Instructor Information
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352-273-3538
Office Hours: 2-5 PM, Monday and Tuesday, weekly

All correspondence regarding this course must occur through your UFL e-mail account. That is a UF rule. I cannot respond to e-mails that you send through other accounts.

Consultation Policy

Please request a meeting by telephone or e-mail. We can consult by telephone or by Zoom. Please use e-mail as your primary form of consultation *only if the question is relatively simple.* In my experience questions concerning course concepts and principles and how to apply them on assignments cannot be answered well by e-mail. Office hours are 2-5 p.m. EST every Monday and Tuesday. However, I will meet with you by telephone or through Zoom any time I can. Please contact me at any time if you have a question or want to discuss something.

Course Description

This course explores how science generates new knowledge, how to evaluate the applicability of research results in your professional work, and how to assess whether science-based claims are justified. 3 Cr, no prerequisites.

Course Goals

- Improve your ability to determine the degree to which you can apply reported research findings in your professional work, including needs assessment, program planning, and evaluation;

- Prepare you to create reliable research findings in order to reach science-based conclusions, including research, needs assessment, program planning, and evaluation; and

- Enhance your ability to assess science-based claims in order to make decisions in your personal and professional life.

Course Objectives -- After completing this course, you will be able to:

1. Identify and use scientifically credible sources of information in your professional work;

2. Evaluate the empirical evidence and conclusions reached in applied research about social problems, issues and needs with an emphasis on internal and external validity and explanatory power;

3. Assess the degree to which sampling procedures described in the research, program planning, and evaluation literature are appropriate and likely to produce reliable and useful research findings and conclusions;

4. Create your own sampling protocols with a focus on needs identification and program evaluation;

5. Interpret and evaluate the rigor of the qualitative and quantitative data analysis procedures reported in the research, needs assessment, program planning, and evaluation literature;

6. Select appropriate analytic procedures for your own needs assessments, program planning and evaluation;

7. Assess the strengths and weaknesses of research designs in the research literature that we use to inform practice, including the literature regarding needs assessments, program planning and evaluation of interventions like educational programs; and

8. Select appropriate designs, based on the nature of the research question, to use in your own work, with a focus on needs assessment, program planning, and evaluation.

What I Have Learned about Success in This Course

- Prior training with research methods, particularly as an undergraduate, is not critical to success because research **design** and research **methods** differ greatly.

- Some background in research methods **may** help you gain command of the **language of research.**

- You **do not need prior experience or knowledge of statistics or any other form of data analysis** to succeed in this course, although you need some familiarity with very basic statistical concepts like the mean, the standard deviation, and significance. If you do not have this familiarity, consult this [quick reference guide from Texas A&M University](#)

- My experience is that **class standing is not a predictor of success in this class**. Contrary to popular belief, grades in this class tend to be fairly high.

- Students who **fall behind** on assignments are **unlikely** to succeed in the class. This is particularly true in the Distance Education setting.

- Students who do **not consult with me when they are confused** are **unlikely** to succeed in the class.

Basic Steps You Must Take NOW to Succeed in This Course

- You need to **know how to use the e-learning system at UF**. You will submit all assignments and receive all of my comments through this system. If you are not familiar with it, go to https://wiki.helpdesk.ufl.edu/FAQs/E-Learning

- You have to be able to **use the library**. If you are new to graduate study, I strongly recommend that you thoroughly review the material about services for distance learners offered by the library http://guides.uflib.ufl.edu/distancelearners. It is very important that you register for one of the online workshops about how to use the library as soon as possible –

- Finding appropriate materials about research design is critical to success in this class. You must know how to use the ***University of Florida library literature search engines*** in a sophisticated way. Do not rely on Google Scholar, OneSearch and similar search engines. Those are ineffective for finding literature about research design that is appropriate for this course because you need more ability to define the search parameters than those engines permit. Academic Search Premier is the recommended database. Seek help if you need it. You will fall behind quickly if you fail to use the library effectively during the first part of the course. The Family, Youth & Community Sciences subject matter specialist is Dr. Melody Royster, mroyster@uflib.ufl.edu, 352-273-2661.

