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| For Academic Affairs and Research Use Only |
| Proposal Number |  |
| CIP Code:  |  |
| Degree Code: |  |

**New or Modified Course Proposal Form**

**[ ] Undergraduate Curriculum Council**

**[X] Graduate Council**

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| **[x]New Course, [ ]Experimental Course (1-time offering), or [ ]Modified Course (Check one box)** |

Signed paper copies of proposals submitted for consideration are no longer required. Please type approver name and enter date of approval.

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| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…**Department Curriculum Committee Chair** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…**COPE Chair (if applicable)** |
| Donald Kennedy 3/31/2021**Department Chair** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…**Head of Unit (if applicable)**   |
| GwanSeon Kim 3/31/2021**College Curriculum Committee Chair** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…**Undergraduate Curriculum Council Chair** |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…**Director of Assessment (new courses only)** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…**Graduate Curriculum Committee Chair** |
| Mickey Latour 3/31/2021**College Dean** | Alan Utter 4/28/2021**Vice Chancellor for Academic Affairs** |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…**General Education Committee Chair (if applicable)**   |  |

1. **Contact Person (Name, Email Address, Phone Number)**

Steven Green

sgreen@astate.edu

870-972-3463

1. **Proposed starting term and Bulletin year for new course or modification to take effect**

Fall 2021 start; 2021-2022 bulletin

**Instructions:**

*Please complete all sections unless otherwise noted. For course modifications, sections with a “Modification requested?” prompt need not be completed if the answer is “No.”*

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|  | **Current (Course Modifications Only)** | **Proposed (New or Modified)** *(Indicate “N/A” if no modification)* |
| **Prefix** |  | **PSSC** |
| **Number\*** |  | **5413** |
| **Title** |  | **Rice Production** |
| **Description\*\*** |  | **A study of rice growth characteristics and rice production management systems** |

 ***\**** (Confirm with the Registrar’s Office that number chosen has not been used before and is available for use. For variable credit courses, indicate variable range. *Proposed number for experimental course is 9*. )

\*\*Forty words or fewer as it should appear in the Bulletin.

1. **Proposed prerequisites and major restrictions** **[Modification requested? Yes/No]**

(Indicate all prerequisites. If this course is restricted to a specific major, which major. If a student does not have the prerequisites or does not have the appropriate major, the student will not be allowed to register).

1. **NO** Are there any prerequisites?
	1. If yes, which ones?

Enter text...Why or why not?

Students in the MSA program should already have the necessary general background in plant and soil sciences needed for this course.

1. **YES** Is this course restricted to a specific major?
	1. If yes, which major? MSA
2. **Proposed course frequency [Modification requested? Yes/No]**

(e.g. Fall, Spring, Summer; if irregularly offered, please indicate, “irregular.”) *Not applicable to Graduate courses.*

N/A

1. **Proposed course type [Modification requested? Yes/No]**

Will this course be lecture only, lab only, lecture and lab, activity (e.g., physical education), dissertation/thesis, capstone, independent study, internship/practicum, seminar, special topics, or studio? Please choose one.

Lecture only

1. **Proposed grade type [Modification requested? Yes/No]**

What is the grade type (i.e. standard letter, credit/no credit, pass/fail, no grade, developmental, or other [please elaborate])

Standard letter

1. **YES** Is this course dual-listed (undergraduate/graduate)? PSSC 4413
2. **NO** Is this course cross-listed?

*(If it is, all course entries must be identical including course descriptions. Submit appropriate documentation for requested changes. It is important to check the course description of an existing course when adding a new cross-listed course.)*

**a.** – If yes, please list the prefix and course number of the cross-listed course.

 Enter text...

 **b.** – **Yes / No** Can the cross-listed course be used to satisfy the prerequisite or degree requirements this course satisfies?

 Enter text...

1. **NO** Is this course in support of a new program?

a. If yes, what program?

 Enter text...

1. **NO** Will this course be a one-to-one equivalent to a deleted course or previous version of this course (please check with the Registrar if unsure)?

a. If yes, which course?

Enter text...

