Instructor Information:
Emily K. Plowman, PhD, CCC-SLP
Associate Professor
Email: eplowman@ufl.edu
Office: HPNP 2130
Website: www.arc.phhp.ufl.edu

Class Time:
- **Monday** 8am – 12:15pm  Location: Zoom Online
- **Wednesday** 8am – 12:15pm Location: Zoom Online
- 8 – 9am: dedicated study time to work on assignments individually or with team.

TA Office Hours: By appointment

Course Overview:
This course is designed to introduce Speech-Language Pathology graduate clinicians to the importance and role of research and evidence-based medicine in your future clinical practice. This course provides a broad overview of the scientific method, ethical considerations in research, principles of measurement, reliability and validity of clinical measurement and testing procedures, formulation of a testable research question, how to conduct a literature review in PubMed, how to setup and use an electronic reference management system, evaluating components of a research article, research design, hypothesis testing, p-values, how to make sense of statistics, data analysis and appraising levels of evidence. **My goal is for you to become an informed consumer of clinical research** so that you are empowered to critically appraise clinical research in your area when you practice your craft!

Learning Objectives:
This course is designed to provide a knowledge and skills acquisition (KASA) experience for students who are preparing to apply for the Certificate of Clinical Competence (CCC) in Speech-Language Pathology or Audiology from the American Speech-Language-Hearing Association (ASHA). A student must achieve 75% accuracy on each of the summative assessments to demonstrate minimum competency for KASA Standard IV-F. These
accomplished practices are detailed in the ASHA Standards and Implementations for the Certificates of Clinical Competence in Speech-Language Pathology and Audiology.

Upon completion of this course, you will be able to:

1. Understand the ethical conduct of researchers with clinical populations (KASA Standard IV-E).
2. Review, read, and critically evaluate research reports (KASA Standard IV-F, A18).
3. Demonstrate a fundamental knowledge of research methodology (KASA Standard IV-F, A18). This includes being able to identify independent and dependent variables in published research reports, identify a gap in knowledge or clinical care and formulate a testable research aim and hypothesis (KASA Standard IV-F, A18).
4. Identify and justify designs appropriate for different research questions (KASA Standard IV-F, A18).
5. Discuss advantages and disadvantages of group and single-subject experimental strategies (KASA Standard IV-F, A18).
6. Conduct a literature review in PubMed (or other sites of choice) to obtain a complete list of readings in a chosen area of interest (KASA Standard IV-F, A18).
7. Use a citation software program to cite relevant literature and create a bibliography (KASA IV-F, A18).
8. Orally present an overview / critically appraisal of the evidence behind a specific treatment in communication sciences and disorders (KASA Standard IV-F, A18).
9. Actively participate in critical discussions about strengths, weaknesses and implications of peer-reviewed articles in communication sciences and disorders (KASA Standard IV-G, A18).
10. Critically evaluate research literature using evidence-based practice procedures to determine relevance and application to clinical practice across a variety of disorders and ages (KASA Standard IV-G, A18).

Required Course Materials and Technology:

- IMPORTANT: In accordance with the University of Florida College of Public Health and Health Professions graduate student requirements - you are responsible and expected to have a laptop or tablet with internet capabilities to attend each class via the Zoom platform, to access the class Canvas site materials, and to take the final exam. This will be your responsibility. Please plan ahead! You know class times and due dates for assignments and your final exam. Please no excuses, we have built in extra accommodations for dedicated time thirty minutes before each class and during class to work on assignments individually or with team members to reduce stress and additionally opened up a three-day period to take your final exam. Please be a problem solver and plan ahead and only contact Justine if there is an absolute emergency!
- You will not be required to purchase any text books for this course. We will provide you with weekly reading materials that will be uploaded to the e-learning canvas site.
- For technical support for this class, please contact the UF Help Desk (https://lss.at.ufl.edu/help.shtml) at: Learning-support@ufl.edu (email) or (352) 392-HELP - select option 2 (phone).

