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**Special Topic Seminar in Research Methods**

Spring 2022 Semester

Campus 1: Face-to-Face

**Instructor Information**

**Name:** B. Parker Ellen III, Ph.D.

**Office:** 302Y McCool Hall

**Hours:** by appointment

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**Course Description**

Doctoral seminar. 3 credit hours. The course will focus on the design, analysis, and writing of original research for publication in peer reviewed, academic journals in organizational sciences and related disciplines.

**Course Overview**

This seminar course is designed to prepare Ph.D. students to undertake original scientific research in management and related disciplines. Throughout the course, we will cover a range of topics relevant to the design and execution of empirical studies. We will incorporate a mix of formats, including lecture, discussion, and demonstrations of concepts. In addition to content knowledge about design and analyses, students will gain hands-on experience analyzing data with some of the more widely used methods in the organizational sciences.

**Learning Objectives**

Many of the individual topics we will cover could be the subject of a semester-long course on their own. As a result, this course is designed to provide students with broad exposure to a variety of design and analyses topics related conducting and reporting empirical research, rather than develop an in-depth expertise in any specific area. By the end of the semester, students will have had the opportunity to learn to:

1. recognize the strengths and weaknesses of research designs and analytic methods
2. identify appropriate methodological techniques for different research questions
3. use different analytic methods on actual data via statistical software
4. write method and results sections appropriate for top business journals
5. evaluate the methodological and analytical approaches of other researchers

**Course Topic Outline**

1. Introduction to empirical research
2. Design, sampling (and questionnaires)
3. Foundations of analysis and reporting
4. Measurement: reliability and validity
5. Correlation & ANOVA
6. Multiple regression: the basics and relative weight analyses
7. Moderation, mediation, and moderated-mediation
8. SEM I: specification, identification, and measurement models
9. ***Spring Break***
10. SEM II: path analysis vs. structural models
11. Multilevel modeling
12. Panel data
13. Meta-analysis
14. Qualitative research
15. Missing Data
16. Exam

*NOTE: I am still finalizing dates for guests to join us. So, the order of topics (especially towards the end of the semester) is subject to change based on their availability.*

**Required Texts**

Schwab, D. P. (2005). *Research methods for organizational studies* (2nd ed.). Mahwah, NJ: Erlbaum.

Lance, C. E., & Vandenberg, R. J. (Eds.) (2009). *Statistical myths and methodological urban legends: Doctrine, verity and fable in the organizational and social sciences*. New York: Routledge.

Lance, C. E., & Vandenberg, R. J. (Eds.). (2014). *More Statistical and Methodological Myths and Urban Legends: Doctrine, Verity and Fable in Organizational and Social Sciences*. Routledge.

*NOTE: Specific chapter assignments, as well as additional articles, will be posted to Canvas for each wee.*

**Hardware and Software Requirements**

You will need access to a computer that conforms to the College of Business Computer Specifications. These specifications are available at its.msstate.edu. The primary software needed for this course is a web browser, and an internet connection. We will be analyzing data using several different software applications. Some of these (e.g., SPSS) are available through the university. Others (e.g., Mplus) are available as trial versions. NOTE: DO NOT download the trial version until you are ready to complete the homework (after the associated lecture). I will let you know when you should download the trial version. Timing is critical here so that you can complete the homework before the trial expires.

**Some Other Relevant Texts**

(if you decide you want to go deeper on a particular topic)

Bollen, K. A. (1989). Measurement models: The relation between latent and observed variables. *Structural equations with latent variables*, 179-225.

Cohen J., Cohen P., West, S.G., & Aiken, L.S. (2003). *Applied multiple regression/correlation analysis for the behavioral sciences*. Mahwah, NJ: Erlbaum.

Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.

Kline, R. B. (2011). *Principles and practice of structural equation modeling*. New York: Guilford Press.

Raudenbush, W. W., & Bryk, A. S. (2002). *Hierarchical linear models: Applications and data analysis methods*. Thousand Oaks, CA: Sage.

**Assessment of Learning**

Learning in this course will be assessed on the basis of your performance in the following areas:

**Class preparation and participation (40%).** You will be evaluated on the basis of how prepared you are for classes and the frequency and quality of your in-class contributions. As such, you should come to class having completed and thought about the assigned readings, as well as any homework assignments. During class, I expect you to show initiative and effort, bringing up issues from the readings and activities for discussion, and voicing your thoughts, ideas, and concerns. The overall goa l will be to establish an active, comfortable, and creative environment in which we can all learn from each other.

**Homework (30%)**. You will have a homework assignment almost every week. At the end of each class session, the homework assignment(s) will be presented. For most assignments, you will be asked to conduct analyses on a common dataset provided by me to the class. You will then write up your results as if you were attempting to publish them (e.g., write the results section, create a table and/or figure, etc.). Your “paper” must adhere to guidelines set forth by a top journal in your field (e.g., *Academy of Management Journal, Entrepreneurship Theory & Practice,* *Information Systems Research, Journal of Applied Psychology, Journal of Marketing*, *Strategic Management Journal,* etc.). In addition to learning by doing, completing these assignments means that you will have templates of results section for each method covered during the semester. Papers will be graded on the following five-point scale (note that the descriptions are for convenience only and you will not be expected to “revise” assignments).  
 *5 = accept  
 4 = accept with minor revision  
 3 = promising that a major revision would result in a publishable paper  
 2 = doubtful that a major revision would result in a publishable paper  
 1 = reject*

**Final exam (30%)**. An exam that tests topics covered throughout the semester will be given at the end of the semester. The exam will require you to conduct a formal review (as if for a top journal) of the method section of a research paper, identifying its strengths and weaknesses based, and making recommendations for improvements based on what you have learned throughout the semester.