**Course Details**

1. **Proposed outline** **[Modification requested? Yes/No]**

(The course outline should be topical by weeks and should be sufficient in detail to allow for judgment of the content of the course.)

Week 1: Background and history of global rice production

Week 2: History of rice production in Arkansas

Week 3: Rice cultivars for cooking and processed foods

Week 4: Rice stand establishment and environmental conditions needed for successful planting

Week 5: Weeds and weed control in rice production

Week 6: Diseases and disease control in rice production

Week 7: Insects and insect control in rice production

Week 8: Nutrient management and fertilizers for rice production

Week 9: Chemical input application strategies in rice production

Week 10: Water management in rice production: flooded rice practices

Week 11: Water management in rice production: alternatives to flooded rice practices

Week 12: Rice milling quality and milling yield factors

Week 13: Rice drying and on-farm storage

Week 14: University of Arkansas rice research program

Week 15: Monitoring rice growth stages with the DD50 Rice Management Program

1. **Proposed special features** **[Modification requested? Yes/No]**

(e.g. labs, exhibits, site visitations, etc.)

N/A

1. **Department staffing and classroom/lab resources**

Course will utilize existing classroom space

1. Will this require additional faculty, supplies, etc.?

Course will require an adjunct faculty member and will obtain professional member (adjunct) graduate faculty status.

1. **NO** Does this course require course fees?

 *If yes: please attach the New Program Tuition and Fees form, which is available from the UCC website.*

**Justification**

**Modification Justification (Course Modifications Only)**

1. Justification for Modification(s)

Enter text...

**New Course Justification (New Courses Only)**

1. Justification for course. Must include:

 a. Academic rationale and goals for the course (skills or level of knowledge students can be expected to attain)

 Arkansas is the number 1 producer of rice in the United States. Each year approximately 1.5 million acres of rice is grown in 40 of the 75 counties in Arkansas and ranks as one of the top 3 crop commodities in cash receipts for Arkansas farmers. Students will learn the technical skills for rice production. The goal for this course is to educate students to a high skill level such that they are able to manage all aspects of rice production, from land preparation; planting; nutrient, disease, irrigation, and pest management; and harvest and post-harvest activities. Students will emerge from this course well-educated in rice production practices.

b. How does the course fit with the mission of the department? If course is mandated by an accrediting or certifying agency, include the directive.

 The mission of the College of Agriculture is to discover, develop, and disseminate knowledge in agricultural and environmental systems to serve and benefit our students, the agricultural community and society. As such, this course serves our students by preparing them with the technical knowledge and skills needed to engage in rice production or to assist others (as consultants, extension specialists, educators, agronomic service representatives, etc.) in rice production.

c. Student population served.

This course serves students in the graduate MSA program in the College of Agriculture, specifically those with an emphasis in Plant and Soil Science.

d. Rationale for the level of the course (lower, upper, or graduate).

This is a graduate level course (5000 level). The course utilizes information learned in undergraduate plant and soil science courses and applies it specifically to the production of rice crops. Graduate students will be required to complete a rice production management plan and give a presentation of that plan to the class as part of this graduate level course.

**Assessment**

**Assessment Plan Modifications (Course Modifications Only)**

1. **Yes / No** Do the proposed modifications result in a change to the assessment plan?

 *If yes, please complete the Assessment section of the proposal*

**Relationship with Current Program-Level Assessment Process (Course modifications skip this section unless the answer to #18 is “Yes”)**

1. What is/are the intended program-level learning outcome/s for students enrolled in this course? Where will this course fit into an already existing program assessment process?

PLO1: Students will demonstrate depth in a concentration area to support their professional goals.

PLO2: Students will demonstrate both verbal and written communication skills.

PLO3: Students will develop advanced skills in critical thinking and analysis applied to solve relevant problems.

1. Considering the indicated program-level learning outcome/s (from question #19), please fill out the following table to show how and where this course fits into the program’s continuous improvement assessment process.

