

INSTRUCTOR

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Office Hours: Tuesday and Wednesday 2:30PM – 5:00PM or by appointment

COURSE DESCRIPTION

FS 700 Graduate Prospectus (1)

Introduction to graduate research in the forensic sciences to include project selection, experimental design, committee formation, and peer review. Development and defense of research proposal. *Prerequisite: Acceptance into MSFS Degree Program. Offered Fall only.*

LEARNING OUTCOMES

The ability to design and conduct an experiment is a valuable tool for every forensic scientist. This skill can help when interpreting physical evidence, developing new protocols, and troubleshooting existing forensic tools. As a graduate student your research project is the hallmark of your MSFS. Your project should reflect the area in which you are building a career and provide you with an opportunity to develop a set of valuable skills. This class is designed to guide you through the process of selecting a research topic, forming a research committee, and preparing a research proposal, and defending a research proposal. As a result each student will finish this class with the ability to:

- Review relevant literature to identify areas suitable for research (Program Learning Outcome 3)
- Communicate with experienced research scientists to form a research committee and acquire advice (Program Learning Outcome 4),
- Use software to generate text and organize, analyze, and present data (Program Learning Outcome 4), and
- Develop a written research proposal (Program Learning Outcome 1), and
- Defend a research proposal in a public forum (Program Learning Outcome 2)

REQUIRED TEXT

None. All materials will be provided by the instructor. However, the following texts are recommended for all students:

- James, SH, Nordby JJ, Bell S (2014) *Forensic Science: An Introduction to Scientific and Investigative Techniques*, 4th Edition. CRC Press, Boca Raton, FL. ISBN 978-1439853832
- Houck MM, Siegel JA (2010) *Fundamentals of Forensic Science*. 2nd Edition. Academic Press, Burlington, MA. ISBN 978-0123749895
- Salkind NJ (2012) *100 Questions (and Answers) About Research Methods*. Sage, Los Angeles, CA. ISBN 978-1412992039
- Walliman N (2011) *Research Methods: The Basics*. Routledge, New York, NY. ISBN 978-0415489942

EVALUATION OF STUDENT PERFORMANCE

Although the majority of your assignments will be graded, this class is offered on a Credit/No Credit basis. This evaluation will be based on three assignments:

1. Formation of a research committee,
2. Research proposal, and
3. Research defense

Formation of Research Committee

You are required to schedule a meeting with all five full-time resident faculty in the Forensic Sciences Unit. The purpose of these meetings is to identify the areas of research in which these faculty can provide advice and to form a research committee. Each MSFS student is required to have a research committee of at least three individuals who are responsible for mentoring and advising the project. One member of your research committee must be a full-time faculty member in the Forensic Sciences Unit. The other two members can include full or part-time faculty, forensic practitioners, and others with specialized knowledge. At least one member of the committee must be external to the Forensic Sciences Unit.

The purpose of your research committee is to guide you through the development and delivery of your research proposal and defense. *You are required to identify your committee and complete the attached form by the end of the 5th week of classes.*

Research Proposal

Your research proposal must be submitted for committee review *by the end of the 12th week of classes.* Proposal guidelines are described at the end of this syllabus. The proposal will be graded using a rubric provided to you in class.

Proposal Defense

Your proposal defense must be scheduled and completed *by the end of Finals Week.* You will work with your committee to develop a defense that is appropriate to your research project. The defense will be graded using a rubric provided to you in class.

Assignment	Points	Due Date
Committee Formation	100 points	By end of 5 th week (25 September)
Research Proposal	100 points	By end of 12 week (13 November)
Proposal Defense	100 points	By end of Finals Week (11 December)

TENTATIVE SCHEDULE

Week	Date	Topic	Notes
1	24 Aug	Introduction	
2	31 Aug	Communicating with professionals	
3	7 Sep	NO CLASS	Labor Day
4	14 Sep	NO CLASS	AFRL Program Review, Dayton, OH
5	21 Sep	Introduction to Forensic Sciences	Committees Assignments Due: Friday, 25 Sep
6	28 Sep	Pattern Evidence	
7	5 Oct	Biological Evidence	
8	12 Oct	NO CLASS	Discoverers' Day
9	19 Oct	NO CLASS	Congress of Forensic Botany, Temuco, Chile
10	26 Oct	Chemical Evidence	
11	2 Nov	Identifying Relevant Literature	
12	9 Nov	Microsoft Word	Draft Proposal Due: Friday, 13 Nov
13	16 Nov	How to Cite	
14	23 Nov	Microsoft Excel	
15	30 Nov	Prism for Mac	
16	9 Dec	Finals Week	Proposal Defense Due: Friday, 11 Dec

