Proposal for New Course

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| **Home Department and Contact Information** | |
| Home Department: Geography | Date: 1 October 2020 |
| Home Department Chair: Dr. Judy Otto | Extension: 4770  Email: jotto@framingham.edu |
| Home Department  Curriculum Committee Chair:  *If not home department chair* | Extension:  Email: |
| Log Originator: Dr. Dave Merwin  *If not home department chair or home department curriculum committee chair* | Extension: 4771  Email: Dmerwin@framingham.edu |
| **Course Information and Description** | |
| Proposed Course Number and Title: ENVS 333: Digital Field Work Drones, Data and AI | |
| Course Description  *Please provide a full description, including prerequisite(s) and notes. Use present tense and, except for the opening sentence, use complete sentences; the opening sentence should complete “This course is….”*  An innovative approach to combining traditional environmental field methods with the power UAVs, thermal cameras, GIS software, and open-source machine learning to estimate species populations in the field. Students will learn and practice the key integration and operational steps needed to conduct field-based population studies using modern drone technology. Students will use flight planning software to plan surveys optimized to boundary conditions; use the open source Python language, implemented through Jupyter notebooks, to train machine-learning software; translate the results to a spatial data management system; and communicate the results through written and oral work.  Prerequisites: ENVS 101 or BIOL 160 or CSCI 130 or GEOG 214 or permission of instructors | |
| Prior Approval   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | Has this course been taught with prior one-time approval? | |  |  |  |  | | --- | --- | --- | --- | | **X** | Yes |  | No | | Semester: | Spring 2020 | | If so, did it have General Education status? | |  |  |  |  | | --- | --- | --- | --- | |  | Yes\* | **X** | No | |  | |  |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | \*One-Time Subdomain: |  | \*One-Time Learning Objectives: |  | | |
| **Rationale** | |
| *Please provide language that clearly explains the purpose for the new course and, if applicable, how the course differs from any similar courses offered by other departments. Include the date of department curriculum committee approval, if available.*  Justifications include the scientific topicality of the subject matter and the course’s explicit addressing of FSU’s strategic goal #1(Provide high quality, highly relevant education, specifically parts c, e, f); and goal #6 (Provide technical infrastructure for academic success). Further, we explicitly integrate collaborative undergraduate research, using interactive computational notebooks to naturally increase collaboration and construction of e-portfolios. The Commonwealth has tasked a committee to evaluate the use of open educational resources on State University campuses; most of the software we intend to use is “open source” and hence directly applicable to this state-led initiative. | |
| **Course Status** | |
| *Select all that apply.*   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | Core Requirement for Major/Concentration | **X** | Service Course for Non-Majors | | |  |  |  |  | | |  | Choose List Addition for Major/Concentration |  | Prerequisite for Another Course | | |  |  |  |  | | | **X** | Major/Concentration Elective |  | Apply Retroactively to Existing Majors/Minors | | |  | |  | General Education Status Requested\* | | |   *\*If General Education status is being requested, complete the General Education Status Supplementary Form and submit a sample course syllabus and other supporting material(s) as necessary.* | |
| **Catalog Changes** | |
| *Provide information about catalog changes related to the addition of this course. Include information regarding where the course information should be added to the catalog; provide page number(s) from current catalog, if available, as reference. Catalog changes regarding General Education should be noted on the “General Education Status Supplementary” form.*  Department   |  |  | | --- | --- | | Add to the list of course descriptions on page(s): | Geography |  |  |  | | --- | --- | | Add the number and title to the list(s) of courses (e.g., core major requirements\*; concentration requirements\*; choose lists) on page(s): *Please specify which lists.* |  |   \* *Note that new courses cannot be added to programs using just this form if the addition would change the number of courses or other descriptive information in the program. If that is the case, a program change log should also be submitted.*  Other:  University-Wide   |  |  | | --- | --- | | Add the number and title to the list(s) of courses on page(s): *Please specify which lists.* |  |   Other: | |
| **Notifications** | |