*For further assistance, please see the ‘Expanded Instructions’ document available on the UCC - Forms website for guidance, or contact the Office of Assessment at 870-972-2989.*

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| **Program-Level Outcome 1 (from question #19)** | Students will demonstrate depth in a concentration area to support their professional goals. |
| Assessment Measure | Successful development (Pass in a Pass/Fail class) of a work plan related to the student’s professional goals and interests with input and review by major advisor and instructor in AGRI 6362 (Graduate Communication Skills I, Developing Work Plans |
| Assessment Timetable | Fall semesters of even years |
| Who is responsible for assessing and reporting on the results? | Instructor of AGRI 6362; review by CoA Graduate Committee and CoA Assessment Committee. |

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| **Program-Level Outcome 2 (from question #19)** | Students will demonstrate both verbal and written communication skills. |
| Assessment Measure | Successful completion of written work plan with approval by major advisor and instructor in AGRI 6371.Successful (Pass) slideshow presentation of work plan or thesis to faculty and students in a seminar setting. |
| Assessment Timetable | Spring semesters of even years. |
| Who is responsible for assessing and reporting on the results? | Instructor of AGRI 6371; review by CoA Graduate Committee and CoA Assessment Committee. |
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| **Program-Level Outcome 3 (from question #19)** | Students will develop advanced skills in critical thinking and analysis applied to solve relevant problems. |
| Assessment Measure | Successful completion of the Comprehensive/Final Defense Exam in front of graduate advisory committee. |
| Assessment Timetable | Spring semesters of odd years. |
| Who is responsible for assessing and reporting on the results? | Major advisors; review by CoA Graduate Committee and CoA Assessment Committee. |

*(Repeat if this new course will support additional program-level outcomes)*

 **Course-Level Outcomes**

1. What are the course-level outcomes for students enrolled in this course and the associated assessment measures?

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| **Outcome 1** | Students will be able to diagnose weeds, diseases, and insects common in a rice crop. |
| Which learning activities are responsible for this outcome? | Presentation of images and specimen of prominent weed, disease, and insect species. |
| Assessment Measure  | Practical identification exam graded with rubric. |

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| **Outcome 2** | Students will be able to develop mitigation strategies for weed, disease, and insect infestations in a rice crop. |
| Which learning activities are responsible for this outcome? | Students will prepare a mitigation portfolio for weeds, diseases, and insects based on lecture and class discussion. |
| Assessment Measure  | Assessment of knowledge based on response to case study examination graded with rubric. |

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| **Outcome 3** | Students will be able to identify factors that affect rice milling quality.  |
| Which learning activities are responsible for this outcome? | Visual examination of exhibits of suboptimal rice milling quality and discussion of causes. |
| Assessment Measure  | Written examination graded with rubric. |

*(Repeat if needed for additional outcomes)*

**Bulletin Changes**

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| **Instructions**  |
| **Please visit** [**http://www.astate.edu/a/registrar/students/bulletins/index.dot**](http://www.astate.edu/a/registrar/students/bulletins/index.dot) **and select the most recent version of the bulletin. Copy and paste all bulletin pages this proposal affects below. Please include a before (with changed areas highlighted) and after of all affected sections.** **\*Please note: Courses are often listed in multiple sections of the bulletin. To ensure that all affected sections have been located, please search the bulletin (ctrl+F) for the appropriate courses before submission of this form.**  |

**Plant and Soil Science (PSSC)**

**PSSC 5313. Plant Growth and Development** Auxins, gibberellins, and various other regulators of plant growth; also phenomena such as flowering and dormancy.

**PSSC 5343. Seed Production, Processing and Analysis** Methods of producing quality seeds and seed stocks, processing methods, and techniques of seed analysis and grading.

**PSSC 5413. Rice Production** A study of rice growth characteristics and rice production management systems.

**PSSC 5713. Soil Quality Assessment and Interpretation** A study of the indicators of soil quality, documentation and measurement of soil quality, interpretations of soil quality, impacts and effects of management on soil quality, and the role of conservation planning in improving soil quality.

**PSSC 5813. Soil Fertility** A study of the principles involved in maintaining and increasing fertility of the soil. Lecture two hours, laboratory two hours per week.

**PSSC 5853. Soil and Water** Study of soil and water management practices and strategies as it relates to agriculture, urban planning, and natural resources. Sustainability of the soil resource will be the main focus of this course.