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| CIP Code:  |  |
| Degree Code: |  |

**Bulletin / Banner Change Transmittal 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 for inclusion in curriculum committee agenda.

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**Department Curriculum Committee Chair** |

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**COPE Chair (if applicable)** |
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| Donald Kennedy | 3/5/2019 |

**Department Chair:**  |

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**Head of Unit (If applicable)**   |
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| Steven Green | 3/1/2019 |

**College Curriculum Committee Chair** |

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**Undergraduate Curriculum Council Chair** |
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| Tim Burcham | 3/8/2019 |

**College Dean** |

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**Graduate Curriculum Committee Chair** |
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**General Education Committee Chair (If applicable)**   |

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**Vice Chancellor for Academic Affairs** |

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

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

**2.Proposed Change**

Update and add graduate AGST classes associated with an Agricultural Systems Technology realignment.

**3.Effective Date**

Fall 2019

**4.Justification –** *Please provide details as to why this change is necessary.*

Note: Multiple bulletin changes associated with an AGST program realignment are being submitted.

**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.* |

Multiple bulletin changes associated with an AGST program realignment are being submitted. Below is the primary program for these changes which is Pgs. 295 & 296 of the 2018-2019 Graduate Bulletin. Other changes are addressed in numerous proposals submitted concurrently.

## Pgs 295 & 296

## …

**Agricultural Systems Technologies (AGST)**

**AGST 5003. Modern Irrigation Systems** ~~The course will cover m~~ Methods, equipment, current issues and future directions of irrigation, irrigation design and scheduling, drainage systems, irrigation measurements, performance evaluation, and impact on productive and sustainable agriculture. ~~Prerequisite, MATH 1033 and PSSC 2813.~~ Dual listed as AGST 4003.

**AGST 501V~~3~~. Special Topics Graduate Seminar** Contemporary topics in Agricultural Systems Technology. **~~Precision Application Technology~~** ~~Techniques in soil and crop homogeneity detection and variable-rate precision application of crop inputs to increase productivity and enhance environmental sustainability. Dual listed with AGST 401~~**~~V~~**~~3.~~ **~~Fall,~~** ~~Spring~~**~~, Summer.~~**

***AGST 5022. Irrigation Technology Tools*** *Technical tools and software related to irrigation system hydraulic design and management. Dual listed with AGST 4022. Prerequisites: AGST 5003 or AGST 4003 AND AGST 5763 or AGST 4543.*

***AGST 5501. 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 4501. Prerequisite: AGST 5763 or AGST 4543.*

***AGST 5511. 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 4511. Prerequisites: AGST 5763 or AGST 4543 AND AGST 5773 or AGST 4773.*

***AGST 5763 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).*

**AGST 5773. Remote Sensing** ~~The course will cover the image acquisition and image processing methods using ERDAS Imagine software as the analytical assessment package.~~ Passive and active means of aerial and satellite image acquisition, processing, analysis, and interpretation for research and decision making in agricultural, environmental, and natural resource applications. Dual listed with AGST 4473.

**AGST 6543. Geospatial Data and Models ~~Advanced Geographic Information Systems~~** ~~Advanced GIS using Arc GIS software as the analytical assessment package~~. Geospatial data frameworks and methods including site suitability and hydrological modeling. Prerequisite~~s: PSSC 3543 Fundamental of GIS and GPS or instructors consent.~~*AGST 5763 or AGST 4543.*

***AGST 6843 Applied Geospatial Research*** *Design and execute applied geospatial research into Human-Environment Interactions. Prerequisites: AGST 5773 or AGST 4773; AGST 6543, or instructor approval.*

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