| Home Department and Dean Acknowledgements  *Anyone submitting a log to the University Curriculum Committee is required to notify the home department’s chair, the chair or designee of the home department’s curriculum committee, and one of the academic deans (home department preferred) for their acknowledgements before the log goes to the All University Committee for distribution to UCC.*  *Home departments and deans have two weeks to acknowledge a log after which time the log without acknowledgement may still go to AUC for distribution to UCC. Note that the home department will be invited to subcommittee and full committee discussions of the log, whether or not they submit the log themselves and whether or not they acknowledge the log.*   |  |  | | --- | --- | | Home Department(s): | Geography | |  |  | | Date of Notification\*: |  |  |  |  | | --- | --- | |  | Acknowledgement\*\* by Home Department Chair | |  |  | |  | Acknowledgement\*\* by Home Department Curriculum Committee Chair or Designee | |  |  | |  | Acknowledgement\*\* by Academic Dean *(Home Department Dean Preferred)* |   *\*Submitters should submit a copy (PDF preferred) of the email notification message(s) with the log submission to AUC. If home departments are submitting the log (and thus signing this form), no email notification for the home department’s chair or curriculum committee chair or designee is necessary, but email notification to the dean is. There is no need to submit a record of acknowledgement, but submitters are advised to keep records of correspondence regarding these logs.*  *\*\* Only check these boxes if acknowledgement has been received. Home departments submitting logs for their own courses/programs should check these boxes, presuming that the departmental curriculum committee chair and department chair have reviewed the log.* | |
| Affected Departments/Programs  *Persons submitting logs to the University Curriculum Committee are required to notify the chair of another department/program if the log*   * *is similar to an existing course or program;* * *includes subject matter traditionally offered by another department;* * *adds, changes, or removes a prerequisite, co-requisite, or recommended course for a course in another department;* * *adds, changes, or removes a recommended or required course for a major, minor, or concentration of another department* * *affects a program that must meet external certification, licensing, or accreditation.*   *Affected departments must have the opportunity to respond to the log, so UCC review will not occur until affected departments have been notified and either (1) they have acknowledged the log or (2) the two-week post-notification period has passed. The chair of any affected department/program will be notified when the log is scheduled for review by the designated UCC subcommittee and by the full University Curriculum Committee, unless the two-week period has passed without response or unless otherwise indicated in Log Acknowledgements forum on Blackboard.*   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | Does this new course affect another department/program? | |  |  |  |  | | --- | --- | --- | --- | |  | Yes\* |  | No | |   \*If yes, the chair of each affected department must be notified via the Log Acknowledgements forum on Blackboard.  *Note: A department chair’s acknowledgement of receipt of notification of this log via a Log Acknowledgements forum on Blackboard does not indicate endorsement of the proposal.*  *Indicate the department(s)/program(s) below whose chair must be notified via Blackboard.*   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | |  | Accounting, Economics, and Finance |  | Fashion Design and Retailing |  | Mathematics | |  |  |  |  |  |  | |  | Art and Music |  | Food and Nutrition |  | Nursing | |  |  |  |  |  |  | | x | Biology | x | Geography | x | Physics and Earth Science | |  |  |  |  |  |  | |  | Chemistry and Food Science |  | Global Studies |  | Political Science | |  |  |  |  |  |  | |  | Communication Arts |  | History |  | Psychology and Philosophy | |  |  |  |  |  |  | | x | Computer Science |  | Management and Business & IT |  | Sociology | |  |  |  |  |  |  | |  | Education |  | Marketing |  | World Languages | |  |  |  |  |  |  | |  | English |  |  |  |  |      |  |  | | --- | --- | | Date(s) of Notification\*: |  |   *\* Dates of notification will be listed in the Log Acknowledgements section of Blackboard. Subcommittee chairs will transfer those dates here.* | |

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| Larry McKenna |  | C:\Users\lmckenna1\Documents\W-9, Signature, etc\signature.png |
| Typed Name of Person Submitting the Log |  | Signature of Person Submitting the Log |

**For UCC use only**

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| **Primary Reviewing Subcommittee** |  | A |  | B |  | C |  | Notifications Verified | Date: |

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| Log Reviewed/Revised | Date: | Recommendation: |  | Support |  | Oppose |

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| **Subcommittee D General Education Review** | Date: |  | NA |

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| Recommendation (General Education Request ONLY): |  | Support |  | Oppose |

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| **Reviewed/Revised by UCC** | Date: |

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| Recommendation |  | Support |  | Oppose |

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|  | Licensure/Accreditation Issue |

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|  | Contact Registrar (add notes below) |

UCC Notes: