Basic Methods in Education Research

ERMA 7200

3 credit hours

Course Syllabus – Spring 2018

**Instructor:** David T. Marshall, Ph.D.

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**Office Hours:** Wednesdays 1:15-2:30pm by appointment

Thursdays 11:00-12:15pm by appointment

**Meeting Time and Space:**

Tuesdays 5:00-7:50pm – 2438 Haley Center

**Course Description and Objectives**

**Research is the open pursuit of knowledge.**

**Our aim is to learn something beyond what *we thought we knew* before we began.**

The purpose of this course is to provide students with a conceptual understanding of the basic concepts and procedures in educational research. Students will learn to read and evaluate research and plan an empirical study. The emphasis of the course is on the methodology and evaluation of educational research, and will require a minimum of computational skills. The fundamental research principles are applicable to other fields of study as well. No prerequisite courses are required. Specifically, course objectives include student attainment of the following:

1. An understanding of quantitative, qualitative, and mixed methods approaches to research.
2. Knowledge of basic, applied, and evaluation research.
3. Ability to select a research problem and formulate appropriate research questions and hypotheses.
4. Ability to conduct a review of educational literature using electronic databases.
5. Identification of independent, dependent, confounding, and extraneous variables.
6. Knowledge of sampling procedures.
7. Knowledge of fundamental principles of measurement and data collection techniques.
8. An understanding of descriptive statistical techniques such a measures of central tendency, standard deviation, and correlation.
9. Knowledge of non-experimental, experimental, and quasi-experimental research designs.
10. Knowledge of basic inferential statistical logic and procedures.
11. Ability to critically read and evaluate empirical research.
12. Development of a positive attitude toward the use of research in education.

**Texts**

**Required**

There is only one required text for this course. Other readings will be assigned and provided as needed.

McMillan, J.H. (2015) *Educational research: Fundamentals for the consumer*. Seventh Edition. Boston: Pearson Education.

ISBN-10: 0134013492; ISBN-13: 978-0134013497.

**Recommended**

American Psychological Association. (2009). *Publication manual of the American Psychological*

*Association (*6th ed.). American Psychological Association.

## Course Activities and Deliverables

**Research Proposal**

Each student will prepare a quantitative research proposal. This will be the primary deliverable for the course. The research proposal is designed to offer students the opportunity to apply what has been learned in the course. Students do not have to carry out the study that they propose for this course; there is not enough time in the space of a semester for this to be a practical requirement.

The proposal assignment will include: 1) identification of a researchable problem; 2) review of related research; 3) research question and hypothesis; 4) research design including sample, measurement, and procedures; 5) procedures for interventions and/or gathering data; 6) data analysis plan; and 7) limitations.

The paper will be completed in three parts. Students are allowed one revision per part to improve their work. Students will present their work on the final day of class. There will also be a peer review component to the research proposal assignment. In advance of the due dates for the first two parts of the proposal, students will be required to submit rough drafts to a peer, and their peer will be required to provide feedback on their draft.

Unless otherwise instructed, all assignments related to the research proposal are due by 11:59pm on the date posted.

**Class Attendance**

Excellent attendance is expected. If you are not going to be able to attend class, it is your responsibility to inform the instructor and obtain notes from another student.

**Homework**

Homework is a part of expected preparation for class. The assignments given are precursors to class discussions and other activities. These will be posted a week in advance of their due date. Unless otherwise instructed, all homework assignments are due by the start of class on the date posted.

**CITI Training**

The Collaborative Institutional Training Initiative (CITI) offers training in conducting ethically sound research. Most institutions of higher learning, including Auburn University, require individuals to be up-to-date with their CITI training in order to conduct research. **You should not pay anything additional to complete this. Auburn University has already paid for this.** For this course, you will be required to:

1. Register with CITI at [www.citiprogram.org](http://www.citiprogram.org)
2. Choose to register as a member of an affiliated organization; type in Auburn University.
3. Complete the Responsible Conduct of Research course – Social and Behavioral Research (the one for AU personnel).
4. Complete an additional Human Subjects Research course that is relevant to your research interests.
5. Email your certificates of completion to me by February 6, 2018. Completion of CITI training is required and will be considered a Homework grade.

**Grading Procedure**

The grading procedure is criterion-referenced, that is, grades are determined by performance as compared to standards. Grades will be determined by the following weights:

Research Proposal

Problem Statement 5%

Literature Matrix 5%

Part 1 15%

Part 2 15%

Part 3 15%

Presentation 10%

Class Activities & Homework 35%

**Grading Scale**

100 - 90 A

89.99 – 80 B

79.99 – 70 C

69.99 – 60 D

59.99 and below F

**Late Assignments Policy**

All assigned work is expected to be received by start of class on the date it is due. Open communication is the key. If you have a situation that interferes with your ability to complete an assignment on time, it is your responsibility to contact the instructor as soon as you are aware of this. Life happens, and individual circumstances will be taken into consideration. Homework assignments are the one exception to the late work policy. In order to receive credit, they must be received prior to the start of class. Any credit given for late homework is at the instructor’s discretion.

