

Cedar Crest College
Master's Program in Forensic Science
Spring, 2008

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Course Title: Thesis Prospectus, FSC 500

Course Prerequisites: Acceptance into the Master's of Science Program in Forensic Science and will begin graduate research in the summer of 2008.

Course Objectives

1. To further the knowledge of the primary literature in forensic science.
2. To further the understanding of the student to the future research needs of the forensic science community.
3. To ensure that students know how to conduct a proper literature search.
4. To further the understanding of experimental designs appropriate for particular topics
5. To review methods of data evaluation including statistical analysis of data and appropriate sizes of databases.
6. To introduce the student to the format of the written thesis.
7. To ensure that students know the expectations for presenting a graduate seminar.
8. To introduce the student to potential sources of research funding and grant writing.

Course Outcomes

1. Students will complete a written research proposal including a objectives and introduction, review of literature, research design and hypothesis, appropriate data evaluation tools and budget. The proposal will be approved by the student's primary mentor and the program director.
2. Students will be prepared to begin graduate research immediately after the conclusions of the course.
3. Students will know how to present their research at a graduate seminar.

Proposed Outline of Topics

January 16

Expectations of graduate work.

Review of thesis guidelines.

Assignment #1 - Development of potential research ideas and listing of primary sources.

January 23

Assignment #1 due.

Discussion of potential research ideas.

Discussions with potential mentors.

January 30

Development of an idea and identifying a thesis mentor.

Chapter #1 (Introduction and Objectives) assigned

Week of February 6

Visit to John Jay library

February 13

Conducting a literature search.

Chapter #2 assigned (Literature Search)

February 27

First draft of chapter 1 due.

Discussion of research methods and statistical evaluation.

Assignment #2 – Experiment design and statistical evaluation of data.

March 12

Assignment #2 due.

Discussion of research methods and statistical evaluation.

Discussion of funding and grant writing.

Chapter #3 (Methods) assigned.

March 19

First draft of chapter #2 due.

Discussion of graduate seminar.

Preparation for presentation.

March 26

First draft of chapter #3 due.

Taping of student presentations.

April 2

Critique of student presentations.

Budget assigned.

April 9

Draft #2 of Chapter 1 due.

Budget due.

April 16

Draft #2 of Chapter 2 due.

April 23

Draft #2 of Chapter 3 due.

Grading

Assignment 1	10%
Assignment 2	10%
Chapter 1	25%
Chapter 2	25%
Chapter 3	25%
Budget	5%

Grades:

90-100	A
88-89	A-
86-87	B+
80-85	B
78-79	B-
76-77	C+
70-75	C
68-69	C-
67 and below	F

Bibliography

Ferguson, T., *A Course in Large Sample Theory*, CRC Press, 1996.

Holton, D., Fisher, E., *Enjoy Writing Your Science Thesis or Dissertation: A Step by Step Guide to Planning and Writing Dissertations and Theses*, Imperial College Press, 1999.

International Committee of Medical Journal Editors, *Uniform Requirements for Manuscripts Submitted to Biomedical Journals*, Journal of Canadian Medical Association, Volume 156, 1997, p. 270-277.

Lange, K., *Mathematical and Statistical Methods for Genetic Analysis*, Springer Verlag, 1997.

McPherson, G., *Applying and Interpreting Statistics: A Comprehensive Guide*, Springer, 2001.

Sokal, R.R., Rohlf, F.J., *Biometry: The Principles and Practice of Statistics in Biological Research*, Third Edition, WH Freeman and Company, 1994.

Todman, J.B., Dugard, P., *Single-Case and Small-N Experimental Designs: A Practical Guide to Randomization Tests*, Lawrence Erlbaum Associates, 2001.