

University of Florida
College of Public Health & Health Professions Syllabus
SPA3800: Critical Review of Scientific Evidence (3 credit hours)
Fall 2024
Delivery Format: Campus
Class Day/Time: Monday 9:35-11:30 & Wednesday 10:40-11:30

Instructor Name: Candice J. Adams-Mitchell, SLP.D., CCC-SLP Office Number: HPNP 2125
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Office Hours: Friday 10:30-12:30; or by appointment Preferred
Course Communications: Canvas Email

Prerequisites: STA2023 or more advanced statistics course

PURPOSE AND OUTCOME:

A- Demonstrated skills in oral and written or other forms of communication sufficient for entry into professional practice.

Course Objectives:

Students will be able to:

- Differentiate between the types of questions that can potentially be answered by science and those that can't
- Identify what kinds of information are provided by scientific studies and what constraints exist
- Analyze popular reports of scientific findings for common errors
- Identify common violations of logic and interpretation errors
- Evaluate the challenges for critical analysis in the age of the internet and social media
- Identify the major types of evidence and discuss their strengths and weaknesses
- Describe the relationship between critical thinking and evidenced-based practice
- Demonstrate application of critical thinking skills by analyzing and evaluating controversial topics

Course Structure:

Classes will generally be lecture/discussions of two types: 1) Descriptions of concepts and definitions in science and research; and 2) guest lectures by scientists at various stages in their careers. Both types of lectures are expected to be interactive with plenty of opportunity to ask questions and make comments. In addition, discussion will be continued on the UF elearning system. Students will be asked to comment on the lectures on elearning.

Textbook Requirement: Browne, M., & Keeley, S. (2014). Asking the Right Questions; 11th Edition. (ISBN-13; 9780321907950). Pearson Education; Upper Saddle River, NJ.

Popular press articles as well as other sources (tutorial articles, web pages, etc.) will be posted on elearning. It will be the responsibility of the student to regularly check elearning to see when readings and assignments are available. Students are expected to be well-read, inquisitive, and opinionated regarding the relationship of critical thinking and scientific evidence.

ACADEMIC REQUIREMENTS AND GRADING

Criteria for Evaluation:

Weekly Assignments: Students best learn critical thinking skills by practicing those skills in a variety of contexts using a variety of relevant materials. You will need a great deal of practice, but classroom time is limited. A truism about critical thinking is that it takes time—usually lots of time! Critical thinking, however, is an activity very different from a quick reproduction of stored ideas. While in-class exercises can be very helpful, out-of-class homework assignments provide especially good opportunities for you to engage in deep reflective thought as you practice applying your critical thinking skills. **Weekly assignments should be submitted each Friday before 9:00 AM.**

Weekly Online Discussion Questions: Throughout the semester you will be asked to participate in weekly online discussion posts. These online discussion questions will help facilitate critical thinking goals promoted by each chapter. There will be an average of 4-6 discussion questions posted. You will be required to respond to a minimum of 2 of the original discussion question postings and reply to 2 of your classmates' postings. **All original postings are due each week on Tuesday at noon and all responses to your classmates' postings are due each week on Thursday at noon.**

Final Assignment: Writing a Poster Abstract for PPHP Research Day

Objective:

Students will write a poster abstract that focuses on a controversial issue in the field of speech-language and hearing sciences. This assignment aims to develop students' ability to concisely summarize research, highlight the significance of a topic, and engage with ethical, clinical, or technological debates within the field.

Assignment Description:

You are tasked with writing a poster abstract for the upcoming PPHP Research Day. Your abstract should address a controversial issue related to speech-language and hearing sciences. The abstract should clearly present the issue, outline the key arguments or research findings, and discuss the broader implications for clinical practice, research, or public health.

Steps for Completing the Assignment:

1. Choose a Controversial Topic:

- Select a topic within speech-language and hearing sciences that is currently debated in the field. Examples might include the use of AI in diagnostics, teletherapy in speech-language pathology, ethical concerns in cochlear implant surgery, or the impact of bilingualism on language development.
- Ensure your topic has enough scope for discussion and is relevant to current research or clinical practice.

2. Conduct Preliminary Research:

- Gather relevant literature, including peer-reviewed articles, clinical guidelines, and position statements, to understand different perspectives on your chosen topic.
- Identify key arguments, research findings, and any ethical or clinical dilemmas associated with the issue.

