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

**Course Revision Proposal Form**

**[x] Undergraduate Curriculum Council**

**[ ] 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.

|  |  |
| --- | --- |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date… **Department Curriculum Committee Chair** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…  **COPE Chair (if applicable)** |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date… **Department Chair:** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…  **Head of Unit (If applicable)** |
| J. Kim Pittcock 2/27/2020 **College Curriculum Committee Chair** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…  **Undergraduate Curriculum Council Chair** |
| Donald Kennedy 2/27/2020 **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)

John Nowlin, jnowlin@astate.edu, (870) 972-3468

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

Fall 2020

3. Current Course Prefix and Number

AGST 4543

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 – [N/A] 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

Shows as two names in the bulletin:  
Advanced GIS for Agriculture and Natural Resources and Advanced Geographic Information Systems

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

If yes, include new Course Title Below.

Understanding Geographic Information Systems

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).*

Understanding GIS

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

Enter text...

5. – **[NO ]** Request for Course Description Change.

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

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** Are there any prerequisites?
   1. If yes, which ones?

Enter text...Why or why not?

Enter text...

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

7. – [**YES** ] Request for Course Frequency Change(e.g. Fall, Spring, Summer). *Not applicable to Graduate courses.*

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

Change to Fall

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. **YES** Is this course dual listed (undergraduate/graduate)?

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

AGST 5543 Understanding Geographic Information Systems

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** – N/A 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. **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.*

**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.*

AGST 4543 is being renamed to align with the Graduate course AGST 5763 Understanding Geographic Information Systems, which is in the process of being renumbered to AGST 5543.

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

The material covered in this course is not advanced; it is intermediate. It has been taught with AGST 5763 already. They are the same course so we are aligning them with the same names and course numbers for a 4000/5000 course alignment.

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?

Enter text...

21. 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.

**Course-Level Outcomes**

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

**Bulletin Changes**

|  |
| --- |
| **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.* |

Multiple bulletin changes associated with an AGST program realignment are being submitted. Below is the primary program for these changes which are on Pgs. 108, 116, 386, 388, & 420 of the 2019-2020 Undergraduate Bulletin. Other changes are addressed in numerous proposals submitted concurrently.

\*Due to the high number of concurrent changes, for clarity, these revisions are highlighted at the end on the bulletin page(s)

pg 108

...

**Major in Agricultural Studies  
Bachelor of Science in Agriculture Emphasis in Agricultural Systems Technology**

A complete 8-semester degree plan is available at [https://www.astate.edu/info/academics/degrees/](http://www.astate.edu/info/academics/degrees/)

|  |  |
| --- | --- |
| **University Requirements:** |  |
| See University General Requirements for Baccalaureate degrees (p. 42) |  |
| **First Year Making Connections Course** | **Sem. Hrs.** |
| AGRI 1213, Making Connections in Agriculture | **3** |
| **General Education Requirements:** | **Sem. Hrs.** |
| See General Education Curriculum for Baccalaureate degrees (p. 78)  **Students with this major must take the following:**  *MATH 1023, College Algebra or MATH course that requires MATH 1023 as a prerequisite CHEM 1013 AND 1011, General Chemistry I and Labratory* ***OR*** *CHEM 1043 and CHEM 1041, Fundamental Concepts of Chemistry and Labratory*  *BIOL 1003* ***AND*** *BIOL 1001, Biological Science and Laboratory*  *COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)* | **35** |
| **Agriculture Core Courses:** | **Sem. Hrs.** |
| (See Beginning of Agriculture Section) | **24** |
| **Major Requirements:** | **Sem. Hrs.** |
| See emphasis area below. |  |
| **Emphasis Area (Agricultural Systems Technology):** | **Sem. Hrs** |
| *Select one of the following:*  AGEC 3013, Agricultural Records  AGST 3503, Geospatial Data Applications | 3 |
| AGRI 4223, Agriculture and the Environment | 3 |
| AGST 3543, Fundamentals of GIS/GPS | 3 |
| AGST 4003, Modern Irrigation Systems | 3 |
| AGST 4022, Irrigation Technology Tools | 2 |
| AGST 4543, ~~Advanced Geographic Information Systems~~ **Understanding Geographic Information Systems** | 3 |
| *Select one of the following:*  AGST 4501, Agricultural Decision Analysis **OR**  AGST 4511, Unmanned Aircraft Sytems | 1 |
| AGST 4773, Remote Sensing | 3 |
| AGST 4843, Agricultural Systems Technology Capstone | 3 |
| *Select one of the following:*  BIO 3023, Principles of Ecology **OR**  GEOG 3723, Introduction to Physical Geograph, Weather, and Climate **OR**  GEOG 4113, Water Resources Planning **OR**  GEOG 4633, Climatology | 3 |
| *Select one of the following:*  BIO 1503 AND 1501, Biology of Plants and Laboratory **OR**  GEOL 1003 AND 1001, Environmental Geology and Laboratory **OR**  PHSC 1014, Energy and the Environment **OR**  PHSC 1203 AND 1201, Physical Science and Laboratory **OR**  PHYS 1103 AND 1101, Introduction to Space Science and Laboratory **OR**  PHYS 2054, General Physics I | 4 |

pg 109

...

