

FNR 5608 RESEARCH PLANNING 2024

CREDITS: 3

SCHEDULE: Friday - 2nd and 3rd periods, 8:30 - 10:25; Newins Ziegler 222

INSTRUCTORS: Dr. Wendell P. Cropper, Jr.
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Office Hours: After class (10:30-11:30 AM Friday) and by appointment

RECOMMENDED TEXTS:

- Feibelman. 1993. A Ph.D. is Not Enough. Basic Books.
- Day and Gastel. 2006. How to Write and Publish a Scientific Paper. (6th ed.) Greenwood Press.
- Gordon. 2007. Planning Research. A Concise Guide for the Environmental and Natural Resource Sciences. Yale University Press

OBJECTIVES: FNR 5608 is designed for beginning graduate students who intend to conduct research and write a thesis.

1. To provide an understanding of the planning, funding, conducting and reporting of research.
2. To provide an appreciation of the history, philosophy of science, and the scientific method, including the responsibilities of a scientist.
3. To provide an appreciation of the opportunities and facilities for research within the University of Florida, IFAS and especially FFGS.
4. To prepare a research proposal. For most students this project will be a first attempt at producing a proposal for thesis research. Students that already have an approved thesis proposal may target a federal granting agency for their proposal. NSF programs such as the Doctoral Dissertation Improvement Grant or the Graduate Research Fellowship are appropriate. A standard research proposal for an approved RFP (Request for Proposals) may also be used.

GRADING:

Class Participation/discussion	10%
Problem Statement	10%
Literature Review	5%
Oral Presentation	5%
Poster	5%
Group Presentation	5%
Abstract Exercise	5%
Data Management Plan	5%
Final Proposal	50%

(Problem Statement; Literature Review; Methods; Budget and Budget Justification).

You cannot receive an A in this course without receiving an A grade for the final proposal. For information on current UF policies for assigning grade points, see <https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>.

LATE ASSIGNMENTS:

Late assignments will be penalized. -10% (per day or fraction of a day after deadline).

Requirements for class attendance and make-up exams, assignments and other work are consistent with university policies that can be found at: <https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/>.

**FNR 5608 RESEARCH PLANNING
CLASS SCHEDULE - FALL 2024**

Week	Date	Topic	Reading (capital letters refer to Canvas modules)	Due dates
1	08/23	Introduction: Objectives, Format, Projects Grading	Planning Research by Gordon	
2	08/30	Analyze Proposal Problem Statements Philosophy of Science	A; Feynman and Colinvaux	In class discussion
3	09/06	Analyze Selected Proposal Literature Review	A	
4	09/13	Using the Science Library: Research References		Abstract assignment due
5	09/20	Data Management	G; Michener; Hart et al	
6	09/27	Group Presentations: Research in FFGS	Group Presentations (half class)	Data Management Plan Due
7	10/04	Group Presentations: Research in FFGS	Group Presentations (half class)	
8	10/11	Ethics in Science	C	Problem statement due

9	10/18	No class (Homecoming)		
10	10/25	Ethics in Science	C	
11	11/01	Data Analysis Discussion	G; Kass et al	Literature Review due
12	11/08	Presenting Research; Preparing a Poster; Job Interview	E, F	
13	11/15	Writing a Scientific Paper; Federal Grants, Peer Review	D, B	
14	11/22	Oral Individual Proposal Presentation Posters (entire class)		Posters Due
15	11/29	No class (Thanksgiving)		
16	12/04	Last day of UF Classes **Wednesday**		Full Proposal Due

A. Proposals Folder:

Anderson; Chmura; Jansen; Gwen (Ecology)
Student_proposal draft.doc (Social Science)
Committee Meeting Proposal-Bev.doc (Molecular Biology)
Platt1964.pdf
Chamberlin1965.pdf
Feynman; Cargo Cult Science
Colinvaux; Amazon Expeditions
miner.htm (guide to writing proposals)