3. Write the Abstract:

- **Title:** Create a concise and informative title that reflects the focus of your abstract.
- **Introduction:** Briefly introduce the topic and explain why it is controversial.
- **Objective:** Clearly state the purpose of your research or the issue you are addressing.
- **Main Body:** Summarize the key arguments or findings related to the issue. Highlight any conflicting viewpoints or significant debates within the literature.
- **Conclusion:** Discuss the broader implications of the issue for clinical practice, research, or public health. Suggest potential solutions or areas for further investigation.

- **Keywords:** Provide 3-5 keywords that encapsulate the main themes of your abstract.

4. Review and Revise:

- Ensure your abstract is concise (approximately 250-300 words), well-organized, and free of jargon. It should be easily understood by both specialists and non-specialists in the field.
- Proofread for clarity, coherence, and grammatical accuracy. Consider peer feedback to refine your abstract.

Submission Guidelines:

- **Format:** Submit your abstract as a Word document or PDF file.
- **Length:** The abstract should be no longer than 300 words, excluding the title and keywords.
- **Deadline:** 11/30/24

PHHP Research Day Abstract Grading Criteria:

Criteria	Exemplary (90-100%)	Proficient (80-89%)	Satisfactory (70-79%)	Needs Improvement (60-69%)	Unacceptable (0-59%)	Points
Topic Selection	Highly relevant, controversial, and well-chosen	Relevant and sufficiently controversial	Topic is somewhat relevant but lacks depth	Topic lacks relevance or controversy	Topic is not suitable for the assignment	20 points
Content and Clarity	Clear, concise, and thoroughly explained	Generally clear with minor areas of ambiguity	Somewhat clear but with notable areas of confusion	Lacks clarity, with several unclear sections	Incoherent or poorly explained	30 points
Argumentation	Well-supported, balanced, and insightful	Supported with good balance and insights	Adequately supported, but lacking depth or balance	Weakly supported with limited insights	Lacks support or insight	30 points
Implications and Conclusion	Thoughtful discussion of implications	Good discussion with minor gaps	Adequate discussion with limited depth	Superficial discussion of implications	No meaningful discussion of implications	10 points
Writing Quality	Exceptionally well-written, error-free	Well-written with minor errors	Acceptably written with some errors	Poorly written with several errors	Very poorly written, difficult to understand	10 points

Total Points: 100

Tips for Success:

- **Be concise:** Avoid unnecessary details; focus on the most important aspects of the issue.
- **Stay objective:** Present balanced arguments, acknowledging multiple perspectives.
- **Engage the reader:** Your abstract should be compelling and make the reader want to learn more about your topic.

The course grade will be determined as follows:

Weekly Assignments	25%
Weekly Online Discussion Questions	25%
Abstract for PPHP Research Day	35%
Class Participation	15%
Total	100%

Point system used (i.e., how do course points translate into letter grades).

<i>% earned</i>	93 - 100	90 - <93	87 - <90	83 - <87	80 - <83	77 - <80	70 - <77	67 - <70	63 - <67	60 - <63	<60
<i>Pts Earned</i>	930 - 1000	900 - 929.9	870 - 899.9	830 - 869.9	800 - 829.9	770 - 799.9	700 - 769.9	670 - 699.9	630 - 669.9	600 - 629.9	0 - 599.9
<i>Letter Grade</i>	A	A-	B+	B	B-	C+	C	D+	D	D-	E

Please be aware that a C- is not an acceptable grade for graduate students. A grade of C counts toward a graduate degree only if an equal number of credits in courses numbered 5000 or higher have been earned with an A. In addition, the Bachelor of Health Science Program does not use C- grades.

Letter grade to grade point conversions are fixed by UF and cannot be changed.

For greater detail on the meaning of letter grades and university policies related to them, see the [Grading and Grade Policies](#) posted by the Registrar’s Office.

Attendance:

This course will be conducted in person on campus, providing an essential opportunity for direct engagement with the material, your peers, and the instructor. Active participation is crucial, as each lecture will be accompanied by quizzes designed to reinforce and assess your understanding of the content. Missing class or failing to participate will directly impact your grade.

Please note that all faculty adhere to the University of Florida's policy regarding excused absences. If you require more detailed information on what constitutes an excused absence, please refer to the Attendance Policies outlined by the Registrar’s Office. Your presence and participation are not only vital for your success in this course but also for enriching the learning experience of the entire class.

Policy Related to Make Quizzes, Assignments, or Other Work

Personal issues with respect to grade or fulfillment of course requirements will be handled on an individual basis.

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with [university policies that can be found in the online catalog from this link](#) unless otherwise noted in this syllabus.

