SGR 2	Elective	Oral Communications	3	SGR 2	Elective	Oral Communications	3
SGR 3	Elective	Social Sciences/Diversity	3	SGR 3	Elective	Social Sciences/Diversity	3
SGR 4	Elective	Art & Humanities/Diversity	3	<mark>SGR-4</mark>	<mark>Elective</mark>	Art & Humanitics/Diversity	<mark>3</mark>
SGR 4	Elective	Arts & Humanities/Diversity	3	<mark>SGR-4</mark>	<mark>Elective</mark>	Arts & Humanitics/Diversity	<mark>3</mark>
				<mark>SGR 6</mark>	Elective	Natural Sciences	<mark>3</mark>
<u>a</u> 4			10	C (			10
		ation Requirements – Required	19	System ENGL		Ication Requirements – Required	18 2
ENGL	101 201	Composition 1 (SGR 1)	3	ENGL ENGL	<mark>101</mark> 201	Composition 1 (SGR 1) Composition II (SGR 1)	<mark>3</mark>
ENGL OR	201	Composition II (SGR 1)	3	<del>ence</del> <del>OR</del>	<del>201</del>	<del>composition if (SGK 1)</del>	<mark>3</mark>
ENGL	277	Technical Writing in Engineering (SGR 1)		engl	<mark>277</mark>	Technical Writing in Engineering (SGR 1)	
ECON	201	Principles of Microeconomics	3	ECON	201	Principles of Microeconomics	3
2001	201	(SGR 3)	5		201	(SGR 3)	5
				<b>SPAN</b>	101	Introductory Spanish I (SGR 4)	<mark>4</mark>
			1	SPAN	102	Introductory Spanish II (SGR 4)	4 
MATH	114	College Algebra (SGR 5)	3	MATH	114	College Algebra (SGR 5)	3
CHEM	106	Survey of Chemistry (SGR 6)	3	CHEM	106	Survey of Chemistry (SGR 6)	3
CHEM	106L	Survey of Chemistry Lab (SGR 6)	1	CHEM	100 106L	Survey of Chemistry Lab (SGR 6)	1
PS	243	Principles of Geology (SGR 6)	3	29 29	243	Principles of Geology (SGR 6)	<mark>3</mark>
			_				
Major l	Major Requirements			Major I	Requirement	s	<mark>56</mark>
CIM	101	Introduction to Concrete Industry	2	CIM	101	Introduction to Concrete Industry	2
		Management				Management	
				CIM	<mark>120</mark>	Introduction to Industrial Safety	<mark>3</mark>
CIM	125	Plans and Specifications	1	<b>CIM</b>	<mark>125</mark>	Plans and Specifications	<mark>2</mark>
CIM	210	Fundamentals of Concrete:	3	CIM	210	Fundamentals of Concrete:	3
		Properties and Testing				Properties and Testing	
CIM	210L	Fundamentals of Concrete: Properties and Testing Lab	1	CIM	210L	Fundamentals of Concrete: Properties and Testing Lab	1
CIM	216	Concrete Methods and Materials	3	CIM	<mark>216</mark>	Concrete Methods and Materials	<mark>3</mark>
CIM	230	Concrete Const Systems	3	CIM	230	Concrete Const Systems	3
CIM	310	Management of Concrete Facilities	3	CIM	310	Management of Concrete Facilities	3
CIM	350	Concrete Applications and Est.	3	CIM	350	Concrete Applications and Est.	3
CIM	370	Concrete Production and Strategy	3	CIM	<mark>370</mark>	Concrete Production and Strategy	<mark>2</mark>
CIM	440	Advanced Concrete Materials	3	CIM	440	Advanced Concrete Materials	3
CIM	440L	Advanced Concrete Materials Lab	1	CIM	440L	Advanced Concrete Materials Lab	1
CIM	450	Concrete Restoration & Repair	3	CIM .	<mark>450</mark>	Concrete Restoration & Repair	<mark>≩</mark>
CIM	471	Capstone	3	CIM	471	Capstone	3
				CIM	<mark>480</mark>	Concrete Industry Sales and Marketing	<mark>3</mark>
CIM	494	Internship	3	CIM	494	Internship	3
СМ	130	Management Tools and Analysis	3	СМ	130	Management Tools and Analysis	3
				<mark>CM</mark>	<mark>232</mark>	Cost Estimating	<mark>3</mark>
СМ	400	Risk Management and	3	СМ	400	Risk Management and	3
OR		Construction Safety		OR		Construction Safety	
GE	425	Occupational Safety and Health Management		GE	425	Occupational Safety and Health Management	
СМ	460	Sustainable Building Systems	3	СМ	460	Sustainable Building Systems	3
СМ	473	Construction Law and Contracts	3	СМ	473	Construction Law and Contracts	3
-				<b>MNET</b>	<mark>231</mark>	Manufacturing Processes I	2
			1	MNET	231L	Manufacturing Processes I Lab	