Course Content:
Please see the separate uploaded detailed course schedule on canvas. The individual Canvas Modules contain all class materials that include: overview, lecture handouts, module objectives, in class activities and assignments (https://ufl.instructure.com/courses/396775).
ACADEMIC REQUIREMENTS AND GRADING:

Requirements:
Course requirements include in class assignments, a presentation and final examination. Weightings for your final grade and due dates of each requirement are detailed below.

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Date:</th>
<th>Weighting</th>
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<tbody>
<tr>
<td>In Class Assignments</td>
<td>Each class</td>
<td>30 Points</td>
</tr>
<tr>
<td>Presentation</td>
<td>June 2, 2021</td>
<td>20 Points</td>
</tr>
<tr>
<td>Final Exam</td>
<td>June 9, 2021</td>
<td>50 Points</td>
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</table>

In Class Assignments: (30%)
A total of ten in class assignments will be completed, each worth 3 points of your final grade. Assignments are intended to represent a practical application of theoretical information discussed in the lecture to aide your learning and to also make class more interactive and interesting!

Time will be allotted during class (typically the last hour of class will be for you to work on your daily assignment) in addition to thirty minutes prior to class (8:00-8:30am). We do not anticipate you needing to spend time completing assignments outside of the allotted class time if you work efficiently or complete the activity as you are watching the assigned presentation, documentary, etc. *Assignments will typically be completed online in the Canvas e-learning platform and due by midnight of the day of class* (we suggest you upload at the end of class). As an FYI - Many assignments will contribute to your final presentation.

Final Project (20%)
A practical final project will be completed that will apply your learning in an oral and written document to the class. Two different options have been designed for clinical master’s students who are not doing a research thesis (option 1) and students who are doing a thesis (option 2). Although not recommended, if you are a non-thesis student and feel strongly that you would like to do Option 2 – we will allow this if you make an appointment with Justine to discuss! **Tip:** Knowing your research topic early will benefit you during the literature review and reference list assignments.

**Option 1 – Non-Thesis Students:**
If you choose the regular Masters SLP team Project - In groups of up to four students (choose people with similar clinical interests and schedule), select either a treatment approach or assessment / screening technique currently utilized in the field of Speech-Language Pathology. As a group, you will critically evaluate the evidence to support the use of this treatment or assessment tool on June 2, 2021.

The presentation will contain the following components:
- Description of Treatment / Assessment Approach
- Theoretical and Physiologic rationale for treatment approach (if applicable)
- Who the assessment or treatment is applied, When, Why and How?
- Review of the Evidence to support (or not support) it’s use in the field of Speech-Language Pathology
- EBM summary table - rate levels of evidence for supporting data (part of your in class assignment)
- Your appraisal of the current evidence for your chosen treatment.
- Your recommendations for future research directions, what is needed to advance the field and meet requirements of evidence-based practice.
You will submit a list of your literature review papers and your evidence-based table before or on the day of your presentation (both part of your in-class assignments).

Your talk needs to be **fifteen minutes** and contain less than 20 slides. Strict adherences to this time limit will be enforced, and you will be asked to stop at 15 minutes and rated on only materials included within the 15-minute time frame (therefore please time and practice your talk). You are encouraged to meet with Justine throughout the semester for guidance during office hours or by appointment.

Suggested examples include: Constraint-Induced Language Therapy (CILT), Melodic Intonation Therapy (MIT), electrical stimulation therapy, Expiratory Muscle Strength Training (EMST), Lee Silverman Voice Treatment (LSVT), Frazier Free Water Protocol. Other treatments of your choice may be studied with the approval of Dr. Plowman and Justine. Justine will be available to meet with your team throughout the semester and to review slides or your evidence table for feedback if submitted at least 7 days prior to your presentation.