- You must know how to use the UF library ***e-reserve system***. There is a link to the reserve system through e-learning. The URL is https://ares.uflib.ufl.edu/ares/ ***All of the required readings for the course are available to UF faculty and students free of charge either on e-reserve or because UF Library provides direct electronic access to the journal in which the article is published. I do NOT ask you to purchase anything except the textbooks.*** However, almost every year someone ends up paying for an article early in the course because they failed to access the article through the UF library system. If you plan to use your computer to find materials during your graduate program, you need to **establish off-campus access to the library**. If you do not set up an off-campus (VPN) account, you will not be able to access the research journals that the UF library system provides or you will have to pay for them. Do not try to use "Option #1: UF Proxy Server – that is not nearly good enough access for this class.

- I strongly encourage you to ***learn to use the citation management tools available through the library***. These tools will save you hours of work in this class and throughout your graduate program. Consult the library website to learn about these tools, especially RefWorks and EndNote.

- You need a ***very basic knowledge of social science theory***, which includes theories of behavioral change like the theory of planned behavior or value, belief and norm theory. You do not need extensive knowledge. If you have no familiarity with or knowledge of social theory, please make an appointment with me so that I can help you get off to the right start in this class.

Approach and Expectations

Pay attention to the specific performance criteria for every assignment. It is impossible to perform well on assignments if you do not understand the evaluation criteria. I provide a list of the performance criteria you need to achieve to receive full points for every assignment. While there are similarities, the criteria ***differ for different assignments. Examine the performance criteria BEFORE you start the assignment.***

Focus on thinking, not reciting rote answers or repeating what others have said or written, including what I say and write. Your performance in this course focuses on your ability to apply the concepts that we address during the course. Devoting time, attention and thought to your assignments is critical to success. I expect you to develop and demonstrate

analytical and critical thinking skills during this course. Both are central to science and are prerequisites for using science to develop new knowledge and to apply effectively the knowledge generated by science. In practical terms, this means that I am **NOT** looking for rote answers to the questions I ask. Rather, I want to see that you can apply the concepts that we discuss to analyze and evaluate research studies and to develop your own studies, including needs assessments, program planning, and evaluation. Simply repeating what you hear or read will earn 0 points for most evaluation criteria.

I do not grade by page length. Almost every year, I end up telling students to spend **less** time on my assignments. If you read efficiently (which we will practice), use all of the materials I provide, and practice "thinking before writing," you will be able to respond much more quickly and effectively to my questions. It's quality, not quantity.

Use, cite and reference the research design literature. This is a graduate course. I assume that you have enrolled in this course because you want to acquire the knowledge and skills needed to conduct your own research or evaluation and apply research findings in a professional capacity. I use a combination of assigned readings, self-directed exploration of the literature and classroom activities to try to create an environment in which you can gain the critical skills and knowledge you need. Taking advantage of these opportunities is your responsibility. I expect you to provide evidence in the form of citations in assignments and class participation that you have used the resources, including the texts, my lecture material, our class activities, and materials that you find for yourself, to maximize your learning experience.

- *Use* means indicate what ideas or concepts or conclusions in a specific resource that you relied upon – that you *used the material* in some way. I do not want the long list of citations with no indication of how you used the material to develop your own conclusions like this one: "Several authors (Jones, 2013; Smith, 2004; Williams, 2001) discuss random sampling." What was it that you learned and applied from Jones, from Smith, and from Williams? *Be specific and explain how you used the resource.* Example: "I considered Smith's comments about the role of sample size in random sampling, which I found somewhat confusing. Jones' explanation of the differences between a true random sample (what I believe Smith means) and the best achievable standard for a random sample (the pragmatic answer as Jones calls it) helped me understand how to determine a sample size that is achievable and still provides a good basis for generalization of results."

- *Cite* means that you place a citation in the body of your response using APA style. Be very careful to give full credit to authors when you "borrow" their ideas. Cite the author. You probably know that you need to provide authors name, date of publication and *page number* when you quote an author. However, paraphrasing – just changing a few words or saying "more or less" exactly what an author said also requires use of the page numbers. Even general references to an author's ideas require citation. Your continued enrollment in this course indicates your pledge to comply with all UF policies, including UF policies regarding plagiarism. UF takes this very seriously and the UF graduate school and all graduate departments have stringent plagiarism policies. If you are unaware of those policies and of the basic definition of plagiarism, go to http://graduateschool.ufl.edu/personnel-and-policy/mentoring. If in doubt – cite and cite fully including page numbers.

