



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

Substantive Program Modification Form

UNIVERSITY:	SDSU
CURRENT PROGRAM DEGREE:	Bachelor of Science (B.S.)
CURRENT PROGRAM MAJOR/MINOR:	Horticulture
CURRENT SPECIALIZATION:	N/A
CIP CODE:	01.0601
UNIVERSITY DEPARTMENT:	Agronomy, Horticulture & Plant Science
BANNER DEPARTMENT CODE:	SAHP
UNIVERSITY COLLEGE:	Agriculture, Food & Environmental Sciences
BANNER COLLEGE CODE:	3F

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

4/3/2023

Date

1. This modification addresses a change in:

- | | |
|--|---|
| <input checked="" type="checkbox"/> Total credits required within the discipline | <input checked="" 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 type="checkbox"/> Other (explain below) |
| <input type="checkbox"/> 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 ☐ 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. 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:

7. Primary Aspects of the Modification:

Existing Curriculum

Proposed Curriculum (highlight changes)

Pref.	Num.	Title	Cr. Hrs.	Pref.	Num.	Title	Cr. Hrs.
Systems General Education Requirements			30-31	Systems General Education Requirements			30-31
Systems General Education Requirements – Electives			12	Systems General Education Requirements – Electives			21
						SGR #1	3
						SGR #1	3
						SGR #2	3
		SGR #3	3			SGR #3	3
		SGR #3	3			SGR #3	3
		SGR #4	3			SGR #4	3
		SGR #4	3			SGR #4	3
Systems General Education Requirements – Required			18-19	Systems General Education Requirements – Required			9-10
ENGL	101	Composition I (SGR #1)	3	ENGL	101	Composition I (SGR #1)	3
ENGL	201	Composition I (3) (SGR #1)	3	ENGL	201	Composition I (3) (SGR #1)	3
CMST	101	Fundamentals of Speech (SGR #2)	3	CMST	101	Foundations of Communication (SGR #2)	3
MATH	114	College Algebra (SGR #5)	3	MATH	114	College Algebra (SGR #5)	3
BIOL OR BIOL	101-101L 151-151L	Biology Survey I and Lab (SGR #6) (2,1) General Biology and Lab (SGR #6) (4,0)	3-4	BIOL OR BIOL	101-101L 151-151L	Biology Survey I and Lab (2,1) General Biology and Lab (4,0)	3-4
BOT	201	General Botany (SGR #6)	3	BOT	201	General Botany (SGR #6)	3
BOT	201L	General Botany Lab (SGR #6)	0	BOT	201L	General Botany Lab (SGR #6)	0
College Requirements			12	College Requirements			12
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.				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.			
HO	111	Introduction to Horticulture	2	HO	111	Introduction to Horticulture	2
HO	111L	Introduction to Horticulture Lab	1	HO	111L	Introduction to Horticulture Lab	1
PS	213	Soils	2	PS	213	Soils	2
PS	213L	Soils Lab	1	PS	213L	Soils Lab	1
PS	223	Principles of Plant Pathology	2	PS	223	Principles of Plant Pathology	2
PS	223L	Principles of Plant Pathology Lab	1	PS	223L	Principles of Plant Pathology Lab	1
PS	405	Entomology	3	PS	405	Entomology	3
PS	405L	Entomology Lab	0	PS	405L	Entomology Lab	0
Major Requirements			72	Major Requirements			84
Major Core			57	Major Core			69
ABS	475	Integrated Natural Resource Management	3	ABS	475	Integrated Natural Resource Management	3
ABS	475L	Integrated Natural Resource Management Lab	0	ABS	475L	Integrated Natural Resource Management Lab	0
BOT	327	Plant Physiology	4	BOT	327	Plant Physiology	3
BOT	327L	Plant Physiology Lab	0	BOT	327L	Plant Physiology Lab	1
CHEM	106	Chemistry Survey	3	CHEM	106	Chemistry Survey	3
CHEM	106L	Chemistry Survey Lab	1	CHEM	106L	Chemistry Survey Lab	1
CHEM	108	Organic & Biochemistry	4	CHEM	108	Organic & Biochemistry	4
CHEM	108L	Organic & Biochemistry Lab	1	CHEM	108L	Organic & Biochemistry Lab	1
				HO	111	Introduction to Horticulture	2
				HO	111L	Introduction to Horticulture Lab	1

Existing Curriculum

Proposed Curriculum (highlight changes)

