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

**Course Revision Proposal Form**

**[ ] Undergraduate Curriculum Council**

**[X] Graduate Council**

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

Email completed proposals to [curriculum@astate.edu](mailto:curriculum@astate.edu) for inclusion in curriculum committee agenda.

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| David Newman 4/8/2020 **Department Curriculum Committee Chair** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…  **COPE Chair (if applicable)** |
| Donald Kennedy 4/8/2020 **Department Chair:** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…  **Head of Unit (If applicable)** |
| David Newman 4/8/2020 **College Curriculum Committee Chair** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…  **Undergraduate Curriculum Council Chair** |
| Donald Kennedy 4/8/2020 **College Dean** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…  **Graduate Curriculum Committee Chair** |
| |  |  | | --- | --- | | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Enter date |   **General Education Committee Chair (If applicable)** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…  **Vice Chancellor for Academic Affairs** |

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

**GwanSeon Kim,** [gkim@astate.edu](mailto:gkim@astate.edu), 870-972-2087

2. Proposed Starting Term and Bulletin Year for Change to Take Effect

**Fall 2020**

3. Current Course Prefix and Number

**AGEC 6253**

3.1 – **[NO]** Request for Course Prefix and Number change

If yes, include new course Prefix and Number below. *(Confirm that number chosen has not been used before. For variable credit courses, indicate variable range. Proposed number for experimental course is 9. )*

Enter text...

3.2 – **Yes / No** If yes, has it been confirmed that this course number is available for use?

*If no: Contact Registrar’s Office for assistance.*

4. Current Course Title

**Econometrics**

4.1 – **[YES]** Request for Course Title Change

If yes, include new Course Title Below.

**Applied Econometrics**

1. If title is more than 30 characters (including spaces), provide short title to be used on transcripts. *Title cannot have any symbols (e.g. slash, colon, semi-colon, apostrophe, dash, and parenthesis).*

Enter text...

1. Please indicate if this course will have variable titles (e.g. independent study, thesis, special topics).

Enter text...

5. – **[YES ]** Request for Course Description Change.

If yes, please include brief course description (40 words or fewer) as it should appear in the bulletin.

**Application of regression analysis on spatial, time-series, and cross-sectional data to empirically investigate agricultural production, agribusiness management, and environmental components of agriculture. Various estimation methods are discussed.**

6. – [**NO** ] Request for prerequisites and major restrictions change.

*(If yes, 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. **Yes / No** Are there any prerequisites?
   1. If yes, which ones?

Enter text...

* 1. Why or why not?

Enter text...

1. **Yes / No** Is this course restricted to a specific major?
   1. If yes, which major? Enter text...

7. – [**NO** ] Request for Course Frequency Change(e.g. Fall, Spring, Summer). *Not applicable to Graduate courses.*

a. If yes, please indicate current and new frequency:

Enter text...

8. – [**NO** ] Request for Class Mode Change

*If yes, indicate if this course will be lecture only, lab only, lecture and lab, activity, dissertation, experiential learning, independent study, internship, performance, practicum, recitation, seminar, special problems, special topics, studio, student exchange, occupational learning credit, or course for fee purpose only (e.g. an exam)? Please* *indicate the current and choose one.*

Enter text...

9. – [**NO** ] Request for grade type change

*If yes, what is the current and the new grade type (i.e. standard letter, credit/no credit, pass/fail, no grade, developmental, or other [please elaborate])*

Enter text...

10. **NO** Is this course dual listed (undergraduate/graduate)?

a. If yes, indicate course prefix, number and title of dual listed course.

Enter text...

11. **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.)*

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

Enter text...

**11.2** – **Yes / No** Are these courses offered for equivalent credit?

Please explain. Enter text...

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

a. If yes, what program?

Enter text...

13. **NO** Does this course replace a course being deleted?

a. If yes, what course?

Enter text...

14. **NO** Will this course be equivalent to a deleted course or the previous version of the course?

a. If yes, which course?

Enter text...

15. **NO** Does this course affect another program?

If yes, provide confirmation of acceptance/approval of changes from the Dean, Department Head, and/or Program Director whose area this affects.

Enter text...