**Option 2 – Thesis Students:**

SLP Thesis students can decide to participate in the group assignment above OR to complete an individual project intended to help you with your final thesis presentation. If you choose the individual option – you will present to the class a succinct summary of their research project. This is meant to be a practical and helpful assignment to get you ready for your future research project. It is highly recommended that you start this EARLY in the semester and that you meet with your research mentor before or during the first week of class to formulate a topic so that you can complete each lab assignment in this area to work easily towards this final presentation. Each student will present in fifteen minutes or less the following:

1. Background (prevalence, cause and why should we care!)
2. Clinical Gap in Care or Knowledge Gap Statement (what is not known or a barrier to best clinical care)
3. Aims
4. Hypothesis
5. Methods of project and timeline
6. Expected outcomes

**Final Exam (50%):**

An exam will be completed at a time of your choice between 8am August 10th and 12pm August 12th. Questions will consist of multiple choice, true/false, matching, labeling diagrams, fill in the blank, etc. Questions will be based off the lectures and come from the learning objectives. We suggest you make study notes based from your learning objectives from each class and should do well if you know this content.

The exam will be taken via E-Learning using the Honor Lock system. Students are expected to use their own technology and plan accordingly for no technical errors ahead of time. We are also giving you the opportunity to choose when you wish to take the exam rather than one time slot to help with any potential issues, and we suggest you don’t leave it to the last minute so that there is time needed should any issues arise!
Class time will be divided into 3 sections:
1) **Lecture**: live lecture with Dr. Plowman (9am typically til 11am)
2) **Watch**: a short tutorial to enhance your learning (8am-9am)
3) **Complete**: Class assignment - you will be given time to complete during class (~11am-12:15pm).

Tentative schedule is as follows:

<table>
<thead>
<tr>
<th>Format:</th>
<th>Lecture:</th>
<th>Assignment:</th>
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</table>
| **Module 1 5/10/2021** | 1. What is Research?  
Lecture: 2. Ethical Considerations in Research: The Good, The Bad, The Ugly  
Watch: Stanford Prison, Tuskegee, Monster Study, Henrietta Lacks Videos  
Complete: Assignment 1 | 1. Research Reflections  
2. Reflections on Science Gone Bad |
| **Module 2 5/12/2021** | 3. Fundamentals of Measurement Scales  
Lecture: 4. Reliability and Validity of Measurement  
Lecture: 5. Formulating the Research Question  
Watch: How to Conduct a Literature Review in Pub Med Tutorial  
Complete: Assignment 2, 3, 4 | 3. What measurement scale is this?  
4. Reliability Ratings  
5. Types of Variables |
| **Module 3 5/17/2021** | 6. Searching for Evidence  
Lecture: 7. Evaluating the Research Article  
Lecture: 8. Citation Manager Software Tutorial (Dallal York)  
Watch: Endnote Tutorial  
Complete: Assignment 5 & 6 | 6. Pub Med Lit' Search Results  
7. Building a Citation Library & Generating Bibliography |
| **Module 4 5/19/2021** | 9. Systematic Reviews & Meta-Analysis  
Lecture: 10. Research Design Part 1  
Watch: Short Tutorial's on Canvas  
Complete: Assignment 7 & 8 | 8. Cochrane Systematic Review.  
9. Research Designs from Lit Revie |
| **Module 5 5/24/2021** | 11. Research Design Part 2  
Lecture: 12. Levels of Evidence  
Lecture: 13. "Tips for Giving a Great Presentation"  
Complete: Assignment 9 | 10. Literature Review Summary Tables.  
(due 5/26/21) |
| **Module 6 5/26/2021** | 14. Making Sense of Statistics in Research  
Lecture: 15. Correlations and Predictions and Group Analyses  
Complete: Work on Group Assignments | Dedicated time to work on Group Assignments |

31-May

*Memorial Day Weekend (No Class!)*

2-Jun

*Evidence Based Review Presentations (20% of grade)*

9-Jun

*Final Exam (worth 50% final grade)*

Class Assignments each worth 3% of class grade & total 30% of your final grade.
Grading:
Final grades will be based on your composite score out of 100. The specific grading rubric is as follows. Please note, no rounding will occur. More information on UF grading policy can be found at:
http://gradcatalog.ufl.edu/content.php?catoid=10&navoid=2020#grades

