

Scholarly Ethics and Integrity Plan for the Department of Statistics

In accordance with Resolution 2012-13B, the following is proposed by the Department of Statistics.

Required topics covered:

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
5. Data ethics (optional topic)
6. Appropriate research protocols involving human and animal subjects (optional topic)

Plan:

In the week before the first day of class in the fall semester, first year graduate students are required to attend an orientation session where topics 1 and 4 above are discussed. During this session, a representative from the Graduate Honor System will also present an overview of the Virginia Tech Graduate Honor System.

Early every fall semester, the Department of Statistics presents several hour-long seminars, during our Students Outreach Seminar (SOS) series, where faculty members give short presentations of their research interests and activity. All first year graduate students are required to attend these presentations as they help new students find dissertation advisors. Other topics such as how to conduct research in statistics and job searching strategies are also discussed. To fulfil the ethics and integrity requirements, we plan to seamlessly integrate the required topics into these seminars.

Additionally, all first year students are required to take STAT 5024, Effective Communication in Statistical Consulting. During this course, students are taught the art of statistical collaboration in helping solve the research questions of nonstatisticians. Included along with such topics as proper design for experiments and proper analysis of data are such issues as data ethics, plagiarism, proper citation, and professional integrity.

All TAs who teach in the Department of Statistics are required to attend our TA Teacher Workshop. This workshop meets four times per semester to discuss all aspects of teaching and address all TA Teacher questions. Topics discussed include creating a syllabus, creating lectures, how to properly lecture, creating tests, proper use of their assigned grader, assigning course grades, and issues involving ethics, plagiarism, and integrity (topic 3).

To be more specific, we propose the following:

(1). All new graduate students in the Statistics department are required, in the week before the fall semester begins, to attend the new student orientation. We already discuss topics 1 and 4 at this orientation but we will now do so in more depth. Topics 1 and 4 are immediately relevant to new students. Appropriate supporting materials will be distributed.

(2). During our SOS series, we will have a detailed focus on topics 1 and 4. Sessions will be given by faculty members. Topics 2 and 3 will be also discussed.

(3). More detailed discussions on topics 2, 3, 5, and 6 will be presented during STAT 5024. Each student in the class will be required to write a report on a collaboration project where issues involving topic 2 can be demonstrated and graded by the instructor. Topic 5, on the ethics of data acquisition, interpretation, and dissemination, forms a backdrop for the entire course, and will continue to be discussed in detail in STAT 5024.

(4). The primary national statistics society, the American Statistical Association, has a website (<http://stattrak.amstat.org/2011/07/01/prof-ethics-advice/>) devoted to ethics and integrity. This will be required reading as part of STAT 5024.

(5). There will be an item on the Graduate Student Annual Report which will indicate whether the student has met the ethics and integrity requirement. Meeting this requirement will be required before any degree is conferred.

Verification:

Every student receiving either the M.S. or the Ph.D. degree must take a final exam. This exam is administered by the student's Graduate Committee. It will now become department policy that all final exams require the student to address questions on ethics and integrity. The Graduate Program Committee will be in charge of forming relevant questions and discussion topics. Any student who fails this exam will be notified of their deficiencies and required to repeat the exam after the appropriate time required by the Graduate School has elapsed.

Other optional topics:

The only relevant optional topics for students in Department of Statistics are:

- (i). Fair use of publications and software;
- (ii). Guidelines for determination of authorship.

In Statistics, the topic (ii), determination of authorship, is a common issue. Students will receive the training from their dissertation advisors. The topic (i) on fair use is implicitly addressed in topic 2 and will be integrated with that topic.