Pref.	Num.	Title	Cr. Hrs.	Pref.	Num.	Title	Cr. Hr
MNET	367	Production Strategy	3	MNET	367	Production Strategy	3
MNET	367L	Production Strategy Lab	0	MNET	367L	Production Strategy Lab	0
Elective	CM,OM, GE	Technical Elective	8	Elective	CM.OM. CE	Technical Elective	8
	- ,- ,-				- <u>-</u> , - <u>, -</u>		
Supporting Coursework			31	Support	ing Coursewor	rk	31
GE	101	Intro to Engineering	1	GE	101	Intro to Engineering	1
GE	469	Project Management	3	GE	469	Project Management	3
OM	425	Production and Operations	3	ОМ	425	Production and Operations	3
		Management				Management	
OM	463	Supply Chain Management	3	ОМ	463	Supply Chain Management	3
STAT	281	Introduction to Statistics	3	STAT	281	Introduction to Statistics	3
		Select one of the following minors:	18			Select one of the following minors:	18
		Management Minor				Management Minor	
ACCT	210	Principles of Accounting I	3	ACCT	210	Principles of Accounting I	3
ACCT	211	Principles of Accounting II	3	ACCT	211	Principles of Accounting II	3
BADM/	360	Organization and Management	3	BADM/	360	Organization and Management	3
MGMT				MGMT		6	
CSC/	325	Management Information Systems	3	CSC/	325	Management Information Systems	3
MGMT				MGMT			
FIN	310	Business Finance	3	FIN	310	Business Finance	3
HRM	460	Human Resource Management	3	HRM	460	Human Resource Management	3
		Marketing Minor				Marketing Minor	
ADV	314	Digital Promotions	3	ADV	314	Digital Promotions	3
ADV	370	Advertising Principles	3	ADV	370	Advertising Principles	3
MKTG	370	Marketing	3	MKTG	370	Marketing	3
MKTG	474	Personal Selling	3	MKTG	474	Personal Selling	3
MKTG	476	Marketing Research	3	MKTG	476	Marketing Research	3
MGMT	334	Small Business Management	3	MGMT	334	Small Business Management	3
Electives			0	Electives			0
		Summary of Credits C					
System General Education Requirements			31	System General Education Requirements			<mark>33</mark>
	lequirements		58	Major Requirements			<mark>56</mark>
	ing Coursework		31	Supporting Coursework			31
Electives			0	Electives			0
Total number of hours required for major			108		Total nur	nber of hours required for major	<mark>105</mark>
Total number of hours required for degree							120

## 8. Explanation of the Change:

The Department of Construction and Operations Management has reviewed the Concrete Industry Management curriculum. The following changes are requested:

- Added SPAN 101 Introductory Spanish I (4 cr.) and SPAN 102 Introductory Spanish II (4 cr.) as the required SGR #4 courses. The construction industry is rapidly becoming an extremely diverse workplace, and it is of vital importance for managers in the industry to be able to converse in Spanish.
- Removed ENGL 101 Composition I (3 cr.), ENGL 201 Composition II (3 cr.), and PS 243 Principles of Geology (3 cr.) as the required SGR #1 and SGR #6 courses. Students will be able to select any SGR #1 or SGR #6 course from the approved course list.
- Increased CM 125 Plans and Specifications from a 1 to 2 credit course. CIM 125 Plans and Specifications is a foundational class in the Concrete Industry Management program, and an additional credit is required to cover the depth and breadth of content. In addition, the course

will now be a prerequisite for CM 232 Cost Estimating. Content covered in the additional time is necessary for students to be adequately prepared for CM 232.

- Removed CIM 216 Concrete Methods and Materials (3 cr.) and added CIM 120 Introduction to Industrial Safety (3 cr.). The content from CIM 216 will be covered elsewhere in the curriculum. It is important for students to become familiar with the industry safety culture at an early point in their careers before field trips and internships. The department will add CIM 120 Introduction to Industrial Safety, in place of CIM 216. This course will focus on concrete batch plant and precast plant safety measures, creating safety training programs, and MSHA new miner training.
- Decreased CIM 370 Concrete Production and Strategy from a 3 to 2 credit course. This is a software-based class, focusing on dispatch and batching software currently used in the industry and the content can be sufficiently covered in 2 credits.
- Replaced CIM 450 Concrete Restoration and Repair (3 cr.) with CIM 480 Concrete Industry Sales and Marketing (3 cr.). At the other four CIM universities, Concrete Restoration and Repair is an elective that may be taken at the student's discretion depending upon their personal interests. In addition, a frequent criticism of students from the other programs is a limited amount of sales and marketing experience. For this reason, it will be more beneficial to include an Industrial Sales and Marketing based on a class taught for the CSU, Chico CIM program. This class will give students the skills needed to market, promote, and sell their product effectively. CIM 450 Concrete Restoration and Repair could be completed as an elective course.
- Added MNET 231-231L Manufacturing Processes I & Lab (3 cr.) and CM 232 Cost Estimating (3 cr.). MNET 231-231L is a prerequisite for MNET 367-367L Production Strategy & Lab. The addition of CM 232 was in response to another frequent criticism of CIM students from other universities. They have indicated there is insufficient experience with estimating. This change has reduced the number of technical electives.