Policy Related to Technical Issues

Any requests for make-ups due to technical issues **must** be accompanied by the ticket number received from the UF Computing Help Desk created when the problem was reported to them. The ticket number will document the time and date of the problem. You **must** e-mail me within 24 hours of the technical difficulty if you wish to request a make-up.

STUDENT EXPECTATIONS, ROLES, AND OPPORTUNITIES FOR INPUT

Expectations Regarding Course Behavior

Etiquette and Professionalism

All members of the class are expected to follow rules of common courtesy in all email messages, class discussions and activities. You are expected to arrive to be on time and to participate any time you attend. Your engagement in class activities will be factored into the appraisal of your professionalism.

Academic Integrity

Students are expected to act in accordance with the University of Florida policy on academic integrity. 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 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 additional information regarding Academic Integrity, please see [Student Conduct and Honor Codes](#) information at the Dean of Students Office website or the [Academic Expectations](#) information at the Graduate School website for additional details. Please remember cheating, lying, misrepresentation, or plagiarism in any form is unacceptable and inexcusable behavior.

Online Faculty Course Evaluation Process

Students are expected to provide feedback on the quality of instruction in this course by completing online [Faculty Course Evaluations](#). Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. [Summary Results](#) of these assessments are available to students.

Guests attending class: Only registered students are permitted to attend class. However, we recognize that students who are caretakers may face occasional unexpected challenges creating attendance barriers. Therefore, by exception, a department chair or his or her designee (e.g., instructors) may grant a student permission to bring a guest(s) for a total of two class sessions per semester. This is two sessions total across all courses. No further extensions will be granted. Please note that guests are **not** permitted to attend either cadaver or wet labs. Students are responsible for course material regardless of attendance. For additional information, please request the Classroom Guests of Students policy in its entirety.

SUPPORT SERVICES

Accommodations for Students with Disabilities

Course Reserves

As mentioned above, this course may utilize the electronic course reserve service offered by the George A. Smathers Libraries. Under the Rehabilitation Act and the Americans with Disabilities Act, students with disabilities have the right to equal access, use and benefit of the course materials that have been placed on reserve in the Libraries.

- Students who have registered with the University of Florida Disability Resource Center should initiate their request for assistance and accommodation in accessing these materials.
- The Center will work with the Libraries Course Reserve Unit to provide accessible course materials
- All information submitted by the student to the Libraries in fulfilling the request for accommodation will be kept confidential.

Counseling and Student Health

Students sometimes experience stress from academic expectations and/or personal and interpersonal issues that may interfere with their academic performance. If you find yourself facing issues that have the potential to or are already negatively affecting your coursework, you are encouraged to talk with an instructor and/or seek help through University resources available to you.

[The Counseling and Wellness Center](#) (352-392-1575) offers a variety of support services such as psychological assessment and intervention and assistance for math and test anxiety. Online and in person assistance is available.

If you are feeling overwhelmed or stressed, you can reach out for help through the [You Matter We Care](#) website, which is staffed by Dean of Students and Counseling Center personnel.

The Student Health Care Center at Shands is a satellite clinic of the main Student Health Care Center located on Fletcher Drive on campus. Student Health at Shands offers a variety of clinical services. The clinic is located on the second floor of the Dental Tower in the Health Science Center. For more information, contact the clinic at 392-0627 or check out the [Student Health Care Center](#) website. Crisis intervention is always available 24/7 from the [Alachua County Crisis Center](#) at (352) 264-6789.

Do not wait until you reach a crisis to come in and talk with us. We have helped many students through stressful situations impacting their academic performance. You are not alone so do not be afraid to ask for assistance.

INCLUSIVE LEARNING ENVIRONMENT *(Optional)*

Public health and health professions are based on belief in human dignity and on respect for the individual. As we share our personal beliefs inside or outside of the classroom, it is always with the understanding that we value and respect diversity of background, experience, and opinion, where

every individual feels valued. We believe in, and promote, openness and tolerance of differences in ethnicity and culture, and we respect differing personal, spiritual, religious and political values. We further believe that celebrating such diversity enriches the quality of the educational experiences we provide our students and enhances our own personal and professional relationships. We embrace the University of Florida's Non-Discrimination Policy, which reads:

“The University shall actively promote equal opportunity policies and practices conforming to laws against discrimination. The University is committed to non-discrimination with respect to race, creed, color, religion, age, disability, sex, sexual orientation, gender identity and expression, marital status, national origin, political opinions or affiliations, genetic information and veteran status as protected under the Vietnam Era Veterans’ Readjustment Assistance Act.”