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<th>Grade Points</th>
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<td>93-100</td>
<td>A</td>
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<tr>
<td>90-92.99</td>
<td>A-</td>
<td>3.67</td>
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<tr>
<td>87-89.99</td>
<td>B+</td>
<td>3.33</td>
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<tr>
<td>83-86.99</td>
<td>B</td>
<td>3.0</td>
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<tr>
<td>80-82.99</td>
<td>B-</td>
<td>2.67</td>
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<tr>
<td>77-79.99</td>
<td>C+</td>
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<tr>
<td>73-76.99</td>
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<tr>
<td>70-72.99</td>
<td>C-</td>
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<tr>
<td>67-69.99</td>
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<td>63-66.99</td>
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<tr>
<td>60-62.99</td>
<td>D-</td>
<td>0.67</td>
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Policy Related to Make up Exams or Other Work:
If you miss any exams, quizzes or requirement deadlines, you will forfeit these points unless you have a validated medical issue. Any requests for make-ups due to technical issues MUST be accompanied by the ticket number received from LSS when the problem was reported to them. The ticket number by the UF Computing help desk (http://helpdesk.ufl.edu/) correspondence will document the time and date of the problem. You MUST e-mail the TA immediately of the technical difficulty at the time of the incident if you wish to request a make-up.

Policy Related to Required Class Attendance:
Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx
Excused absences must be consistent with university policies in the Graduate Catalog (http://gradcatalog.ufl.edu/content.php?catoid=10&navoid=2020#attendance). Additional information can be found here: https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

Online Faculty Course Evaluation Process:
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.blueracom/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.
STUDENT EXPECTATIONS, ROLES, AND OPPORTUNITIES FOR INPUT

Expectations Regarding Course Behavior:
You are expected to actively engage in the course throughout the semester. You must come to class prepared by completing all out-of-class assignments. This preparation gives you the knowledge or practice needed to engage in higher levels of learning during the live class sessions. If you are not prepared for the face-to-face sessions, you may struggle to keep pace with the activities occurring in the live sessions, and it is unlikely that you will reach the higher learning goals of the course. Similarly, you are expected to actively participate in the live class. Your participation fosters a rich course experience for you and your peers that facilitate overall mastery of the course objectives.

Communication Guidelines:
An open-line of communication is encouraged via e-mail and office hours. Please set up appointments for any extensive issues.

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. Please remember cheating, lying, misrepresentation, or plagiarism in any form is unacceptable and inexcusable behavior. For additional information regarding Academic Integrity, please see Student Conduct and Honor Code or the Graduate Student Website for additional details:
https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/ and
http://gradschool.ufl.edu/students/introduction.html

Policy Related to 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 review the Classroom Guests of Students policy in its entirety. Link to full policy:
http://facstaff.phhp.ufl.edu/services/resourceguide/getstarted.htm
SUPPORT SERVICES

Accommodations for Students with Disabilities:
Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the Disability Resource Center by visiting https://disability.ufl.edu/students/get-started/. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester. The College is committed to providing reasonable accommodations to assist students in their coursework.

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. 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.

- 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. Visit their web site for more information: http://www.counseling.ufl.edu. Online and in person assistance is available.
- You Matter We Care website: http://www.umatter.ufl.edu/. 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 web site at: https://shcc.ufl.edu/
- Crisis intervention is always available 24/7 from the Alachua County Crisis Center:(352) 264-6789 http://www.alachuacounty.us/DEPTS/CSS/CRISISCENTER/Pages/CrisisCenter.aspx

Inclusive Learning Environment:
Public health and health professions are based on the 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.” If you have questions or concerns about your rights and responsibilities for inclusive learning environment, please see your instructor or refer to the Office of Multicultural