16. Does this course require course fees?

**NO**

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

**Revision Details**

17. Please outline the proposed revisions to the course.

*Include information as to any changes to course outline, special features, required resources, or in academic rationale and goals for the course.*

**The following table outlines the semester requirements for the course. Emphasis will be given on case study topics each week.**

|  |  |
| --- | --- |
| **Week** | **Topic** |
| **1** | **Introduction to Econometrics and Data Analysis** |
| **2** | **Regression Analysis with Ordinary Least Squares** |
| **3** | **Regression Analysis with Maximum Likelihood** |
| **4** | **Hypothesis Testing** |
| **5** | **Resampling Methods** |
| **6** | **Project Week 1** |
| **7** | **Mid-Term Exam** |
| **8** | **Multiple Equation Models** |
| **9** | **Instrumental Variables** |
| **10** | **Generalized Method of Moments** |
| **11** | **Time Series and Panel Data** |
| **12** | **Spatial and Clustered Data** |
| **13** | **Difference in Difference** |
| **14** | **Causal inference** |
| **15** | **Project Week 2** |
| **16** | **Final Exam** |

18. Please provide justification to the proposed changes to the course.

**The proposed course revisions will modernize this course, providing more focus on empirical analysis with regression procedures. Econometrics is a primary tool for agribusiness professionals to test hypotheses about the market and make predictions that inform decision-making. This course surveys the primary components of econometrics relevant for agribusiness managers in the modern world.**

19. **NO** Do these revisions result in a change to the assessment plan?

*\*If yes: Please complete the Assessment section of the proposal on the next page.*

*\*If no: Skip to Bulletin Changes section of the proposal.*

***\*See question 19 before completing the Assessment portion of this proposal.***

**Assessment**

**Relationship with Current Program-Level Assessment Process**

20. 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?

21. 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?

**The Program Learning Outcome for the Graduate Agribusiness Program partially fulfilled by this course are:**

**PLO 3:** **Students will develop advanced skills in critical thinking and analysis applied to solve relevant problems.**

**The course will follow existing assessment processes established for the agribusiness program. This course is an elective.**

22. Considering the indicated program-level learning outcome/s (from question #23), 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.*

|  |  |
| --- | --- |
| **Program-Level Outcome 3 (from question #23)** | **Students will develop advanced skills in critical thinking and analysis applied to solve relevant problems.** |
| Assessment Measure | **Oral Exit Exam OR Thesis** |
| Assessment  Timetable | **Student’s final semester** |
| Who is responsible for assessing and reporting on the results? | **Major Adviser** |

**Course-Level Outcomes**

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

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| **Outcome 1** | **Gain basic to intermediate data science skills in a statistical programming language** |
| Which learning activities are responsible for this outcome? | **Lectures, videos, and hands-on programming projects and problems sets** |
| Assessment Measure | **Culminating Course Project** |

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| **Outcome 2** | **Understand types, stuctures, and manipulation of agricultural and environmental data** |
| Which learning activities are responsible for this outcome? | **Lectures, videos, and hands-on programming projects and problems sets** |
| Assessment Measure | **Culminating Course Project** |

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| **Outcome 3** | **Understand and calculate descriptive statistics for agricultural and environmental data** |
| Which learning activities are responsible for this outcome? | **Lectures, videos, and hands-on programming projects and problems sets** |
| Assessment Measure | **Culminating Course Project** |

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| **Outcome 4** | **Model and interpret agricultural and environmental data with spatial and temporal attributes** |
| Which learning activities are responsible for this outcome? | **Lectures, videos, and hands-on programming projects and problems sets** |
| Assessment Measure | **Culminating Course Project** |

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| **Outcome 5** | **Visualize agricultural and environmental data in a meaningful, communicative way** |
| Which learning activities are responsible for this outcome? | **Lectures, videos, and hands-on programming projects and problems sets** |
| Assessment Measure | **Culminating Course Project** |

*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 #23)** | Type outcome here. What do you want students to think, know, or do when they have completed the course? |
| Assessment Measure | Please include direct and indirect assessment measure for outcome. |
| Assessment  Timetable | What semesters, and how often, is the outcome assessed? |
| Who is responsible for assessing and reporting on the results? | Who (person, position title, or internal committee) is responsible for assessing, evaluating, and analyzing results, and developing action plans? |

*(Repeat if this new course will support additional program-level 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. Follow the following guidelines for indicating necessary changes.**  **\*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.**  - Deleted courses/credit hours should be marked with a red strike-through (~~red strikethrough~~)  - New credit hours and text changes should be listed in blue using enlarged font (blue using enlarged font).  - Any new courses should be listed in blue bold italics using enlarged font (***blue bold italics using enlarged font***)  *You can easily apply any of these changes by selecting the example text in the instructions above, double-clicking the ‘format painter’ icon 🡪 , and selecting the text you would like to apply the change to.*  *Please visit* [*https://youtu.be/yjdL2n4lZm4*](https://youtu.be/yjdL2n4lZm4) *for more detailed instructions.* |

**On top of page 290 of the 2019-2020 Graduate Bulletin:**

**AGEC 6253.** Applied **Econometrics** Application of regression analysis on spatial, time-series**,** and cross-sectional data to empirically investigate agricultural production, agribusiness management, and environmental components of agriculture~~verify economic theory~~. Various estimation ~~techniques~~ ~~including regression and simultaneous equation models, serial correlation, heteroscedasticity, panel data and instrumental estimation~~ methods are discussed.

**Agricultural Education (AGED)**