|  |  |
| --- | --- |
| *Select one of the following:*  CIT 1503, Microcomputer Applications **OR**  CS 1013, Introduction to Computers | 3 |
| GEOG 2613, Introduction to Geography | 3 |
| MATH 1033, Plane Trigonometry **OR**  **MATH 1054, Precalculus Mathematics OR**  **any MATH course that requires MATH 1023 or MATH 1054 as a prerequisite** | 3 |
| *Select two of the following:*  PSSC 3313, Plant Disease Management **OR**  PSSC 3323, Weeds and Weed Control **OR**  PSSC 4713, Soil Quality Assessment and Interpretation **OR**  PSSC 4804, Principles of Crop Production **OR**  PSSC 4813, Soil Fertility | 6-7 |
| TECH 3803, Electrical Systems | 3 |
| Upper-level elective in **AGEC, AGED,** AGST, AGRI, **GEOG, HORT,** PSSC | 8-9 |
| **Sub-total** | **58** |
| **Total Required Hours:** | **120** |

pg 116

…

**Minor in Precision Agriculture**

***Agricultural Systems Technology Majors may not minor in Precision Agriculture***

|  |  |
| --- | --- |
| **Required Courses:**  Students must maintain a minimum GPA of 3.0 and a grade of at least a “C” for each course in the minor. | **Sem. Hrs.** |
| AGST 3503, Geospatial Data Applications | 3 |
| AGST 3543, Fundamentals of GIS/GPS | 3 |
| AGST 4003, Modern Irrigation Systems | 3 |
| AGST 4022, Irrigation Technology Tools | 2 |
| AGST 4543, ~~Advanced Geographic Information Systems~~ **Understanding Geographic Information Systems** | 3 |
| *Select one of the following:*  AGST 4501, Agricultural Decision Analysis **OR**  AGST 4511, Unmanned Aircraft Sytems | 1 |
| AGST 4773, Remote Sensing | 3 |
| **Total Required Hours:** | **18** |

pg 385&386

…

**Major in Environmental Studies**

#### Bachelor of Arts

A complete 8-semester degree plan is available at [https://www.astate.edu/info/academics/degrees/](http://www.astate.edu/info/academics/degrees/)

|  |  |
| --- | --- |
| **University Requirements:** |  |
| See University General Requirements for Baccalaureate degrees (p. 42) |  |
| **First Year Making Connections Course:** | **Sem. Hrs.** |
| BIO 1013, Making Connections - Biology | **3** |
| **General Education Requirements:** | **Sem. Hrs.** |
| See General Education Curriculum for Baccalaureate degrees (p. 78)  **Students with this major must take the following:**  *MATH 1023 College Algebra*  *CHEM 1043* ***AND*** *1041, Fundamental Concepts of Chemistry and Laboratory* ***OR*** *PHSC 1203* ***AND*** *1201, Physical Science and Laboratory*  *BIO 1503* ***AND*** *1501, Biology of Plants and Laboratory*  *COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)* | **35** |
| **Language Requirement:** | **Sem. Hrs.** |
| *A student must complete the foreign language requirements before being considered a En- vironmental Studies Major. (Refer to Department of Biological Sciences Foreign Language Requirement).* |  |
| **Major Requirements:** | **Sem. Hrs.** |
| BIOL 1063, People and the Environment | 3 |
| BIO 1303 **AND** 1301, Biology of Animals and Laboratory | 4 |
| BIO 3023, Principles of Ecology | 3 |
| BIO 3673, Human Dimensions of Natural Resources | 3 |
| BIO 4613, Conservation Biology | 3 |
| BIO 4643 AND 4641, Environmental Biology and Laboratory | 3 |
| BIO 4203, Biometry | 3 |
| BIO 4021, Biological Seminar | 1 |
| PSSC 2813, Soils | 3 |

