412:700 – Forensic Science Research

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Course Description

Forensic Science Research 700 is the start of the Capstone Project for students in the MSFS program. Typically, this phase of the project is conducted over the summer months (June-August). It is focused on continued literature review and the start of experimental activities. Students in this phase of research will need regular contact with their supervisors as they transition into independent researchers.

By the end of the course students will have:

- Completed the bulk of their literature review;
- Applied for any grants to fund their project (such as the Graduate Research fund or the Acorn/Lucas grants);
- Completed any training or skills development required by the project;
- Purchased any supplies required by the project;
- Completed at least half of any lab-based or experimental activities;
- Conducted bi-weekly check-ins with their primary and/or external supervisors;
- Conducted one full "in-person" committee meeting;
- Posted all their materials related to their research onto a online platform such as Slack, Microsoft Teams, or Google Drive;
- Begun some drafting of the final document (such as background information sections);
- Applied for membership to the American Academy of Forensic Sciences (AAFS) and/or other relevant professional societies;
- Submitted an abstract to the AAFS conference (due Aug 1) if possible.

Course Learning Goals

By the end of this course, students will be able to:

1. Utilize peer-reviewed publications to self-education and to inform their project methodology;
2. Identify skill gaps and where to find help;
3. Articulate their project goals and methodology to both professional and general public audiences;
4. Articulate the relevance of their project to the field of forensic science;
5. Produce a written abstract of their project;
6. Structure their time independently;
7. Set and meet project progress deadlines and goals;
8. Craft professional correspondence to update their supervisors and to make external contacts;
9. Conduct research meetings and produce meeting notes with action items;
10. Identify when to access supervisors for guidance;
11. Troubleshoot problems with their methodology and/or instrumentation
12. Utilize online platforms (Google Drive, Slack, etc) to share documents and content and to organize generated material/data.

Online Format & Schedule

This course has no in-person meetings; however, there is an expectation that students will provide occasional updates on their progress to the course coordinator and a requirement that students provide bi-weekly updates to their research committee. The course lasts the duration of the summer. It is up to students to set their own schedules and work at their own pace. This course represents the transition from students working under externally imposed structure to students becoming independent researchers. The course coordinator is there to offer support, guidance, and advice when requested but will not be checking up on students' progress.

The course has an online presence in Canvas where students can find resources. A limited number of assignments will be posted to the course's Canvas page. Students should expect to spend between 20-30 hours a week working on various aspects of their capstone project: searching for articles, reading, meeting with advisors, lab activities, and/or writing.

Required Texts

There are no required readings for this course. However, a suggested reading list related to conducting research, data analysis, and writing will be posted to Canvas. Announcements with useful resources may be posted from time to time.

Weekly Schedule

It is up to students to develop their own weekly schedule using the timelines they developed during their research proposals. Students need to decide for themselves how many weeks they will work over the summer, if and when they plan to take a vacation, and when they plan to end their summer work before the start of the Fall semester. Students need to decide for themselves their working hours. They should plan to spend at least 20-30hrs a week. It is recommended to set regular hours and a predictable schedule to help establish a routine. If students are sharing lab space, supplies, and/or instrumentation with other students, they should talk with those students to organize schedules.

Assignments & Assessments

The grade for this course is principally based on an assessment of the student's research efforts by the student's internal and external advisors. However, the following assignments will be posted to Canvas and will contribute to the student's final grade:

1. ***Start-of-summer research schedule*** – this is a weekly breakdown of the days/hours you plan to work; setting weekly goals/milestones is advised
2. ***Minutes from full committee meeting*** – a template is provided on Canvas; you must have at least one full committee meeting over the summer; upload the minutes to Canvas
3. ***Evidence of bi-weekly check-ins*** – it is essential that you check-in with your advisors regularly, even if you have nothing to report; I should never get an e-mail from an advisor saying that they haven't heard from you in a while; you can CC or Bcc me on your e-mails or you can take formal minutes and post them to Canvas.
4. ***Project Abstract*** – if you plan to submit to present at the AAFS conference,

abstracts are due Aug 1ˢᵗ. You can either produce an abstract for AAFS (which has its own, unique format, or you can prepare the abstract you will use for your final capstone paper.

5. ***Final reflection paper*** – at the end of the summer, write a 1-pg reflection of how the summer went. What went well; what went wrong? Was there anything you wish you had done differently? What are your plans for the next semester for your research?

6. ***Advisor Assessment*** – your primary internal and external advisor will be sent a rubric to assess their impression of your summer efforts.

Evaluation and Grading

Start-of-summer research schedule	5%
Minutes from full committee meeting	5%
Evidence of bi-weekly check-ins	10%
Project Abstract	5%
Final reflection paper	5%
Assessment by advisors	70%
Total	100 points

File Sharing

Each student must utilize an online file sharing platform to help organize and share material. This will help coordinate documents that you wish to share with advisors, organize all the material and data you will generate, ease the publication process, and facilitate future projects based on your work for future MSFS students. The student may choose which platform they wish to use. Some suggestions are Google Drive, Slack, Dropbox, Box.com, and Microsoft Teams.

Academic Policies

Each student in this course is expected to abide by the University Code of Academic Integrity (https://fas.camden.rutgers.edu/faculty/faculty-resources/academic-integrity-policy/). Any work submitted by a student in this course for academic credit will be the student's own work. All writing assignment should be an original work by a student. Students are highly recommended to educate themselves on the subject; http://library.camden.rutgers.edu/EducationalModule/Plagiarism/whatisplagiarism.html Forensic science is a profession that is internally maintained by ethics and personal integrity.

Students with Disabilities

Rutgers University welcomes students with disabilities into all of the University's educational programs. In order to receive consideration for reasonable accommodations, a student with a disability must contact the appropriate disability services office at the campus where you are officially enrolled, participate in an intake interview, and provide documentation: **https://ods.rutgers.edu/students/documentation-guidelines**. If the

documentation supports your request for reasonable accommodations, your campus's disability services office will provide you with a Letter of Accommodations. Please share this letter with your instructors and discuss the accommodations with them as early in your courses as possible. To begin this process, please complete the Registration form on the ODS web site at: **https://ods.rutgers.edu/students/registration-form**