Pref.	Num.	Title	Cr. Hrs.	Pref.	Num.	Title	Cr. Hrs.
HO/PS	210	Turf and Weed Management in Horticulture	3	HO/PS	210	Turf and Weed Management in Horticulture	2
HO/PS	210L	Turf and Weed Management in Horticulture Lab	0	HO/PS	210L	Turf and Weed Management in Horticulture Lab	1
HO/PS	255	Woody Plants	4	HO/PS	255	Woody Plants	3
HO/PS	255L	Woody Plants Lab	0	HO/PS	255L	Woody Plants Lab	1
HO/PS	311	Herbaceous Plants	3	HO/PS	311	Herbaceous Plants	2
HO/PS	311L	Herbaceous Plants Lab	0	HO/PS	311L	Herbaceous Plants Lab	1
HO/PS	329	Horticultural Pests	3	HO/PS	329	Horticultural Pests	3
HO/PS	339	Arboriculture and Urban Forestry	3	HO/PS	339	Arboriculture and Urban Forestry	3
HO/PS OR HO/PS	411 444	Fruit Crop Systems Vegetable Crop Systems (1-2 cr modules – need 2cr)	2	HO/PS OR HO/PS	411 444	Fruit Crop Systems Vegetable Crop Systems (1-2 cr modules – need 2cr)	2
HO/PS	413	Greenhouse and High Tunnel Management	3	HO/PS	413	Greenhouse and High Tunnel Management	2
HO/PS	413L	Greenhouse and High Tunnel Management Lab	0	HO/PS	413L	Greenhouse and High Tunnel Management Lab	1
HO/PS	414	Plant Propagation	3	HO/PS	414	Plant Propagation	2
HO/PS	414L	Plant Propagation Lab	0	HO/PS	414L	Plant Propagation Lab	1
HO	416	Landscape Nursery Management	3	HO	416	Landscape Nursery Management	3
HO/PS	434	Local Food Production SP or SU1 or SU2 or FL	2	HO/PS	434	Local Food Production SP or SU1 or SU2 or FL	2
HO/PS	435	Local Food Production: Harvest and Storage	2	HO/PS	435	Local Food Production: Harvest and Storage	2
HO/PS	447	Organic Food and Plant Production	3	HO/PS	447	Organic Food and Plant Production	3
HO/PS	490	Seminar	1	HO/PS	490	Seminar	1
HO/PS	494	Internship	1	HO/PS	494	Internship	1
PHYS	101	Survey of Physics	4	PHYS	101	Survey of Physics	3
PHYS	101L	Survey of Physics Lab	0	PHYS	101L	Survey of Physics Lab	1
PS	119	First Year Seminar	1	PS	119	First Year Seminar	1
				PS	213	Soils	2
				PS	213L	Soils Lab	1
				PS	223	Principles of Plant Pathology	2
				PS	223L	Principles of Plant Pathology Lab	1
				PS	405	Entomology	3
				PS	405L	Entomology Lab	0
Technical Electives Select 15 credits from the following lists: It is recommended that students select from one set of technical electives			15	Technical Electives Select 15 credits from 200 and above level courses with ACCT, AGECE, BADM, BLAW, BOT, ECON, ENTR, FIN, FS, MGMT, MICR, MKTG prefix, or 300 and above level courses with HO or AST prefix, or any course with LA or NUTR prefix. Courses selected for Technical Electives cannot be used to fulfill the Core requirements in the Horticulture major.			15
Business Emphasis Students with an interest in nursery management, landscape maintenance, arboriculture, or garden center or greenhouse business should follow the Business Emphasis. Credits: 15				Business Emphasis Students with an interest in nursery management, landscape maintenance, arboriculture, or garden center or greenhouse business should follow the Business Emphasis. Credits: 15			
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
AST	434	Landscape Irrigation	3	AST	434	Landscape Irrigation	3
AST	434L	Landscape Irrigation Lab	0	AST	434L	Landscape Irrigation Lab	0
BADM	360	Organization and Management	3	BADM	360	Organization and Management	3
BLAW	350	Legal Environment of Business	3	BLAW	350	Legal Environment of Business	3

Existing Curriculum

Proposed Curriculum (highlight changes)

Pref.	Num.	Title	Cr. Hrs.	Pref.	Num.	Title	Cr. Hrs.
BOT/ HO	303	Forest Ecology and Management	3	BOT/ HO	303	Forest Ecology and Management	3
BOT/ HO	303L	Forest Ecology and Management Lab	0	BOT/ HO	303L	Forest Ecology and Management Lab	0
ECON	201	Principles of Microeconomics	3	ECON	201	Principles of Microeconomics	3
ECON	202	Principles of Macroeconomics	3	ECON	202	Principles of Macroeconomics	3
FIN	280	Personal Finance	3	FIN	280	Personal Finance	3
FIN	310	Business Finance	3	FIN	310	Business Finance	3
HO/PS	105	Insects and Society	3	HO/PS	105	Insects and Society	3
HO	383	Principles of Crop Improvement	2	HO	383	Principles of Crop Improvement	2
HO	383L	Principles of Crop Improvement Lab	1	HO	383L	Principles of Crop Improvement Lab	1
HO	434	Local Food Production	2	HO	434	Local Food Production	2
HO OR HO	444	Vegetable Food Production (1-6) †	1-6	HO OR HO	444	Vegetable Food Production (1-6) †	1-6
HO	411	Fruit Crop Systems (1-6)		HO	411	Fruit Crop Systems (1-6)	
HO	491	Independent Study	1-5	HO	491	Independent Study	1-5
HO	494	Internship	1-2	HO	494	Internship	1-2
HO	498	Undergraduate Research/Scholarship	1-3	HO	498	Undergraduate Research/Scholarship	1-3
MGMT	334	Small Business Management	3	MGMT	334	Small Business Management	3
Food Crop Emphasis Students with an interest in food crop production and marketing should follow the Food Crop Emphasis. Credits: 15				Food Crop Emphasis Students with an interest in food crop production and marketing should follow the Food Crop Emphasis. Credits: 15			
AST	434	Landscape Irrigation	3	AST	434	Landscape Irrigation	3
AST	434L	Landscape Irrigation Lab	0	AST	434L	Landscape Irrigation Lab	0
BADM	334	Small Business Management	3	BADM	334	Small Business Management	3
FS	251	Food Safety and Quality Management Systems	3	FS	251	Food Safety and Quality Management Systems	3
HO/PS	105	Insects and Society	3	HO/PS	105	Insects and Society	3
HO	434	Local Food Production	2	HO	434	Local Food Production	2
HO OR HO	444	Vegetable Food Production (1-6)	1-3	HO OR HO	444	Vegetable Food Production (1-6)	1-3
HO	411	Fruit Crop Systems (1-6)		HO	411	Fruit Crop Systems (1-6)	
HO	491	Independent Study	1-5	HO	491	Independent Study	1-5
HO	494	Internship	1-2	HO	494	Internship	1-2
HO	498	Undergraduate Research/Scholarship	1-3	HO	498	Undergraduate Research/Scholarship	1-3
MICR	231	General Microbiology	4	MICR	231	General Microbiology	4
MICR	231L	General Microbiology Lab	0	MICR	231L	General Microbiology Lab	0
MICR	311	Food Microbiology	4	MICR	311	Food Microbiology	4
MICR	311L	Food Microbiology Lab	0	MICR	311L	Food Microbiology Lab	0
NUTR	111	Food, People and the Environment	3	NUTR	111	Food, People and the Environment	3
Production Emphasis Students interested in crop management and production technologies of greenhouse, nursery, turf, fruit, or vegetable crops can tailor their program of studies using the Production curriculum. Credits: 15				Production Emphasis Students interested in crop management and production technologies of greenhouse, nursery, turf, fruit, or vegetable crops can tailor their program of studies using the Production curriculum. Credits: 15			
AST	434	Landscape Irrigation	3	AST	434	Landscape Irrigation	3
AST	434L	Landscape Irrigation Lab	0	AST	434L	Landscape Irrigation Lab	0
BOT/ HO	303	Forest Ecology and Management	3	BOT/ HO	303	Forest Ecology and Management	3
BOT/ HO	303L	Forest Ecology and Management Lab	0	BOT/ HO	303L	Forest Ecology and Management Lab	0
HO/PS	105	Insects and Society	3	HO/PS	105	Insects and Society	3
HO	327	Golf Course Design and Management	3	HO	327	Golf Course Design and Management	3

Existing Curriculum

Proposed Curriculum (highlight changes)