|  |  |
| --- | --- |
| **Choose any of the courses below among the five focus areas. Students can choose to stay within one focus area, or may take courses from any focus area depending on interest and career aspirations:**  **Biology Focus**  BIO 3033, Evolution  BIO 3313 AND 3311, Economic Entomology and Laboratory BIO 4333, Marine Biology  BIO 4373 AND 4371, Animal Ecology and Laboratory BIO 4813, Curation of Collections  BIO 4823, Natural History Collections Research Design  **Agriculture / Sustainability Focus**  AGRI 4223, Agriculture and the Environment AGRI 4433, Organic Agriculture Production  CE 3263, Introduction ot Environmental Engineering GEOG 4613, Conservation of Natural Resources HORT 3253, Urban Forestry  PSSC 2811, Soils Laboratory PSSC 4813, Soil Fertility  RET 3113, Fundamentals and Applications of Renewable Energy RET 4023, Advanced Bioenergy  RET 4113, Advanced Renewable Energy Systems RET 4123, Energy Conservation and Efficiency  **Geospatial Focus**  AGST 3543, Fundamentals of GIS/GPS  AGST 4543, ~~Advanced Geographic Information Systems~~ **Understanding Geographic Information Systems**  AGST 4773, Remote Sensing  GEOG 3603, World Regional Geography  GEOG 3723, Introduction to Physical Geography, Weather, and Climate  **Economic / Policy / Social Focus**  CRIM 2043, Community Relations in the Administration of Justice POSC 3503, Principles of Public Administration  POSC 3513, Public Budgeting Process POSC 4143, Public Opinion and Public Policy POSC 4503, Public Policy, Politics and Power  POSC 4513, Disaster Response Operation Management POSC 4523, Public Personnel Administration  POSC 4533, Environmental Law and Administration  **Communication Focus**  MDIA 4003, Communications Law and Ethics COMS 3243, Principles of Persuasion COMS 3253, Principles of Listening  COMS 4253, Intercultural Communication COMS 4263, Organizational Communication COMS 4773, Conflict Resolution  STCM 4023, Public Opinion, Propaganda and the Mass Media STCM 4603, Crisis Communication  STCM 2143, Strategic Writing  STCM 3043, Principles of Strategic Communication STCM 3143, Strategic Writing II  STCM 4073, Strategic Communication Law and Ethics STCM 4213, Social Media in Strategic Communication STCM 4503, Seminar in Non Profit Communication STCM 4763, Strategic Communication Campaigns | 42 |
| **Sub-total** | **69** |
| **Electives:** | **Sem. Hrs.** |
| Electives | **13** |
| **Total Required Hours:** | **120** |

pg 387&388

…

# Major in Environmental Science

#### Bachelor of Science

A complete 8-semester degree plan is available at [https://www.astate.edu/info/academics/degrees/](http://www.astate.edu/info/academics/degrees/)

|  |  |
| --- | --- |
| **University Requirements:** |  |
| See University General Requirements for Baccalaureate degrees (p. 42) |  |
| **First Year Making Connections Course:** | **Sem. Hrs.** |
| BIO 1013, Making Connections - Biology | **3** |
| **General Education Requirements:** | **Sem. Hrs.** |
| See General Education Curriculum for Baccalaureate degrees (p. 78)  **Students with this major must take the following:**  *Students with this major must take the following:*  *MATH 2204, Calculus I*  *CHEM 1013* ***AND*** *1011, General Chemistry I and Laboratory BIO 1503* ***AND*** *1501, Biology of Plants and Laboratory*  *COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)* | **36** |
| **Language Requirement:** | **Sem. Hrs.** |
| *A student must complete the foreign language requirements before being considered a En- vironmental Science Major. (Refer to Department of Biological Sciences Foreign Language Requirement).* |  |
| **Major Requirements:** | **Sem. Hrs.** |
| BIOL 1063, People and the Environment | 3 |
| BIO 1303 **AND** 1301, Biology of Animals and Laboratory | 4 |
| BIO 2013 **AND** 2011, Biology of the Cell and Laboratory | 4 |
| BIO 3023, Principles of Ecology | 3 |
| BIO 3673, Human Dimensions of Natural Resources | 3 |
| BIO 4021, Biological Seminar | 1 |
| BIO 4643 **AND** 4641, Environmental Biology and Laboratory | 4 |
| CHEM 1023 **AND** 1021, General Chemistry II and Laboratory | 4 |
| CHEM 3103 **AND** 3101, Organic Chemistry I and Laboratory | 4 |
| CHEM 3113 **AND** 3111, Organic Chemistry II and Laboratory | 4 |
| MATH 2214, Calculus II | 4 |
| PHYS 2034, University Physics I | 4 |
| PHYS 2044, University Physics II | 4 |
| STAT 3233, Applied Statistics I | 3 |

# Major in Environmental Science (cont.)

#### Bachelor of Science

A complete 8-semester degree plan is available at [https://www.astate.edu/info/academics/degrees/](http://www.astate.edu/info/academics/degrees/)

|  |  |
| --- | --- |
| **Choose any of the courses below among the five focus areas. Students can choose to stay within one focus area, or may take courses from any focus area depending on interest and career aspirations:**  **Biology Focus**  BIO 3013 AND 3011, Genetices and Laboratory BIO 3033, Evolution  BIO 4104, Microbiology BIO 4333, Marine Biology  BIO 4373 AND 4371, Animal Ecology and Laboratory BIO 4623, Environmental Microbiology  BIO 4633, Environmental Toxicology Mechanisms and Impacts  **Chemistry Focus**  CHEM 3054, Quantitative Analysis  CHEM 3153, Survey of Physical Chemistry CHEM 4043, Environmental Chemistry CHEM 4243, Biochemistry  CHEM 4241, Biochemistry Laboratory  **Agriculture / Sustainability Focus**  AGRI 4223, Agriculture and the Environment  CE 3263, Introduction ot Environmental Engineering GEOG 4613, Conservation of Natural Resources PSSC 4813, Soil Fertility  **Geospatial Focus**  AGST 3543, Fundamentals of GIS/GPS  AGST 4543, ~~Advanced Geographic Information Systems~~ **Understanding Geographic Information Systems**  AGST 4773, Remote Sensing  GEOG 3723, Introduction to Physical Geography, Weather, and Climate  **Economic / Policy / Social Focus**  ECON 4363, Global Environmental Policies GEOG 4113, Water Resource Planning PHIL 4733, Environmental Ethics  POSC 4533, Environmental Law and Administration | 19 |
| **Sub-total** | **72** |
| **Electives:** | **Sem. Hrs.** |
| Electives | **9** |
| **Total Required Hours:** | **120** |

pg 420

…

### Agricultural Systems Technology (AGST)

**AGST 2003. Intro to Agricultural Systems Technology** Introduction to physical concepts relevant to different agricultural systems: applied mechanics, agricultural equipment technology, agricultural power trains and machinery management, efficiency and precision. Prerequisites: CS 1013 or CIT 1503, ENG 1013, MATH 1023 or higher. Fall.

**AGST 3503. Geospatial Data Applications** Basic understanding and utilization of software applications to manage geospatial and tabular data, including text editors, spreadsheets, databases and geodatabases for data: collection, cleaning, joining, filtering, summarization, visualization and unit conversion. Prerequisite: AGST 2003 **or CE 2223** ~~PSSC 2813~~. Fall, Spring.

**AGST 3543. Fundamentals of GIS/GPS** Geospatial data acquisition, mapping, and interpre- tation for human-environment interactions using geographic information systems and the global positioning system. Prerequisites: COMS 1203, ENG 1013, MATH 1023 or higher; Prerequisite or corequisite: AGEC 3013 or AGST 3503 or BIO 3023. Fall, Spring.

**AGST 4003. Modern Irrigation Systems** Methods, equipment, current issues and future direc- tions of irrigation, irrigation design and scheduling, drainage systems, irrigation measurements, performance evaluation, and impact on productive and sustainable agriculture. Two hours lecture and two hours lab weekly. Dual listed with AGST 5003. Prerequisites: AGST 2003; PSSC 2813. Spring.

**AGST 4022. Irrigation Technology Tools** Technical tools and software related to irrigation system hydraulic design and management. Dual listed with AGST 5022. Prerequisites: AGST 3543, AGST 4003. Fall.

**AGST 4501. Agricultural Decision Analysis** Hands-on experience with cloud/desktop software, spatial algorithms and image processing of georeferenced data obtained from diverse sources, such as human scouts, ground and equipment sensors, and unmanned aerial systems. Dual listed with AGST 5501. Prerequisite: AGST 3543 with a grade of B or better. Fall.

**AGST 4511. Unmanned Aircraft Systems** Software and mobile applications for designing flight missions, collecting data, and analyzing/interpreting imagery for agricultural practices. Intended to prepare students for the Federal Aviation Administration (FAA) remote pilot license exam. Dual listed with AGST 5511. Prerequisites: AGST 3543, AGST 4773. Fall.

**AGST 4543. ~~Advanced GIS for Agriculture and Natural Resources~~ Understanding Geographic Information Systems** Methods, concepts, software, analysis and modeling of geospatial data using raster and vector data models for human- environment interactions using geographic information systems (GIS). **Dual listed with AGST 5543**. Prerequisite, AGST 3543 with a grade of B or better. ~~Spring~~ **Fall**.

**AGST 4773. Remote Sensing** Passive and active means of aerial and satellite image acquisition, processing, analysis, and interpretation for research and decision making in agricultural, environ- mental, and natural resource applications. Prerequisite, AGST 3543 with a grade of B or better. ~~Fall~~ **Spring**.

**AGST 4843. Agricultural Systems Technology Capstone** Design of modern geospatial solu- tions for problems related to agriculture, the environment, and natural resources. Restricted to Agricultural Studies majors. Prerequisites: AGST 3503, AGST 4543, AGST 4773 **Fall,** Spring.

**AGST 489V. Special Problems in Agricultural Systems Technology** Individualized instruction and/or projects for advanced students. Instructor permission required. Fall, Spring, Summer.