

Proposal for Ethics and Integrity Component in Graduate Education Department of Fish and Wildlife Conservation

Required Topics:

- 1) Plagiarism and other violations of the Graduate Honor Code
- 2) Proper use of professional conventions in citation of existing research and scholarship, accurate reporting and ownership of findings, and acknowledgement of contributions to the work
- 3) Ethical standards in teaching, mentoring, and professional activities
- 4) Available avenues for reporting alleged misconduct

Optional Topics:

- Appropriate research protocols involving human and animal subjects; Institutional Review Board (IRB) and/or Institutional Animal Care and Use Committee (IACUC) certification
- Acceptable language re-use (sentence templates) for authors whose first language is not English

The Graduate Program in Fish and Wildlife Conservation will use three to four outlets to deliver appropriate instruction on the four required, and several optional, topics. The first, the GTA workshop, will only be required of those that will be teaching or serving as teaching assistants.

1. *GTA Workshop taught by the Virginia Tech Graduate School.* All graduate students that will be teaching or serving as teaching assistants will be required to take this workshop for credit (GRAD 5004 (P/F; 1C) during the first fall semester of their graduate program. Students beginning their studies during the spring semester will take the workshop during the following fall semester. This workshop offers a variety of topics on ethical matters related to teaching, especially honesty. Attendance is monitored, and a specified number of sessions on certain topics is required for a Pass.

2. *Departmental New Student Orientation.* All graduate students attend a required departmental orientation in the semester in which they begin their graduate program. At this orientation, the logistics of life as a graduate student are covered and the graduate program coordinator presents information on expectations for completing a working plan, a plan of study, and selecting a committee. The graduate coordinator also will present information on the Graduate Honor Code and available avenues for reporting alleged misconduct by fellow students and faculty as well as how to address conflict with advisors or committee members appropriately. Lastly, each student will be briefed on IACUC, IRB, and other common state and federal permitting issues and required to discuss with their advisors which permits will be needed and whether the formal training for IACUC and IRB is required for their research. If it is required, they must register for and complete specific online training as required by Virginia Tech IACUC and IRB.

3. *FIW 5004 Fall Graduate Seminar with required completion of the CITI Modules.* All graduate students will be required to take this seminar for credit (P/F; 1C) during the

first fall semester of their graduate program. Students beginning their studies during the spring semester will take the seminar during the following fall semester. Graduate Seminar meets weekly and consists of presentations by resident faculty, graduate students, and invited guest speakers. At least two seminar sessions, and associated out-of-class assignments, will be devoted entirely to the topics of ethics and integrity of graduate education and coordinated by the graduate program director. Faculty will make presentations followed by discussions of the topic. Graduate Seminar will be used to follow up on information provided in the GTA Workshop and Collaborative Institutional Training Initiative (<https://www.citiprogram.org/>) (CITI) modules and discuss the topics as they specifically relate to graduate education in Fish and Wildlife Conservation. As preparation for seminar discussion, Fish and Wildlife Conservation graduate students will be required to complete the full CITI course on Responsible Conduct of Research which is estimated to take 2-3 hours of effort. All modules contain a quiz after completion, with passing considered to be 80% correct answers.

4. Completion of Working Plan for Research within 1 year of enrollment: In the first year of graduate studies, before the beginning of any field work, students are required to complete a detailed working plan for approval by their research committee. In this working plan, students conduct a detailed literature review of relevant, up-to-date research (following accepted conventions in citations) as well as provide detailed methods and analyses to be used and a timeline for completion.

The details of instruction for each of the four required topics are presented below.

1. Plagiarism and other violations of the Graduate Honor Code

VT GTA Workshop—for students that will teach or TA
CITI Responsible Conduct of Research Course, especially Case Study –
Plagiarism
Department Graduate Orientation
FIW 5004 Graduate Seminar
Working Plan Completion

2. Proper use of professional conventions in citation of existing research and scholarship, accurate reporting and ownership of findings, and acknowledgement of contributions to the work

CITI Responsible Conduct of Research Course, especially units on 1) Data Acquisition, Management, Sharing, and Ownership, 2) Data Management “Who Owns Research Data?,” and 3) Authorship
FIW 5004 Graduate Seminar
Working Plan Completion

3. Ethical standards in teaching, mentoring, and professional activities

VT GTA Workshop—for students that will teach or TA

FIW 5004 Graduate Seminar
Department Graduate Orientation

4. Available avenues for reporting alleged misconduct

VT GTA Workshop—for students that will teach or TA
Department Graduate Orientation
FIW 5004 Graduate Seminar

5. Optional A: Appropriate research protocols involving human and animal subjects;
Institutional Review Board and/or Institutional Animal Care and Use Committee
certification

Department graduate orientation and discussion with advisors and research
committee

Optional B: Acceptable Language Re-Use (sentence templates) for English as an
Additional Language (EAL) students

Departmental graduate seminar (FIW 5004) will include discussion of techniques
for learning discipline-specific writing styles, including the use of sentence
templates for EAL students. This discussion will rely on Section 17.3 of Cargill
& O'Connor's 2nd edition (2013) of Writing Scientific Research Articles.