Existing Curriculum				Proposed Curriculum (highlighted changes)			
Pref.	Num.	Title	Cr. Hrs.	Pref.	Num.	Title	Cr. Hrs.
HO	327L	Golf Course Design and Management Lab	0	HO	327L	Golf Course Design and Management Lab	0
HO	383	Principles of Crop Improvement	2	HO	383	Principles of Crop Improvement	2
HO	383L	Principles of Crop Improvement Lab	1	HO	383L	Principles of Crop Improvement Lab	1
HO	434	Local Food Production	2	HO	434	Local Food Production	2
HO	444	Vegetable Food Production (1-6)	1-3	HO	444	Vegetable Food Production (1-6)	1-3
OR HO	411	Fruit Crop Systems (1-6) †		HO OR	411	Fruit Crop Systems (1-6) †	
HO	491	Independent Study	1-5	HO	491	Independent Study	1-5
HO	494	Internship	1-2	HO	494	Internship	1-2
HO	498	Undergraduate Research/Scholarship	1-3	HO	498	Undergraduate Research/Scholarship	1-3
LA	101	Ecology and the Built Landscape	3	LA	101	Ecology and the Built Landscape	3
PS	421	Soil Microbiology	3	PS	421	Soil Microbiology	3
PS	421L	Soil Microbiology Lab	0	PS	421L	Soil Microbiology Lab	0
Science Emphasis Students with an interest in pursuing a graduate degree or laboratory science career should follow the Science Emphasis. Credits: 15				Science Emphasis Students with an interest in pursuing a graduate degree or laboratory science career should follow the Science Emphasis. Credits: 15			
BIOL	202	Genetics and Molecular Biology	3	BIOL	202	Genetics and Molecular Biology	3
BIOL	202L	Genetics and Molecular Biology Lab	1	BIOL	202L	Genetics and Molecular Biology Lab	1
BIOL	204	Introduction to Cell Biology	3	BIOL	204	Introduction to Cell Biology	3
BIOL	204L	Introduction to Cell Biology Lab	1	BIOL	204L	Introduction to Cell Biology Lab	1
CHEM	114	General Chemistry II	3	CHEM	114	General Chemistry II	3
CHEM	114L	General Chemistry II Lab	1	CHEM	114L	General Chemistry II Lab	1
CHEM	326	Organic Chemistry I	3	CHEM	326	Organic Chemistry I	3
CHEM	326L	Organic Chemistry I Lab	1	CHEM	326L	Organic Chemistry I Lab	1
CHEM	464	Biochemistry I	3	CHEM	464	Biochemistry I	3
CHEM	466	Laboratory Methods – Biochemistry	1	CHEM	466	Laboratory Methods – Biochemistry	1
STAT	281	Introduction to Statistics	3	STAT	281	Introduction to Statistics	3
*Students wishing to pursue a graduate degree or laboratory science career should replace biology, math and chemistry in the core curriculum with the following courses.				*Students wishing to pursue a graduate degree or laboratory science career should replace biology, math and chemistry in the core curriculum with the following courses.			
BIOL	151	General Biology I	4	BIOL	151	General Biology I	4
BIOL	151L	General Biology I Lab	0	BIOL	151L	General Biology I Lab	0
CHEM	112	General Chemistry I	3	CHEM	112	General Chemistry I	3
CHEM	112	General Chemistry I Lab	1	CHEM	112	General Chemistry I Lab	1
MATH	120	Trigonometry	3	MATH	120	Trigonometry	3
Electives (Taken as needed to complete any additional degree requirements.)			5-6	Electives (Taken as needed to complete any additional degree requirements.)			5-6
Notes † Modules must be different than those used to satisfy core curriculum. †† It is recommended that students take no more than 6 credits of HO/AST courses in developing a plan of study for the Business Emphasis.				Notes † Modules must be different than those used to satisfy core curriculum. †† It is recommended that students take no more than 6 credits of HO/AST courses in developing a plan of study for the Business Emphasis.			
Summary of Credits in Horticulture (B.S.)							
System General Education Requirements			30-31	System General Education Requirements			30-31
College Requirements			12	College Requirements			12
Major Requirements			72	Major Requirements			84
Electives			5-6	Electives			5-6

<i>Existing Curriculum</i>				<i>Proposed Curriculum (highlight changes)</i>			
Pref.	Num.	Title	Cr. Hrs.	Pref.	Num.	Title	Cr. Hrs.
		Total number of hours required for major	102-103			Total number of hours required for major	93-94
		Total number of hours required for degree	120			Total number of hours required for degree	120

8. Explanation of the Change:

Removed a specific course selection from SGR #1 and SGR #2 to allow students more flexibility in meeting their System General Education requirements.

Added BIOL 151-151L General Biology I & Lab and CHEM 112/L General Chemistry I & Lab as options for SGR #6. Through advising, students will still be directed to BIOL 101-101LL Biology Survey I & Lab and CHEM 106-106L Chemistry Survey & Lab, so no impact to course capacity is anticipated. Added the options of the higher level science courses reduces common substitutions that would be allowed if students change majors, transfer in credit, or experience course conflicts.

The College of Agriculture, Food and Environmental Sciences has eliminated the college requirement to complete 11 credits from the Group 1 list. The 12 credit hours previously listed under college requirements were realigned to the Major Requirements to better clarify that these courses are program/major requirements.

The department has revised the technical electives from listing various categories. These categories were recommendations and not required as part of the program. Students will select 15 credits from 200 and above level courses with ACCT, AGECE, BADM, BLAW, BOT, ECON, ENTR, FIN, FS, MGMT, MICR, MKTG prefix, or 300 and above level courses with HO or AST prefix, or any course with LA or NUTR prefix. Courses selected for Technical Electives cannot be used to fulfill the core requirements in the Horticulture major.

In addition, departments have updated zero credit lab courses. Departments have adjusted the credits between the lecture and labs to accurately reflect contact time.