B. Federal Folder

2006_star_fellow.html; nsf05601.htm; nsf05607.htm
Results_EPA.htm
GRFP_Applicant_User_Guide.pdf; DDIG_advice.pdf
Indirect_costs.pdf
Soil C and roots at Amerflux.pdf
ProposalCheck.htm
Cost sharing letter.pdf; DSR-1 form.pdf; Budget 2005.xls

Feibelman Chapter 7

C. Ethics Folder

Fraud1.pdf; Fraud2.pdf; Fraud3.pdf; Fraud4.pdf; Fraud5.pdf; Fraud6.pdf
Ethics_marsh_an_kenchington_2004.pdf
Retraction.pdf
Become a Certified Ecologist.doc
Misconduct.pdf, Consequences.pdf
Misconduct_Mayhem.pdf
Science_oath.jpg
UF_research_misconduct.pdf

D. Publishing Folder

Authorship.pdf; Authorship.jpg; Journals_2006.pdf
Mss folder
Peer_review
Peer_review2.pdf; Peer_review3.pdf; Peer_review4.pdf; Peer_review5.pdf; Peer_review6.pdf
Publish-Perish.png
Prolific_scientists.pdf
Scooped-Nature06.pdf

Abstracts: Chapt. 9, Day and Gastel
Day and Gastel cover a broad range of scientific publishing issues.
Feibelman Chapter 4

E. Presenting Folder

Is PowerPoint Evil.ppt
Power_Point.pdf
Posteradvice.htm
Block.pdf
PosterTemplate1.ppt; PosterTemplate2.ppt; PosterTemplate3.ppt; PosterTemplate4.ppt;
PosterTemplate5.ppt
ChmuraProposal.ppt; CommMeeting-040606_Loudermilk.ppt

Day and Gastel, Chapt. 27-28
Feibelman Chapter 3

F. Academic Job Folder

Hiring.pdf
Interviewing_for_academic_jobs.pdf

Day and Gastel Chapters 36, 38
Feibelman Chapter 6

G. Data Management and Analysis Folder

Hart_et_al_journal.pcbi.1005097.pdf
Kass_et_al_journal.pcbi.1004961.pdf
Michener_journal.pcbi.1004525.pdf

Assignments

1. Abstract Writing: Select a scientific paper with methods, results and conclusions. **Do not read the abstract.** Write an abstract for the paper and compare your abstract with the published version. Write a short statement about the differences and relative strengths of the two abstracts. The exercise will be graded primarily on your analysis.

2. Write a **Problem Statement** for your proposal. The elements of a good problem statement should include:

- What is the objective of your research?
- What hypotheses (if any) are you testing?
- What question(s) will you answer?

- How might this research expand understanding?
- The Problem Statement may be a single section of your final proposal, or elements of it may appear in different sections.

3. Write a **Literature Review** for your proposed research. The elements of the literature review may appear in different sections of the proposal. For this assignment there must be a minimum of 25 cited references. This should not be an annotated bibliography. The literature review is a narrative discussion of sources of information relevant to your research. Analysis, synthesis, and evaluation are appropriate.

A. Papers that review broad fields (good source of additional papers to read). Placing your research in context of "the Big Picture"

B. Papers that describe other attempts to address Problem Statement questions, perhaps unsuccessfully; perhaps in a different ecosystem/organism etc.

C. Key papers in your field. Even identifying one key paper can lead to a large body of relevant literature in the Literature Cited section.

D. History (selective) of previous studies

E. Methods (How to do it)

→→ Read the papers that you cite! ←←

4. **Group presentations of FFGS research**. Each group will learn about a research focus area of the SFRC. The web site, faculty publications, faculty interviews, graduate students not in this course, etc. can all be used as resources. Examples of focus areas include (but not limited to, and not mutually exclusive):

A. Social Science/Human Dimensions

B. Geomatics

C. Genetics and Molecular Biology

D. Tree, Forest, and Landscape Biology

E. Fisheries

F. Tropical Forestry

G. Urban Forestry

Each group should prepare a discussion to introduce the class to the research focus area, representative research methods, and the faculty researchers in the focus area.

