



**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
HO / PS 345	Non-Chemical Weed Management	3

Course Description

This course explores weed management options without the use of synthetic herbicides. Biological and ecological relationships between crops and weeds are characterized. Site specific and sustainable weed management systems are explored with emphasis on mechanical, cultural, and biological methods. Environmentally sustainable weed management methods are discussed in organic and non-organic farming.

Pre-requisites or Co-requisites

Prefix & No.	Course Title	Pre-Req/Co-Req?
PS 103-103L or HO 111-111L	Crop Production and Lab Introduction to Horticulture and Lab	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 445-445L	Weed Science and Lab	3
HO 210-210L	Turf and Weed Management in Horticulture and Lab	3

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

In PS 445, great emphasis is directed towards chemical weed management as the dominant factor in cropping systems, and all the factors that affect chemical weed control are addressed. Herbicide classification and modes of action is a very important component of that course, which is not the case at all in this new course. In HO 210-210L, the introduction to basic maintenance and creation of lawns and the management of turf grass is the major focus of the course. In this course also, there is also emphasize on using herbicides to manage weed in turf, which is not addressed at all in HO/PS 345. The main focus of HO/PS 345 will be on preventive measures, cultural practices, biological practices, mechanical, and integrated weed management weed approaches.

Section 3. Other Course Information

3.1. Are there instructional staffing impacts?

No. Schedule Management, explain below: The course will only be offered once a year (probably in the spring) which will work in the faculty workload. It has been taught 3 times previously as a special topic (twice at the undergraduate level and once at the graduate level).

3.2. Existing program(s) in which course will be offered: Agronomy (B.S.), Pest Management 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: 40 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: 01.1101

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

NEW COURSE REQUEST

Supporting Justification for On-Campus Review

<u>Hani Ghosheh</u> Request Originator	<u>Hani Ghosheh</u> Signature	<u>3/5/2021</u> Date
<u>David Wright</u> Department Chair	<u>David Wright</u> Signature	<u>3/5/2021</u> Date
<u>Vikram Mistry</u> School/College Dean	<u>Vikram Mistry</u> Signature	<u>3/24/2021</u> Date

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

Emphases will be given to weed management options other than herbicide applications. Methodologies and technologies suitable for organic farming including mechanical, cultural, and biological means will be thoroughly discussed for Agronomic and Horticultural crops. The course promotes environmentally sustainable management systems based on the biological and ecological relationships between crops and weeds. Consideration upon discussing the management strategies will be given to historical weed problems, soil management practices, crop rotations, machinery, markets, weather, time and labor. Students will acquire the ability to develop suitable weed control strategies based on weed infestation and herbicide resistant situations and will learn how to avoid potential weed problems. The course was offered as a special topic in Spring 2018 and Fall 2019 for undergraduate students as PS 492.

This course will increase the electives pool of courses that are available for AHPS students and will diversify their options and knowledge in fulfilling their educational goals and career objectives. It will also cover aspects of sustainable and organic weed management, two rising concepts in the crop

production systems.

2. Note whether this course is: Required Elective
3. 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, Animal Science, and Horticulture majors. The Department of Natural Resource Management has also indicated an interest in the course.
4. If this will be a dual listed course, indicate how the distinction between the two levels will be made.
N/A
5. Desired section size 40
6. Provide qualifications of faculty who will teach this course. List name(s), rank(s), and degree(s).
Hani Ghosheh, Ph. D., Lecturer
7. 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.
8. Note whether adequate library and media support are available for the course.
Adequate library and media support are available.
9. Will the new course duplicate courses currently being offered on this campus? Yes No
10. If this course may be offered for variable credit, explain how the amount of credit at each offering is to be determined.
N/A