ADDITIONAL DIVISIONAL AND UNIVERSITY POLICES*Electronic Devices*

Use of music devices and cell phones is prohibited during all Natural Science and Mathematics classes at Chaminade, unless specifically permitted by your instructor. Use of cellphones and music devices in laboratories is a safety issue. In addition, use of cellphones and music devices in any class is discourteous and may lead to suspicion of academic misconduct. Students who cannot comply with this rule will be asked to leave class and may be subject to laboratory safety violation fines. You will be asked to leave class and marked absent if you do not comply. This will negatively affect your grade. Please refer any questions to the Dean of Natural Sciences and Mathematics.

ADAA Statement

Pursuant to several federal and state laws, including the Americans with Disabilities Act of 1990, as amended by the ADA Amendments Act of 2008, and Section 504 of the Rehabilitation Act of 1973, all qualified students with disabilities are protected from discrimination on basis of disability and are eligible for reasonable accommodations or modifications in the academic environment to enable them to enjoy equal access to academic programs, services, or activities. If a student would like to determine if they meet the criteria for accommodations, they should contact the Counseling Center at 808-735-4845 for further information.

Attendance & Tardiness

Students are expected to attend regularly all courses for which they are registered. Students should notify their instructors when illness or other extenuating circumstances prevents them from attending class and make arrangements to complete missed assignments. Notification may be done by emailing the instructor's Chaminade email address, calling the instructor's campus extension or by leaving a message with the instructor's division office (Natural Sciences and Mathematics +1 (808) 440-4204). It is the instructor's prerogative to modify deadlines of course requirements accordingly. Any student who stops attending a course without officially **withdrawing** may receive a failing grade.

Unexcused absences equivalent to more than a week of classes may lead to a grade reduction for the course. Any unexcused absence of two consecutive weeks or more may result in being **withdrawn** from the course by the instructor, although the instructor is not required to **withdraw** students in that scenario. Repeated absences put students at risk of failing grades.

Policy on Communication

The University provides a Chaminade email address for all students. Official Chaminade communications will be sent to the students' Chaminade email address and instructors will use only this email to communicate with students. It is the responsibility of the student to check their email frequently. Report email-related problems to the Helpdesk at 808-735-4855 or helpdesk@chaminade.edu.

Laboratory Safety Information

The following guidelines are established to provide instructions in maintaining safety for students, staff, and faculty while using any of the science laboratories at Chaminade University.

Syllabus

FS 700 Graduate Prospectus

The Division of Natural Sciences and Mathematics (NSM), along with the University Environmental Safety Office are responsible for enforcing the regulations set forth in the current Student Handbook. Queries should be addressed to: Dean of Natural Sciences and Mathematics (808) 440-4204; Environmental Safety Officer (808) 739-4811

Title IX Declaration

Chaminade University of Honolulu recognizes the inherent dignity of all individuals and promotes respect for all people. Sexual misconduct, physical and/or psychological abuse will NOT be tolerated at CUH. If you have been the victim of sexual misconduct, physical and/or psychological abuse, we encourage you to report this matter promptly. As a faculty member, I am interested in promoting a safe and healthy environment, and should I learn of any sexual misconduct, physical and/or psychological abuse, I must report the matter to the Title IX Coordinator. Should you want to speak to a confidential source you may contact the following:

- Chaminade Counseling Center| 808 735-4845.
- Any priest serving as a sacramental confessor or any ordained religious leader serving in the sacred confidence role.

Academic Honesty

Students are expected to have read and to abide by the “Student Rules of Conduct” which are available in your copy of Chaminade University’s Student Handbook. Cheating in the form of plagiarism, collusion, deception and will not be tolerated and will negatively affect your grade.