- *Reference* means that you provide a full reference to the original work at the end of the assignment. Include all the materials that you cite. If you are not familiar with APA style, you

probably need to buy the style manual since most sciences use this format. You can take a tutorial on APA style at http://www.apastyle.org/learn/tutorials/basics-tutorial.aspx. I see one common error very often having to do with journal versus internet citation form. (1) Only use the APA style for *internet documents* if the material you cite is in html form and is therefore *subject to change over time*. In this case, you have to provide the URL and the date you downloaded the information. This is because html documents change over time. (2) Do *NOT use this format when you download a journal article*. Use the journal citation form. Journal articles – whether you get them in hard copy from a physical location in the library or download the electronic copy from the publisher – *do not change over time.*

Go beyond required readings. It is critical that you explore the body of literature about research design beyond required readings to complete assignments. I base my evaluation of your performance, in part, on the degree to which you provide evidence that you have taken responsibility for your own learning experience and that you are actively seeking out all of the resources possible to make the learning experience as profound and meaningful as possible. You will see that this is a performance criterion for most assignments. Some students routinely lose 20% of the points on an assignment because they fail to meet this performance criterion. I do not tell you how many references to include. For some assignments, the answer might be five or six items and for others ten or twelve, and for others two. You have consulted "enough" literature about research design *when you can demonstrate that you fully understand and can apply the concepts at issue to your own work*.

Participate fully in class. You should read the material in the texts or other assigned readings **before** class. I base my comments in class and the class exercises on the assumption that you already know the material in the assigned readings. Our class activities, including my comments, will build upon and extend your competence in each topical area. If you cannot participate in the on-line discussion every Tuesday from 6:00 to 7:30 PM EST, you will be able to complete on-line exercises to earn points for class participation. However, I strongly encourage you to participate in the on-line discussions because students who do so perform better in the class. There is no substitute for direct contact with the instructor and other students and an opportunity to get your questions answered in person.

Materials

Gorard, S. (2013) *Research Design: Creating Robust Approaches for the Social Sciences.* Sage Publications, Thousand Oaks, CA.

Frey, B.A. (2016). *There's a Stat for That!* Sage Publications, Thousand Oaks, CA.

Most of the additional readings for the course consist of research journal articles. Some are chapters of books of mine that I have placed on e-reserve. I also provide a list of suggested readings for most topics. These will be useful in completing the assignments.

Grading Philosophy and Approach

My goal is for every student to earn an A in this course. I expect to see increased mastery of the concepts and ideas that we discuss as we progress through the course. Therefore, expectations grow as the semester progresses and what was an acceptable or adequate response on an early assignment will most likely **not** be acceptable on a later assignment. I will provide comments for every assignment, in addition to a numerical score. My intent is to help you recognize both the weaknesses *and* the strengths in your submissions – which will help you

improve performance on future assignments. However, I have two sections in this class and my time is limited. I'm sure I will end up concentrating more on telling you how to improve than congratulating you on the things you did well. Please accept my apology for the "biased" nature of the comments you will probably get.

Late Submission Policy

I reserve the right to refuse to accept work submitted after the due date. UF policy covers the student's responsibility for informing the professor of planned absences and illness and these policies are followed in this class. I will award zero (0) points for any assignment that is submitted after the due date that fails to meet UF policy for excused absences. All due dates are given at the class web site. 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/ugrad/current/regulations/info/attendance.aspx.

Where to Find Reference Materials

Most disciplines support several journals. You need to learn to use **research journals.** Many journals report research, but there are important differences between them in terms of the audience for which they are intended. A research journal means just what it says. The primary audience for the material is other researchers. These journals are of the quality that you will use throughout your graduate experience and your employer after graduation will expect you to know these journals in your area of expertise and use them regularly. Whatever your undergraduate experience, relying on popular web sites is **not acceptable** in graduate school or in professional work.

However, even among research journals, the scholarly sophistication of the material they contain varies. High impact research journals are internationally recognized. See http://guides.uflib.ufl.edu/content.php?pid=320458&sid=2761617 where the library system explains the impact factor for journals and how to find it. This site also explains how to find other important indicators like the article influence or immediacy index score. High impact journals are always peer reviewed. They report original research findings. They do not accept material published elsewhere. The articles they publish provide an in-depth description of the research design and sampling protocol, the methods of data collection and analysis, and the findings of the research. Both non-profit (professional societies mostly) and for-profit presses publish very good research journals. Most professional societies and for-profit publishers also produce journals for practitioners. They, too, are normally peer reviewed, but they are often usually less scholarly in nature than the high impact research journals. They often focus on the recommendations that grow out of research, but do not provide a detailed description of the research design, sampling, analytic processes and results. Do not use these journals in this class. Other journals are for a general public readership. You should **not** rely on these publications in this class or in your work as a professional.

