



**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
AST 205	Principles of Agricultural Systems Technology for Teachers	2
AST 205L	Principles of Agricultural Systems Technology for Teachers Lab	1

AST 205 Course Description
Students will obtain a general working knowledge of spark ignition and compression ignition engines, electrical wiring and circuits, construction procedures, building materials, and safe working practices.

AST 205L Course Description
This course will provide hands-on lab experiences.

Pre-requisites or Co-requisites

Prefix & No.	Course Title	Pre-Req/Co-Req?
AST 205L	Principles of Agricultural Systems Technology for Teachers Lab	Co-req

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
AST 202-202L	Construction Techniques and Materials and Lab	1, 1
AST 211L	Ag and Outdoor Power for Teachers	1
AST 311L	Applied Electricity for Teachers Lab	1

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

The proposed course, AST 205-205L Principles of Agricultural Systems Technology for Teachers and Lab, will replace AST 202-202L Construction Techniques and Materials and Lab, AST 211L Ag and Outdoor Power for Teachers, and AST 311L Applied Electricity for Teachers Lab in the agricultural systems technology curriculum. Students will be better engaged in the content over the semester by completing a single lecture + lab that covers the various topics currently separated into multiple courses. This curriculum change will ensure the program continues to meet the National Career Clusters for Career and Technical Education standards.

Section 3. Other Course Information

3.1. Are there instructional staffing impacts?

No. Schedule Management, explain below: The proposed course will replace 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.). Sections of those courses will be phased out through spring 2027. AST 205-205L will be offered every spring.

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): AST 302: R - Lecture; AST 302L: L - Laboratory

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**

Nic Ulk	Nic Ulk	10/31/2024
Request Originator	Signature	Date
Kasiviswanathan Muthukumarappan	Kasiviswanathan Muthukumarappan	10/31/2024
Department Chair	Signature	Date
James Connors	James Connors	10/31/2024
School/College Dean	Signature	Date

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

In AST 205-205L Principles of Agricultural Systems Technology for Teachers and Lab students will obtain a working knowledge of spark ignition and compression ignition engines, electrical wiring and circuits, construction procedures, building materials, and safe working practices. The proposed course will replace AST 202-202L Construction Techniques and Materials and Lab, AST 211L Ag and Outdoor Power for Teachers, and AST 311L Applied Electricity for Teachers Lab. Students will be better engaged in the content over the semester by completing a single lecture + lab that covers the various topics currently separated into multiple courses. This change also allows for the addition of PRAG 204 Precision Agriculture for Teachers, ensuring our future ag instructors are taking courses that prepare them to teach modern agriculture topics in the high school classrooms. This curriculum change will ensure the program continues to meet the National Career Clusters for Career and Technical Education standards.

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).
Van Kelley, Department Head and Associate Professor Emeritus of Agricultural and Biosystems Engineering, Ph.D.
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