



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

New Course Request

SDSU	College of Agriculture, Food and Environmental Sciences / Agricultural & Biosystems Engineering
Institution	Division/Department
Dennis D. Hedge	2/13/2025
Institutional Approval Signature	Date

Section 1. Course Title and Description

Prefix & No.	Course Title	Credits
PRAG 204	Precision Agriculture for Teachers	2

Course Description

Students will obtain general working knowledge of GPS systems, vehicle guidance systems, data management software, yield monitors, general precision ag practices, and the environmental benefits of implementing precision agriculture practices.

Pre-requisites or Co-requisites

Prefix & No.	Course Title	Pre-Req/Co-Req?
None		

Registration Restrictions

Students must be enrolled in the Agricultural Education, Communication and Leadership – Agricultural Education Specialization.

Section 2. Review of Course

2.1. Will this be a unique or common course?

Unique Course

Prefix & No.	Course Title	Credits
PRAG 203-203L	Introduction to Precision Agriculture and Lab	2, 1
AST 211L	Ag and Outdoor Power for Teachers	1

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

PRAG 203 Introduction to Precision Agriculture introduces students to the tools and equipment used in precision farming practices. The approach of PRAG 204 Precision Agriculture for Teachers will be very different than that of PRAG 203, with a primary objective of the proposed course being how to teach precision agriculture at the high school level. Technology advancements in agriculture have shifted the need for exposure to precision agriculture at the high school level. PRAG 204 will better prepare future agriculture educators to teach modern agriculture topics in the high school classrooms. AST 211L Ag and Outdoor Power for Teachers will no longer be offered at SDSU with the implementation of the proposed course, PRAG 204. This is to ensure the coursework aligns with newly developed career clusters for high school ag education standards. The National Career Clusters for Career and Technical Education are shifting to include justification for agricultural technology and automation exposure along with clean and alternative energy training.

Section 3. Other Course Information

3.1. Are there instructional staffing impacts?

No. Schedule Management, explain below: Workload is available to offer the proposed courses every spring. The Department of Agricultural and Biosystems Engineering will phase out sections of AST 202-202L Construction Techniques and Materials and Lab (1, 1 cr.), AST 211L Ag and Outdoor Power for Teachers (1 cr.), AST 311L Applied Electricity for Teachers Lab (1 cr.).

3.2. Existing program(s) in which course will be offered: Agricultural Education, Communication and Leadership (B.S.) – Agricultural Education Specialization

3.3. Proposed instructional method by university (as defined by AAC Guideline 5.4): R - Lecture

3.4. Proposed delivery method by university (as defined by AAC Guideline 5.5): 001 - Face to Face

3.5. Term change will be effective: Fall 2025

3.6. Can students repeat the course for additional credit? Yes, total credit limit: 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: 20 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: Agricultural and Biosystems Engineering

4.2. Banner Department Code: SABG

4.3. Proposed CIP Code: 01.0201

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

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

<u>Nic Uilk</u> Request Originator	<u>Nic Uilk</u> Signature	<u>10/31/2024</u> Date
<u>Kasiviswanathan Muthukumarappan</u> Department Chair	<u>Kasiviswanathan Muthukumarappan</u> Signature	<u>10/31/2024</u> Date
<u>James Connors</u> School/College Dean	<u>James Connors</u> Signature	<u>10/31/2024</u> Date

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

Technology advancements in agriculture have shifted the need for exposure to precision agriculture at the high school level. PRAG 204 will better prepare future agriculture educators to teach modern agriculture topics in the high school classrooms. Students will obtain general working knowledge GPS systems, vehicle guidance systems, data management software, yield monitors, general precision ag practices, and the environmental benefits of implementing precision agriculture practices. The National Career Clusters for Career and Technical Education are also shifting to include justification for agricultural technology and automation exposure along with clean and alternative energy training.

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?

None

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 20

6. Provide qualifications of faculty who will teach this course. List name(s), rank(s), and degree(s).

Nicholas Uilk, Klingbeil Endowed Educator in Precision Agriculture/Lecturer, M.S.

7. Note whether adequate facilities are available and list any special equipment needed for the course.
The current facilities and equipment will be sufficient to support this class.
8. Note whether adequate library and media support are available for the course.
Current library and media resources are sufficient to support this course.
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