5. **Data management plan**: Draft a data management plan (DMP), guided by the readings in Module G and the in-class discussion, as part of the proposal (< 2 pages, ideally 1 page).

6. **Full proposal**. The proposal should include the elements of the Problem Statement, the Literature Review, Methods (including data management and analysis), Budget, and Budget Justification. The organization should conform to the standards of your Major Advisor/research area.

Online Course Evaluation Process

Student assessment of instruction is an important part of efforts to improve teaching and learning. At the end of the semester, students are expected to provide feedback on the quality of instruction in this course using a standard set of university and college criteria. Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at: <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluer.com/ufl/>. Summaries of course evaluation results are available to students at: <https://gatorevals.aa.ufl.edu/public-results/>.

Academic Honesty

As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge: *"We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity."* You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required or implied: *"On my honor, I have neither given nor received unauthorized aid in doing this assignment."*

It is assumed that you will complete all work independently in each course unless the instructor provides explicit permission for you to collaborate on course tasks (e.g. assignments, papers, quizzes, exams). Furthermore, as part of your obligation to uphold the Honor Code, you should report any condition that facilitates academic misconduct to appropriate personnel. It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For more information regarding the Student Honor Code, please see: <https://sccr.dso.ufl.edu/process/student-conduct-code/>.

Software Use

All faculty, staff and students of the university are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against university policies and rules, disciplinary action will be taken as appropriate.

Services for Students with Disabilities

The Disability Resource Center coordinates the needed accommodations of students with disabilities. This includes registering disabilities, recommending academic accommodations within the classroom, accessing special adaptive computer equipment, providing interpretation services and mediating faculty-student disability related issues.

Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the instructor when requesting accommodations.

Contact: 0001 Reid Hall, 352-392-8565, <https://disability.ufl.edu/>

Campus Resources:

Health and Wellness

- *U Matter, We Care*: If you or someone you know is in distress, please contact umatter@ufl.edu, 352-392-1575, or visit [U Matter, We Care website](#) to refer or report a concern and a team member will reach out to the student in distress.
- *Counseling and Wellness Center*: [Visit the Counseling and Wellness Center website](#) or call 352-392-1575 for information on crisis services as well as non-crisis services.
- *Student Health Care Center*: Call 352-392-1161 for 24/7 information to help you find the care you need, or [visit the Student Health Care Center website](#).
- *University Police Department*: [Visit UF Police Department website](#) or call 352-392-1111 (or 9-1-1 for emergencies).
- *UF Health Shands Emergency Room / Trauma Center*: For immediate medical care call 352-733-0111 or go to the emergency room at 1515 SW Archer Road, Gainesville, FL 32608; [Visit the UF Health Emergency Room and Trauma Center website](#).
- *GatorWell Health Promotion Services*: For prevention services focused on optimal wellbeing, including Wellness Coaching for Academic Success, visit the [GatorWell website](#) or call 352-273-4450.

Academic Resources

- *E-learning (Canvas) technical support*: Contact the [UF Computing Help Desk](#) at 352-392-4357 or via e-mail at helpdesk@ufl.edu.
- *Career Connections Center*: Reitz Union Suite 1300, 352-392-1601. Career assistance and counseling services.
- *Library Support*: Various ways to receive assistance with respect to using the libraries or finding resources.
- *Teaching Center*: Broward Hall, 352-392-2010 or to make an appointment 352- 392-6420. General study skills and tutoring.
- *Writing Studio*: 2215 Turlington Hall, 352-846-1138. Help brainstorming, formatting, and writing papers.
- *Student Complaints On-Campus*: [Visit the Student Honor Code and Student Conduct Code webpage](#) for more information.

In-Class Recording

Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

A “class lecture” is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session.

Publication without permission of the instructor is prohibited. To “publish” means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.