The instructor may modify elements of this syllabus according to the operational needs of the class.

RESEARCH PROPOSAL GUIDELINES

All thesis proposals should contain the following sections. Note that methodology components will vary depending on the method chosen. Students using multiple methods should incorporate all the necessary components to fully explain the methodology chosen.

- An **Introduction**, which introduces the topic and identifies the problem or issue to be addressed in the thesis. This should also introduce the theoretical framework or orientation of the thesis.
- A section/paragraph that discusses the **Hypotheses and/or Objectives**. For quantitative studies this outlines and explains the precise research questions and hypotheses and the ways in which they will be investigated. For qualitative studies this section addresses several issues. It elaborates research questions that will be answered; outlines theories relevant to the investigation; provides a rationale for why the specific group, location or event should be studied.
- A **Literature Review**, which examines the previous research that is directly relevant to the proposed study (NB the literature review in the final product will be more comprehensive than is necessary at the proposal stage).
- A **Materials and Methods** section. The research method should be described in enough detail that the committee fully understands exactly what it is that student proposes to do in the research. This section should include a detailed discussion of each of the following components:
 - Description of materials
 - Independent and dependent variables
 - Description of instrumentation and/or methods
 - Proposed Statistical Analyses
- A **Conclusion** that discusses how the study will make a contribution to the forensic sciences.
- A **Timeline** that outlines the major milestones leading up to thesis defense and submission.
- A **Budget** including a description and cost of necessary materials
 - Include all materials, even if they are already in your possession. Part of this section serves to provide you with experience with shopping for science.
- **References** should list the details for all works cited within the proposal. Reference and citation format must conform to the MSFS Guide for Authors, which is provided to you by the instructor.
- **Appendices**, if applicable, including:
 - Raw data
 - Copies of all necessary ethical paperwork, such as Institutional Review Board Approval.
 - Confirmation of access from agency or organization where data is being collected, if outside of Chaminade University of Honolulu.

The length of the thesis prospectus will vary based on a number of factors (most notably the type and complexity of the methodology). A long prospectus is not necessarily better than a shorter one. *Proposals should not exceed 50 double-spaced pages in length.*

THE PROPOSAL DEFENSE

The student must present the research method chosen to study the research question and the proposed system of data analysis. In the thesis proposal, the student must identify a specific method for studying the research question and demonstrate competence in that method. One or more members of the thesis committee must have expertise in the method/topic selected.

The proposal defense is an open examination, attended by the student, the committee chair, the committee members, and members of the public. Students should discuss the format of exam with their chair prior to the defense. The entire defense should take approximately one hour. The student should prepare a brief presentation of the proposed research (15-20 minutes) using PowerPoint or handouts.

Upon completion of the presentation and question period, the general public must leave the room while the committee members discuss the student's work with the student. After this time the student must leave the room while the committee members discuss the student's proposal. There must be a discussion about the overall research design and scope of the research. After this time the student comes back into the room and is informed of the defense result.

There are four possible results of the proposal defense:

1. Pass with no revisions,
2. Pass with minor revisions,
3. Pass with major revisions, or
4. Fail.

If a student receives a result of pass with minor revisions, then the student's committee chair must review the revisions and sign that the revisions are sufficient. If a student must make major revisions, all the committee members must review the revisions and agree that they are sufficient to pass the examination. Students who fail must make the suggested revisions and retake the oral defense.

Checklist for the Proposal Defense

- Written prospectus of no more than 50 pages (excluding Appendices)
- Raw data and supplementary documents, if necessary.
- Feedback from committee chair and all committee members
- Agency/organizational approval for data collection
- 4 weeks notice to the Examination Committee

Checklist after the Proposal Defense

- Make any required revisions to proposals, submit final proposal to your Research Committee Chair and the Director of Forensic Sciences.



Chair and Committee Confirmation

As the committee chair and committee members, we agree to serve as the research committee for _____; CID _____.

_____	_____	_____
Committee Chair	Signature	Date

_____	_____	_____
Committee Member	Signature	Date

_____	_____	_____
Committee Member	Signature	Date

_____	_____	_____
Committee Member	Signature	Date

