



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

**Substantive Program Modification Form**

<b>UNIVERSITY:</b>	<b>SDSU</b>
<b>CURRENT PROGRAM TITLE:</b>	<b>Conservation Planning and Park Management (B.S.)</b>
<b>CIP CODE:</b>	<b>03.0101</b>
<b>UNIVERSITY DEPARTMENT:</b>	<b>Natural Resource Management</b>
<b>BANNER DEPARTMENT CODE:</b>	<b>SNAR</b>
<b>UNIVERSITY DIVISION:</b>	<b>Agriculture, Food &amp; Environmental Science</b>
<b>BANNER DIVISION CODE:</b>	<b>3F</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

Vice President of Academic Affairs or  
President of the University

3/25/2020

Date

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

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Total credits required within the discipline | <input type="checkbox"/> Total credits of supportive course work |
| <input checked="" 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 type="checkbox"/> Other (explain below)                   |

**2. Effective date of change:** 2020-2021 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. Primary Aspects of the Modification:**

*Existing Curriculum*

*Proposed Curriculum (highlight changes)*

Pref.	Num	Title	Cr.Hrs	Pref.	Num	Title	Cr. Hrs
<b>System General Education Requirements</b>			<b>32</b>	<b>System General Education Requirements</b>			<b>32</b>
ENGL	101	Composition I (SGR #1)	3	ENGL	101	Composition I (SGR #1)	3
ENGL	201	Composition II (SGR #1)	3	ENGL	201	Composition II (SGR #1)	3
SPCM	101	Fundamentals of Speech (SGR #2)	3	SPCM	101	Fundamentals of Speech (SGR #2)	3
ECON	201	Principles of Microeconomics (SGR #3)	3	ECON	201	Principles of Microeconomics (SGR #3)	3
POLS	210	State and Local Government (SGR #3)	3	POLS	210	State and Local Government (SGR #3)	3

Existing Curriculum

Proposed Curriculum (**highlight changes**)