How can you identify a research journal? You can always consult with me or other faculty members in your area of interest to identify appropriate journals, but you need to develop the ability to judge the quality of journals yourself. Several characteristics distinguish between high quality journals and other kinds of publications. First, in research journals, the majority of the articles will report original research results. Opinion pieces, reviews and the like will be a minor component in the content of any given issue. Second, the articles will written for a sophisticated reader. You can see this by the use of technical terms, for example. Perhaps most telling, research reports in these journals explain research design, sampling and methodology in detail.

They include a thorough analysis of the results. Third, the research reports focus on the results and implications of the research (the knowledge created) rather than on recommendations for how to apply or use the findings. Finally, the description of the journal (somewhere near the very front) will give clear clues. Look for words like scholarly, cutting-edge, and international interest. In my discipline, geography, the Association of American Geographers (AAG) publishes two journals. The first, the Annals of the American Association of Geographers, is a high quality research journal. Here is how the AAG describes it:

> "The Annals of the Association of American Geographers publishes original, timely, and innovative articles that advance knowledge in all facets of the discipline. Papers accepted for publication must meet the highest standards of scholarship, address significant research problems and issues, interest the broad readership of the journal, and be attuned to the sensibilities of a diverse scholarly audience."

Lower impact journals do not aim their material at such a research audience. The audience might be the family practice doctor rather than the doctor at a research hospital or the school camp counselor rather than the professional whose work focuses on interventions for problematic adolescent behaviors. Articles in these journals often provide only a brief description of research design and methodology. The section about data analysis is usually not well developed and the results are typically in summary form, not detail. These journals often focus on recommendations for applying research findings, not how the research advances knowledge. They often do not provide enough information to make an adequate evaluation of the degree to which their findings are justified or the degree to which they can be applied outside the context in which the study was conducted. The Professional Geographer is a typical journal of this type: "[The Professional GeographerI] publishes short articles on academic or applied geography, emphasizing empirical studies and methodologies, as well as book reviews. These features may range in content and approach from rigorously analytic to broadly philosophical or prescriptive." National Geographic is an example of a general interest journal in geography. It has beautiful pictures is interesting, but is for the general public, not professionals.

Grading Scale

A	95 – 100%	A-	90-94%		
B+	87-89%	B	83-86%	B-	80-82%
C+	77-79%	C	73-76%	C-	70-72%
D+	67-69%	D	63-66%	D-	60-62%
E	<60%				

For information on current UF policies for assigning grade points, see
https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx

Distribution of Grade	Possible Points
Class Preparation & Participation	100
Quizzes	200
Ethics Training	100
Assignment 1: The Research Question & Conclusions	100
Assignment 2: Sampling and Data Analysis	150

Assignment 3: Research Design for Needs Assessment	150	
Assignment 4: Research Design for Evaluation	200	
Total	1000	

ALL SUBMISSIONS DUE AT 7:00 PM ON THE DATE INDICATED

Class Preparation and Participation. I expect you to demonstrate through your comments during class meetings or in postings that substitute for attendance that you have prepared for class. I want you to read the assigned materials *quickly and efficiently to gain a few key ideas,* not the word-by-word with yellow highlighter approach you may be used to using. Most chapters in Gorard have exercises at the end. Make sure you can complete them. I provide a study guide for most of the additional required readings available at the weekly website. Look at the study guides *before you read* the material. Literally "look for the answers" to those questions as you read. There are almost always key ideas that I want you to get from an assigned reading. There will be lots of topics and ideas covered in most readings that I simply do not think are important enough to ask about – **skim those sections.** I indicate other specific preparation for class for most weeks. Consult the web site for each week to make sure that you complete these preparations. *If you do not want to or cannot attend the on-line class meetings, you need to submit the indicated materials that demonstrate class preparation in the Discussion Board for each week of our class.* Class participation and preparation accounts for 150 points – or 10 points per class session.

Assignments. You will complete four assignments. Detailed instructions are provided at the course website.

Quizzes. There are quizzes each week **except** weeks when an assignment is due. These quizzes are based on the required readings. The quiz with the lowest grade will be discarded in the final grade calculation.

