I. **COURSE TITLE:** Research Methods in Speech-Language Pathology and Audiology.

II. **CATALOG DESCRIPTION:** A review of experimental procedures and designs that have relevance to special education populations. Special emphasis will be given to those skills (understanding, assumption, reading and abstracting articles, interpreting data, and evaluating results) needed to understand the relationships between research strategies, clinical problem solving and the assessment of clinical effectiveness in speech-language pathology.

III. **PURPOSE:** This course is designed to acquaint the student with the basics of research design and statistics as they apply to current research issues in speech-language pathology.

IV. **COURSE OBJECTIVES:** Following completion of this course, students will demonstrate:

   A. Knowledge of the major journals/indexes necessary to critically read and conduct research in special education (4,5,6,7).

   B. The ability to develop an annotated bibliography when given a research topic in special education (4,5,6,7).

   C. Knowledge of the steps necessary to complete a literature review and other components necessary to develop a research plan(4,5,6,7).

   D. Knowledge of procedures for conducting research with small samples including single case studies (4,5,6,7).

   E. Knowledge of the qualitative/quantitative strengths and weaknesses of individual research designs based on the internal/external validity model (4,5,6,7).

   F. Knowledge of sampling techniques and necessary requirements for sample size in group designs (4,5,6,7).
G. Knowledge of common statistical procedures such as t-test, chi square, descriptive statistics, ANOVA, and correlation, necessary to interpret and conduct simple research (4,5,6,7).

H. The ability to use several commercially packaged applications for computer assisted analysis of statistical data (4,5,6,7).

**CONTENT OUTLINE**
Introduction, syllabus

**Fundamentals:** research as a discipline, tools of research, library resources, computer applications, measurement, statistics, communication skills

**Organization:** identifying the problem, literature review, research plan, research proposals, scientific method

**MIDTERM EXAMINATION**

**Research Methods:** qualitative designs, quantitative designs, single subject procedures; experimental and non-experimental, quantitative methods, statistics

**Research Reports**

**FINAL EXAMINATION**

VI. **INSTRUCTIONAL ACTIVITIES:** The class format will be lecture/discussion oriented to students' integration of course information, scientific principles of observation and measurement, problem solving strategies, etc. Extensive use will be made of audiovisual materials, and multimedia computer tools to demonstrate the application of problem solving strategies and basic research issues.

VII. **FIELD AND CLINICAL EXPERIENCES:** None.

VIII. **RESOURCES:** Assigned readings, facilities of the MSU Speech and Hearing Clinic and Communication Disorders Speech Science Laboratory, audio, video and textual resources in the Communication Disorders Materials Room, and the MSU Waterfield Library, facilities of the MSU Blackboard system, Internet-based demonstrations, tutorials and tools. It is strongly suggested that students investigate the professional and academic resources posted in the “Great Links” section of http://mick.murraystate.edu.

IX. **GRADING PROCEDURES:** Student learning will be evaluated through a series of scheduled and unscheduled activities: Scheduled assessments will include two essay examinations, a Midterm Examination and a Final Examination, each weighted at 25% of the course grade. In addition, Classroom Participation, and a formally presented, written, Research Proposal will each be weighted at 25% of the course grade. Classroom participation will include a number of equally weighted group activities, reflective writings and quizzes. The Research Proposal project should be
of appropriate quality as to meet portfolio expectations for the division of Communication Disorders. The final grade will be based on the following grading scale:

\[ A=90\%-100\%, \ B=80-89\%, \ C=70-79\%, \ D=60-69\%, \ E=0-59\% \]

X. ATTENDANCE POLICY: This course adheres to the policy published in the MSU Graduate Bulletin.

XI. ACADEMIC HONESTY POLICY: Cheating, plagiarism (submitting another person’s material as one’s own), or doing work for another person who will receive academic credit are all impermissible. This includes the use of unauthorized books, notebooks, or other sources in order to secure or give help during an examination, the unauthorized copying or examinations, assignments, reports, or term papers, or the presentation of unacknowledged material as if it were the student’s own work. Disciplinary action may be taken beyond the academic discipline administered by the faculty member who teaches the course in which the cheating took place. Note: Faculty reserve the right to invalidate any examination or other evaluative measures if substantial evidence exists that the integrity of the examination has been compromised.

Text:


References:


XII. **PREREQUISITES**: Graduate Standing in Speech-Language Pathology or permission of the instructor.

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1 Numbers in parentheses indicate components of the Murray State University College of Education Conceptual Framework that are addressed by the course objectives.