Prof.	Num	Title	Cr.Hrs	Prof.	Num	Title	Cr. Hrs
		Student Choice (SGR #4)	3			Student Choice (SGR #4)	3
		Student Choice (SGR #4)	3			Student Choice (SGR #4)	3
MATH	114	College Algebra (SGR #5)	3	MATH	114	College Algebra (SGR #5)	3
BIOL	151-151L	General Biology I & Lab (SGR #6)	4	BIOL	151-151L	General Biology I & Lab (SGR #6)	4
CHEM	106-106L	Chemistry Survey & Lab (SGR #6)	4	CHEM	106-106L	Chemistry Survey & Lab (SGR #6)	4
<b>College Requirements</b>			<b>0</b>	<b>College Requirements</b>			<b>0</b>
<p>Students seeking the Bachelor of Science degree must complete the System General Education Requirements. In some majors, the student must select a “specialization.” Additional requirements for both Bachelor of Science degrees follow.</p> <ul style="list-style-type: none"> <li>The requirements of one of the College’s majors must be met. Specific requirements are listed under each program of study.</li> <li>25 semester credits must be upper division (300 and above), with the exception that MATH 125 and 225, Calculus II and III, may be counted as five credits toward the total.</li> </ul> <p><b>Bachelor of Science in Agriculture, Food and Environmental Sciences</b></p> <p>Students must complete a minimum of 11 credits from the approved list of Group 1 courses in Agriculture, Food and Environmental Science. Some departments require specific courses from the list, whereas others leave the selection entirely to the student and the advisor.</p> <ul style="list-style-type: none"> <li>ABS 475-475L Integrated Natural Resource Management &amp; Lab (3) (Conservation Planning and Management section) (Major Requirement)</li> <li>NRM 221 Introduction to Conservation Planning and Management (3) (Major Requirement)</li> <li>NRM 282-282L Natural Resource Statistics &amp; Lab (3) (Major Requirement)</li> </ul> <p>NRM 311 Principles of Ecology (3) (Major Requirement)</p>				<p>Students seeking the Bachelor of Science degree must complete the System General Education Requirements. In some majors, the student must select a “specialization.” Additional requirements for both Bachelor of Science degrees follow.</p> <ul style="list-style-type: none"> <li>The requirements of one of the College’s majors must be met. Specific requirements are listed under each program of study.</li> <li>25 semester credits must be upper division (300 and above), with the exception that MATH 125 and 225, Calculus II and III, may be counted as five credits toward the total.</li> </ul> <p><b>Bachelor of Science in Agriculture, Food and Environmental Sciences</b></p> <p>Students must complete a minimum of 11 credits from the approved list of Group 1 courses in Agriculture, Food and Environmental Science. Some departments require specific courses from the list, whereas others leave the selection entirely to the student and the advisor.</p> <ul style="list-style-type: none"> <li>ABS 475-475L Integrated Natural Resource Management &amp; Lab (3) (Conservation Planning and Management section) (Major Requirement)</li> <li>NRM 221 Introduction to Conservation Planning and Management (3) (Major Requirement)</li> <li>NRM 282-282L Natural Resource Statistics &amp; Lab (3) (Major Requirement)</li> <li>NRM 311 Principles of Ecology (3) (Major Requirement)</li> </ul>			
<b>Major Requirements</b>			<b>83</b>	<b>Major Requirements</b>			<b>85</b>
<b>CPPM Core Requirements</b>			<b>62</b>	<b>CPPM Core Requirements</b>			<b>64</b>
ABS	475-475L	Integrated Natural Resource Management & Lab ( <i>Conservation Planning and Management section</i> )	3	ABS	475-475L	Integrated Natural Resource Management & Lab ( <i>Conservation Planning and Management section</i> )	3
GEOG or GEOG	131-131L  132-132L	Physical Geography: Weather and Climate & Lab (4) Physical Geography: Natural Landscapes & Lab (4) ( <i>recommended for PAM specialization</i> )	4	GEOG or GEOG	131-131L  132-132L	Physical Geography: Weather and Climate & Lab (4) Physical Geography: Natural Landscapes & Lab (4) ( <i>recommended for PAM specialization</i> )	4
GEOG	365	Land Use and Planning	3	GEOG	365	Land Use and Planning	3
GEOG	372-372L	Introduction to GIS and Lab	3	GEOG	372-372L	Introduction to GIS and Lab	3
HO or BOT	339-339L  303-303L	Arboriculture and Urban Forestry (3) Forest Ecology and Management & Lab (3)	3	HO or BOT	339-339L  303-303L	Arboriculture and Urban Forestry (3) Forest Ecology and Management & Lab (3)	3
LEAD	435	Organizational Leadership and Team Development	3	<b>LDR</b>	435	Organizational Leadership and Team Development	3
NRM	119	Orientation to Natural Resource Management	3	NRM	119	Orientation to Natural Resource Management	3
NRM	221	Conservation Planning and Management I	3	NRM	221	Conservation Planning and Management I	3
NRM	230	Natural Resource Management Techniques	3	NRM	230	Natural Resource Management Techniques	3

## Existing Curriculum

Proposed Curriculum (*highlight changes*)