Final course grades will be calculated as a percentage of total points earned and will be based upon the scale below.

**Grading scale:**

|  |  |
| --- | --- |
| 90-100: | A |
| 80-89: | B |
| 70-79: | C |
| 60-69: | D |
| < 60: | F |

**Continuity of Instruction**

In the event that face-to-face classes are suspended due to extenuating circumstances, such as weather, the instructor will continue instruction in a manner that best supports the course content and student engagement. In this event, all instructors will notify students of the change via their university email address (the official vehicle for communication with students). At that time, they will provide details about how instruction and communication will continue, how academic integrity will be ensured, and what students may expect during the time that face-to-face classes are suspended. If a student becomes unable to continue class participation due to extenuating circumstances, (e.g., health and safety, loss of power, etc.)  the student should contact their instructor and advisor for guidance. For additional guidance, please refer to [Academic Operating Policy 12.09](https://www.policies.msstate.edu/sites/www.policies.msstate.edu/files/1209.pdf).

**Student Honor Code**

Mississippi State has an approved Honor Code that applies to all students. The code is as follows: “As a Mississippi State University student, I will conduct myself with honor and integrity at all times. I will not lie, cheat, or steal, nor will I accept the actions of those who do.” Upon accepting admission to Mississippi State University, a student immediately assumes a commitment to uphold the Honor Code, to accept responsibility for learning, and to follow the philosophy and rules of the Honor Code.  Student will be required to state their commitment on examinations, research papers, and other academic work. Ignorance of the rules does not exclude any member of the MSU community from the requirements or the processes of the Honor Code.  For additional information, please visit the [Honor Code Policy](http://honorcode.msstate.edu/policy).

**Title IX**

MSU is committed to complying with Title IX, a federal law that prohibits discrimination, including violence and harassment, based on sex. This means that MSU’s educational programs and activities must be free from sex discrimination, sexual harassment, and other forms of sexual misconduct. If you or someone you know has experienced sex discrimination, sexual violence and/or harassment by any member of the University community, you are encouraged to report the conduct to MSU’s Director of Title IX/EEO Programs at 325-8124 or by e-mail to [titleix@msstate.edu](mailto:titleix@msstate.edu). Additional resources are available at [Dean of Students Sexual Misconduct and Sexual Assault](http://students.msstate.edu/sexualmisconduct/).

**Mandatory Reporter Status**

As the instructor for this course, I have a mandatory duty to report to the university any information I receive about possible sexual misconduct. This includes information shared in class discussions or assignments, as well as information shared in conversations outside class. The purpose of reporting is to allow MSU to take steps to ensure a safe learning environment for all. The university also has confidential resources available, who can provide assistance to those who have experienced sexual misconduct without triggering a mandatory reporting duty. Additional resources are available at <https://www.oci.msstate.edu/focus-areas/title-ix-sexual-misconduct/> and at <https://www.students.msstate.edu/sexual-misconduct-sexual-assault/>.

**University Safety Statement**

Mississippi State University values the safety of all campus community members. Students are encouraged to register for Maroon Alert texts and to download the Everbridge App. Visit the Personal Information section in Banner on your MyState portal to register. To report suspicious activity or to request a courtesy escort via Safe Walk, call University Police at 662-325-2121, or in case emergency, call 911. For more information regarding safety and to view available training including helpful videos, visit ready.msstate.edu

**Recording of Classroom Sessions**

Classroom lectures are the copyrighted personal property of the instructor. If you need special classroom accommodations based on a disability, visit the Office of Student Support Services in Montgomery Hall, call 662-325-3335, or visit their website, <http://www.sss.msstate.edu/disabilities/>. Violations will be reported to the Dean of Students and Student Support Services.

**Disability Resource Center**

Mississippi State University is committed to providing equitable access to learning opportunities for all students. The Disability Resource Center (01 Montgomery Hall) collaborates with students who have disabilities to arrange reasonable accommodations. If you have, or think you may have, a disability, please contact [drc@saffairs.msstate.edu](mailto:drc@saffairs.msstate.edu) or 662-325-3335 to arrange a confidential discussion regarding equitable access and reasonable accommodations. Disabilities may include, but are not limited to, conditions related to mental health, chronic health, attention, learning, autism, brain injury, vision, hearing, mobility, speech, or intellectual disabilities. In the case of short-term disabilities (e.g., broken arm), students and instructors can often work to minimize barriers. If additional assistance is needed, please contact the Disability Resource Center.

**Contact Hour Calendar**

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| --- | --- | --- | --- |
| **Week** | **Topic** | **F2F** | **Contact Hours** |
| **1** | Introduction to empirical research | X | 3 |
| **2** | Design, sampling, and questionnaires | X | 3 |
| **3** | Foundations of analysis and reporting | X | 3 |
| **4** | Measurement: reliability, validity, and factor analysis | X | 3 |
| **5** | Correlation & ANOVA | X | 3 |
| **6** | Multiple regression: the basics and relative weight analyses | X | 3 |
| **7** | Moderation, mediation, and moderated-mediation | X | 3 |
| **8** | SEM I: measurement models | X | 3 |
| **9** | ***SPRING BREAK*** | | |
| **10** | SEM II: structural models | X | 3 |
| **11** | Non-independence and interrater agreement | X | 3 |
| **12** | Panel data | X | 3 |
| **13** | Multilevel modeling | X | 3 |
| **14** | Qualitative Research | X | 3 |
| **15** | Meta-analysis | X | 3 |
| **16** | Final exam | X | 3 |
| **Total Contact Hours** | | | 45 |