Topical Schedule Sections 151H & 17GD

Week	Date	Topic	Reading in Textbooks
1	Aug. 22	Science & Scientific Reasoning	
2	Aug. 29	Theory & Science	Preface, glossary, pp. 1-22
3	Sep. 05	Understanding Research Questions	Pp. 23-41
4	Sep. 12	The Nature and Validity of Scientific Conclusions	Pp. 41-72
5	Sep. 19	Types of Samples	Pp. 73-92
6	Sep. 26	Logic of Data Analysis Using Statistical & Qualitative Techniques	Pp. 108, 9, 23, 41, 61 **in Frey**
7	Oct. 03	Implications of Sampling for Scientific Conclusions	Pp. 123-142
8	Oct. 10	Overview of Types of Designs	Pp. Pp. 159-170, 171-186, 197-204
9	Oct. 17	Designs Based on Comparisons with NO Time Component	Pp. 93-110
10	Oct. 24	Designs Based on Comparisons WITH a Time Component	Pp. 111-122
11	Oct. 31	Sampling & Analysis for Observational Designs	Pp. 61-81 **in Frey**
12	Nov. 07	Designs with Interventions: True & Quasi-	Pp. 143-158

13	Nov. 14	Experiments	
13	Nov. 14	Sampling & Analysis for True & Quasi-Experiments	Pp. 23-60 **in Frey**
14	Nov. 21	Case Studies	
15	Nov. 30	Assistance with Assignment 4	
16	Dec. 07	Review of the Design Process	

Bonus Points. Finding, consulting, citing and using published material about research design is an important part of your grade in this course. **Use of the research design literature – beyond required materials – is an evaluation criterion on most assignments.** I provide a list of suggested readings for most topics. You will probably find some excellent materials on your own, too. By sharing this information with your colleagues, you will let your colleagues know about materials that may be of use to them and if your colleagues reciprocate, all of you will have additional references. This sharing is not cheating – it's being smart. There is a one-page form called "Sharing Materials" you can use to share materials. Post the completed form to the discussion board forum called sharing materials. Title the document *YourLastName_LastNameofFirstAuthor_Keyword or phrase that describes the content of interest* (such as explanatory power, qualitative analysis, or retrospective design). You can earn up to 50 bonus points for sharing materials.

How to Complete the Form. Your objective is to provide your colleagues with a clear, concise description of the major points in the article *about research design.* Focus on what you learned about the specific aspect or topic of concern. You can use any kind of article – research reviews, methodological discussions, published literature about a specific topic of concern like sampling, and research reports. **Focus on what you learned about research design, not the results of the study itself,** especially if your review is of a research report. For example, you might find a good discussion of some of the problems with referral (snowball) sampling in a research report about teenage risky behaviors. Perhaps the authors discuss the problems they encountered in some detail and that gave you insights into a sampling issue. In this case, do not focus on the data that they collected and their results. Focus on what you learned about sampling. Be brief. You are giving your colleagues a "heads up" about a good source of materials about research design. They have to decide if they want to consult the material or not. Limit your comments to one page maximum.

University of Florida Policies

Attendance and Make-Up Work
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/ugrad/current/regulations/info/attendance.aspx.

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. These evaluations are conducted online at https://evaluations.ufl.edu. Evaluations are typically open for students to complete during the last two or three weeks of the semester; students will be notified of the specific times when they are open. Summary results of these assessments are available to students at https://evaluations.ufl.edu/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:
http://www.dso.ufl.edu/sccr/process/student-conduct-honor-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 accommodation 0001 Reid Hall, 352-392-8565, **www.dso.ufl.edu/drc/**

Campus Helping Resources
Students experiencing crises or personal problems that interfere with their general wellbeing are encouraged to utilize the university's counseling resources. The Counseling & Wellness Center provides confidential counseling services at no cost for currently enrolled students. Resources are available on campus for students having personal problems or lacking clear career or academic goals, which interfere with their academic performance.

University Counseling & Wellness Center, 3190 Radio Road, 352-392-1575, **www.counseling.ufl.edu/cwc/**

> Counseling Services
> Groups and Workshops
> Outreach and Consultation
> Self-Help Library
> Wellness Coaching

U Matter We Care, **www.umatter.ufl.edu/**

Career Resource Center, First Floor JWRU, 392-1601, **www.crc.ufl.edu/**

Student Complaints
Residential Course: https://www.dso.ufl.edu/documents/UF_Complaints_policy.pdf
Online Course: http://www.distance.ufl.edu/student-complaint-process