Prof.	Num	Title	Cr.Hrs	Prof.	Num	Title	Cr. Hrs
				NRM	276	Scientific Communications	1
NRM	282-282L	Natural Resource Statistics & Lab	3	NRM	282-282L	Natural Resource Statistics & Lab	3
NRM	300	Laws and Policies in Natural Resource Management	3	NRM	300	Laws and Policies in Natural Resource Management	3
NRM	311	Principles of Ecology	3	NRM	311	Principles of Ecology	3
NRM	321	Park Interpretation	3	NRM	321	Park Interpretation	3
PS	210-210L	Turf and Weed Management in Horticulture & Lab	3	PS	210-210L	Turf and Weed Management in Horticulture & Lab	3
PS	213-213L	Soils & Lab	3	PS	213-213L	Soils & Lab	3
RANG	321	Wildland Ecosystems	3	RANG	321	Wildland Ecosystems	3
RANG	374-374L	Habitat Conservation and Management and Lab	3	RANG	374-374L	Habitat Conservation and Management and Lab	4
RECR	140	Introduction to Sport, Recreation, and Park Management	3	RECR	140	Introduction to Sport, Recreation, and Park Management	3
RECR	402	Outdoor Recreation Resource Management	3	RECR	402	Outdoor Recreation Resource Management	3
WL	430	Human Dimensions in Natural Resource Management	3	WL	430	Human Dimensions in Natural Resource Management	3
<b>CPPM Major Electives</b>			<b>21</b>	<b>CPPM Major Electives</b>			<b>21</b>
BIOL	373	Evolution	3	BIOL	373	Evolution	3
BOT	301-301L	Plant Systematics & Lab	3	BOT	301-301L	Plant Systematics & Lab	3
BOT	303-303L	Forest Ecology and Management & Lab	3	BOT	303-303L	Forest Ecology and Management & Lab	3
BOT	405-405L	Grasses and Grasslike Plants & Lab	3	BOT	405-405L	Grasses and Grasslike Plants & Lab	3
BOT	419-419L	Plant Ecology & Lab	3	BOT	419-419L	Plant Ecology & Lab	3
CEE	434	Hydrology	3	CEE	434	Hydrology	3
EES	430-430L	Biological Invasions & Lab	3	EES	430-430L	Biological Invasions & Lab	3
GEOG	473-473L	GIS: Data Creation and Integration & Lab	3	GEOG	473-473L	GIS: Data Creation and Integration & Lab	3
GEOG	474-474L	GIS: Vector and Raster Modeling & Lab	3	GEOG	474-474L	GIS: Vector and Raster Modeling & Lab	3
GEOG	475-475L	GIS Applications & Lab	3	GEOG	475-475L	GIS Applications & Lab	3
GEOG	484-484L	Remote Sensing & Lab	3	GEOG	484-484L	Remote Sensing & Lab	3
HO	339	Arboriculture and Urban Forestry	3	HO	339	Arboriculture and Urban Forestry	3
HRM	460	Human Resource Management	3	HRM	460	Human Resource Management	3
LA	331	Landscape Site Engineering	3	LA	331	Landscape Architecture Site Engineering	3
LA	341	Planning Public Grounds	3	LA	341	Public and Social Place Design	3
LA	352	Planting Design Studio	4	LA	352	Planting and Ecological Design	4
MGMT	360	Organization and Management	3	MGMT	360	Organization and Management	3
MICR	310-310L	Environmental Microbiology & Lab	4	MICR	310-310L	Environmental Microbiology & Lab	4
MICR	421-421L	Soil Microbiology & Lab	3	MICR	421-421L	Soil Microbiology & Lab	3
NRM	200-200L	Animal Diversity & Lab	3	NRM	200-200L	Animal Diversity & Lab	3
NRM	450-450L	Freshwater Monitoring and Assessment & Lab	3	NRM	450-450L	Freshwater Monitoring and Assessment & Lab	3
NRM	466-466L	Environmental Toxicology and Contaminants	3	NRM	466-466L	Environmental Toxicology and Contaminants	3
NRM	482-482L	Natural Resource Management Biometry & Lab	3	NRM	482-482L	Natural Resource Management Biometry & Lab	3
PRAG	340	Climate Risk Management with Precision Agriculture	3	PRAG	340	Climate Risk Management with Precision Agriculture	3
RANG	210-210L	Range Plant Identification & Lab	2	RANG	210-210L	Range Plant Identification & Lab	2
RANG	425-425L	Rangeland Assessment and Monitoring & Lab	3	RANG	425-425L	Rangeland Assessment and Monitoring & Lab	3
RANG	421	Grassland Fire Ecology	3	RANG	421	Grassland Fire Ecology	3
RECR	302	Commercial Recreation and Tourism	3	RECR	302	Commercial Recreation and Tourism	3