Assigned work that is turned in late will receive a reduction of 5 points per day. The only exceptions will be documented emergencies and situations approved with the instructor in advance of the due date. All work is expected to be typed. The late penalty will be applied to work completed in writing and then turned in late in a typed format.

**Incompletes and Withdrawals**

Grades associated with incomplete course work or withdrawal from class will be assigned in strict conformity to University policy (see Auburn University Bulletin). If you wish to drop this course you may do so by the 10th class day with no grade assignment. From the 10th day of class to mid-quarter a W (withdrawn-passing) grade will be recorded in your transcripts. After this period withdrawal from the course will only be granted under unusual circumstances and must be approved by the Dean of the College of Education.

Note that a new incomplete grade (IN) policy is in effect. The new policy requires that students complete a form requesting an IN grade be assigned. If this form is not completed and given to the instructor of the class, a grade will be assigned with a score of zero (0) for work that has not been completed and turned in by the time the instructor reports grades.

**Academic Misconduct**

The Department of Educational Foundations, Leadership, and Technology recognizes university policy regarding academic misconduct. Violations include, but are not limited to: plagiarism, unauthorized assistance during examinations, submitting another’s work product as your own, using another’s words as your own without appropriate citation, sharing unauthorized materials with another that contain questions or answers to examinations, altering or attempting to alter assigned grades. In accordance with University policy regarding academic misconduct, students may be assigned several sanctions upon violations of the Student Academic Honesty Code. See the Tiger Cub publication for the current year for specifics regarding academic misconduct as well as student’s rights and responsibilities associated with the Code.

**Disability Accommodations**

Students who need special accommodations in class, as provided for by the American Disabilities Act, should arrange a confidential meeting with the instructor during office hours in the first week of classes, or as soon as possible if accommodations are needed immediately. You must bring a copy of your Accommodation Memo and an Instructor Verification Form to the meeting. If you do not have these forms but need accommodations, make an appointment with the Program for Students with Disabilities, 1244 Haley Center, 844-2096.

**Tentative Schedule**

This represents a tentative schedule of the assignments and activities for the semester. This schedule is subject to change. Assignments and activities may be added to the schedule per the needs of the learning community. The third column represents the readings, assignments, and activities to be completed by the date listed.

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| --- | --- | --- |
| **DATE** | **TOPIC(S)** | **TO BE COMPLETED** |
| January 16 | Course introduction;  The nature of research | * None |
| January 23  **Meet in RBD Library entrance** | Reviewing relevant research | * McMillan Ch. 1 & 4 * Come to library with topic of interest |
| January 30 | Ethics in research;  Parts of research reports;  Research problems and questions | * McMillan Ch. 2 * Problem statement due |
| February 6 | Research problems and questions;  Sampling | * McMillan Ch. 3 & 5 * CITI training must be complete * Homework 1 due * Research topic must be approved |
| February 13 | Measurement | * McMillan Ch. 6 * Homework 2 due |
| February 20 | Non-experimental designs | * McMillan Ch. 7-8 |
| February 27 | Peer revision  **No class meeting** | * Rough draft due to peer review partner; email to partner and post in Canvas |
| March 2 | Peer revision | * Peer review due to partner; email and copy instructor |
| March 6 | Experimental designs | * McMillan Ch. 9 * Research proposal part one due by 11:59pm * Peer review reflection due |
| March 13 | **Spring Break**  **No class meeting** | * None |
| March 20 | Inferential statistics | * McMillan Ch. 10 * Homework 3 due * Part one revisions due |
| March 22 | Peer revision | * Rough draft due to peer review partner; email to partner and post in Canvas |
| March 25 | Peer revision | * Peer review due to partner; email and copy instructor |
| March 27 | Qualitative research design | * McMillan Ch. 11-12 * Research proposal part two due by 11:59pm |
| April 3 | Qualitative research design | * Transcriptions due by start of class * Qualitative research project due by end of class |
| April 10 | Mixed methods | * McMillan Ch 13. * Ercikan & Roth article * Part two revisions due |
| April 12 | Research proposal | * Research proposal part 3 due by 11:59pm |
| April 17 | Qualitative research; Mixed methods | * Guest lecture:   Dr. David Naff, VCU   * Homework 4 due |
| April 24 | Research proposal | * Research proposal presentations |
| April 29 | Course wrap-up | * Part three revisions & Final paper due |

**Course Expectations**

Course expectations were co-constructed during class on January 16, 2018 through a class discussion. Expectations for students, the instructor, and for the community at large are included in this space. These can be updated as needed throughout the semester.

**Expectations for the instructor**

* Provide constructive feedback
* Return assignments within 7 days
* Respond to emails within 48 hours
* Be clear about expectations for work

**Expectations for the students**

* Complete assigned readings
* Give a sincere effort
* Inform the instructor when expectations are unclear

**Expectations for everyone**

* Respect each other as individuals
* Respect each other’s time
* Be open-minded
* Learn from ideas that are different from our own
* Active participation and engagement
* Limited phone use