



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

New Course Request

SDSU	Agriculture, Food & Environmental Sciences / Agronomy, Horticulture & Plant Science
Institution	Division/Department
Dennis D. Hedge	5/3/2021
Institutional Approval Signature	Date

Section 1. Course Title and Description

Prefix & No.	Course Title	Credits
PRAG 310	Sustainable Agriculture	3

Course Description

This course is intended for students with an interest in sustainable food production systems. It provides a broad overview of practices in a variety of ecological, social, and economic topics within the framework of sustainability. Students will analyze the sustainability of food production from both a conventional and a precision agriculture aspect.

Pre-requisites or Co-requisites

Prefix & No.	Course Title	Pre-Req/Co-Req?
PS 213-213L	Soils	Pre-Req
PS 103-103L	Crop Production	Pre-Req

Registration Restrictions

None

Section 2. Review of Course

2.1. Will this be a unique or common course?

Unique Course

Prefix & No.	Course Title	Credits
PS 462-562	Environmental Soil Management	3
PS/HO 447-547	Organic Crop Production	3

Provide explanation of differences between proposed course and existing system catalog courses below:

The proposed PRAG 310 course provides students with an overview of the principles and concepts of Sustainable Agriculture. We will discuss a variety of ecological, social, and economic topics within the framework of sustainability. Students will analyze the sustainability of food production systems in both conventional and precision agriculture venues. Sustainable crop production, nutrient management, soil management, pest management, integrated crop livestock systems, crop diversity, water management, bioenergy crops, landscape ecology, are among the main topics to be discussed in this course.

In comparison, the existing PS 462-562 Environmental Soil Management course, great emphases are placed on soil problems important in production systems and environmental management, including compaction, erosion, and nonpoint pollution, which are analyzed based on underlying environmental and agronomic principles. In PS/HO 447-547 Organic Crop Production an overview of small-scale organic farming is characterized for suburban and urban settings. The topics covered in that course include organic certification, soil and

nutrient, and pest management for organic crop production, and the marketing of the organic produce, which are greatly different than the topics discussed in this proposed PRAG 310.

Section 3. Other Course Information

3.1. Are there instructional staffing impacts?

No. Schedule Management, explain below: This new course fits well into the instructor’s workload and training background. It will only be offered once a year in the fall semester to balance the fall/spring offerings in the in the Plant Science elective area of Soils/Environmental Protection.

3.2. Existing program(s) in which course will be offered: Agronomy (B.S.), Soil Science Minor

3.3. Proposed instructional method by university: R - Lecture

3.4. Proposed delivery method by university: 001 - Face-to-Face Term Based Instruction)

3.5. Term change will be effective: Fall 2021

3.6. Can students repeat the course for additional credit? Yes No

3.7. Will grade for this course be limited to S/U (pass/fail)? Yes No

3.8. Will section enrollment be capped? Yes, max per section: 30 No

3.9. Will this course equate (i.e., be considered the same course for degree completion) with any other unique or common courses in the common course system database in Colleague and the Course Inventory Report? Yes No

3.10. Is this prefix approved for your university? Yes No

Section 4. Department and Course Codes (Completed by University Academic Affairs)

4.1. University Department: Agronomy, Horticulture and Plant Science

4.2. Banner Department Code: SAHP

4.3. Proposed CIP Code: 01.0308

Is this a new CIP code for the university? Yes No

**NEW COURSE REQUEST
Supporting Justification for On-Campus Review**

Navreet Mahal	Navreet Mahal	3/12/2021
Request Originator	Signature	Date
David Wright	David Wright	3/12/2021
Department Chair	Signature	Date
Vikram Mistry	Vikram Mistry	3/24/2021
School/College Dean	Signature	Date

1. Provide specific reasons for the proposal of this course and explain how the changes enhance the curriculum.

A course is not offered that focuses on agricultural sustainability, which is of growing importance. From the standpoint of maintaining and regenerating soils to minimizing agricultural impacts causing climate change, this course brings together an overview of sustainable agriculture. There is a definite drive to make grain, seed, and farm production more sustainable so that both resources are available to future generations and we lessen climatic impacts from agriculture.

Course objectives:

- To introduce students with the concepts and principles associated with Sustainable Agriculture.
- To increase understanding of production (conventional and precision agriculture), environmental, economic, and social aspects of sustainability in agroecosystems.
- To facilitate critical thinking about complex agricultural problems and possible solutions.

- To explore multiple methods of inquiry into sustainable agriculture and associated assumptions.

Learning outcomes:

At the end of this course, students will:

- understand how issues at various levels of food production influence agricultural sustainability and food supply.
- have a basic understanding of farming practices and management systems that can increase the environmental, social, and economic sustainability of agriculture.
- develop the ability to analyze agricultural and food systems within the context of agricultural ecology, landscape ecology, ecological economics, and coupled human and natural systems.

- Note whether this course is: Required Elective
- In addition to the major/program in which this course is offered, what other majors/programs will be affected by this course?
This course may also be of interest to Agricultural Science, Agricultural Science Technology, Horticulture, and Precision Agriculture majors. The Department of Natural Resource Management has also indicated an interest in the course.
- If this will be a dual listed course, indicate how the distinction between the two levels will be made.
N/A
- Desired section size 30
- Provide qualifications of faculty who will teach this course. List name(s), rank(s), and degree(s).
Navreet Mahal, Ph. D., Lecturer
- Note whether adequate facilities are available and list any special equipment needed for the course.
Adequate facilities are available and will be enhanced with teaching spaces in the new Raven Precision Ag building.
- Note whether adequate library and media support are available for the course.
Adequate library and media support are available.
- Will the new course duplicate courses currently being offered on this campus? Yes No
- If this course may be offered for variable credit, explain how the amount of credit at each offering is to be determined.
N/A