*Existing Curriculum*

*Proposed Curriculum (highlight changes)*

Pref.	Num	Title	Cr.Hrs	Pref.	Num	Title	Cr. Hrs
RECR	360	Sport, Recreation, and Park Programming	3	RECR	360	Sport, Recreation, and Park Programming	3
RECR	415	Recreation and Sport Facility Management	3	RECR	415	Recreation and Sport Facility Management	3
WL	302	Animal Behavior	3	<b>WL</b>	<b>302</b>	<b>Animal Behavior</b>	<b>2</b>
WL	355-355L	Mammalogy & Lab	3	WL	355-355L	Mammalogy & Lab	3
WL	363-363L	Ornithology & Lab	4	WL	363-363L	Ornithology & Lab	4
WL	367-367L	Ichthyology & Lab	3	WL	367-367L	Ichthyology & Lab	3
WL	411-411L	Principles of Wildlife Management & Lab	3	WL	411-411L	Principles of Wildlife Management & Lab	3
WL	412-412L	Principles of Fisheries Management & Lab	3	WL	412-412L	Principles of Fisheries Management & Lab	3
WL	415-415L	Upland Game Ecology and Management & Lab	3	WL	415-415L	Upland Game Ecology and Management & Lab	3
WL	417-417L	Large Mammal Ecology and Management & Lab	3	WL	417-417L	Large Mammal Ecology and Management & Lab	3
WL	419-419L	Waterfowl Ecology and Management & Lab	3	WL	419-419L	Waterfowl Ecology and Management & Lab	3
WL	425-425L	Wildlife Nutrition and Disease & Lab	3	WL	425-425L	Wildlife Nutrition and Disease & Lab	3
WL	427-427L	Limnology & Lab	3	WL	427-427L	Limnology & Lab	3
WL	431-431L	Advanced Fisheries Management & Lab	3	WL	431-431L	Advanced Fisheries Management & Lab	3
WL	434-434L	Herpetology & Lab	3	WL	434-434L	Herpetology & Lab	3
<b>Electives</b>			<b>5</b>	<b>Electives</b>			<b>3</b>
<b>Summary of Credits Conservation Planning &amp; Park Management (B.S.)</b>							
<b>System General Education Requirements</b>			<b>32</b>	<b>System General Education Requirements</b>			<b>32</b>
<b>College Requirements</b>			<b>0</b>	<b>College Requirements</b>			<b>0</b>
<b>Major Requirements</b>			<b>83</b>	<b>Major Requirements</b>			<b>85</b>
<b>Major Core (62)</b>				<b>Major Core (64)</b>			
<b>CPPM Major Electives (21)</b>				<b>CPPM Major Electives (21)</b>			
<b>Electives</b>			<b>5</b>	<b>Electives</b>			<b>3</b>
Total number of hours required for major and specialization			83	Total number of hours required for major			<b>85</b>
			120	Total number of hours required for degree			120

**7. Explanation of the Change:**

RANG 374-374L Habitat Conservation and Management and Lab will increase from 3 to 4 credit hours. The current course structure is two 50-minute lectures and one 3-hour lab. The amount of lecture material that needs to be covered is not fitting into the current structure and the instructors are not able to go in depth to meet the Student Learning Outcomes (SLOs). Historically, this course had been 4-cr, three 50-minute lectures and one 2-hour lab. The Department thought they could achieve the SLOs under the current format, but assessment metrics (quizzes and exams scores) reveal that students are not thinking critically nor developing the required level of understanding of course content.

A new course has been added to all programs within Natural Resource Management. NRM 276 Scientific Communications (1 cr.) will emphasize best practices in communicating science in written reports and oral presentations to prepare students for upper level natural resource management courses.