Instructor: Michael McFarland, Ph.D.
E-mail: mmcfarland@fsu.edu
Class Hours: Remote (weekly)
Office Hours: Tuesday 10-11:00 via Zoom (please email ahead of time)

COURSE DESCRIPTION: The purpose of this course is to provide students with the basic data management and analytical skills necessary for carrying out quantitative analysis and presenting the results to both lay and professional audiences in public health. The basic components of research design required for secondary data analysis will also be covered.

COURSE OBJECTIVES:

At the end of this course, the student will be able to:

1. Determine appropriate data statistical methods and research design for specific public health needs and projects.
2. Apply appropriate statistical techniques to summarize and interpret data relevant to public health research and practice.
3. Evaluate the quality of public health research.
4. Locate, access, and comprehend relevant public health research.

REQUIRED TEXTS


Additional readings can be accessed online via FSU’s library or will be made available on Canvas.

HOMEWORK ASSIGNMENTS: Homework assignments will be required throughout the semester. Homework assignments will typically be due on presented at the end of lecture every Tuesday and will be due the following Tuesday. These assignments are graded as: Satisfactory, Unsatisfactory, and No credit. These assignments are due one week from the day they are assigned unless otherwise specified.

RESEARCH PAPERS: Students are required to write a quantitative research paper. Final research papers should be no more than 25 pages in length (including references, and tables) and word-processed, with double-spacing, 12-point fonts, and 1-inch margins. Please follow ASA, APA or AMA style guidelines. All articles cited in the paper should appear in the reference section. I will provide the research questions, data, and analytical strategy for the paper. Students will be responsible for performing the analysis and writing and scientific paper to report these results.

RESEARCH PAPER PRESENTATION: Students are required to create a brief (10-15 minute) power-point presentation to share the results of their research projects.

COMPUTING SOFTWARE: We will be using SPSS throughout this course. It is available for free to FSU students until June 30, 2021. Please visit the following website to obtain your free copy of SPSS: https://its.fsu.edu/software-store. You’ll want to click on “Personal Orders” and purchase (at no cost) “SPSS statistics.” Alternatively, you can utilize FSU’s virtual lab https://its.fsu.edu/service-catalog/end-point-computing/myfsuvlab to utilize SPSS. I will provide instructions on how to access the later.
UNIVERSITY ATTENDANCE POLICY: Excused absences include documented illness, deaths in the family and other documented crises, call to active military duty or jury duty, religious holy days, and official University activities. These absences will be accommodated in a way that does not arbitrarily penalize students who have a valid excuse. Consideration will also be given to students whose dependent children experience serious illness.

COURSE GRADING:

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participation</td>
<td>20%</td>
</tr>
<tr>
<td>Homework Assignments</td>
<td>30%</td>
</tr>
<tr>
<td>Final Paper</td>
<td>40%</td>
</tr>
<tr>
<td>Presentation of Research Project</td>
<td>10%</td>
</tr>
</tbody>
</table>

GRADING SCALE:

Grading will be according to a standard scale and plus/minus grading will be used for final grades. FSU does not allow a final grade of “A+.” The specific ranges are below.

- A=93-100
- A- =90-92
- B+ =87-89
- B=83-86
- B- =80-82
- C+= 77-79
- C=73-76
- C- =70-72
- D+ =67-69
- D=63-66
- D- =60-62
- F=≤59

Americans With Disabilities Act:
Students with disabilities needing academic accommodation should:
1. register with and provide documentation to the Student Disability Resource Center; and
2. provide a letter to the instructor indicating the need for accommodation and what type. This should be done during the first week of class.

This syllabus and other class materials are available in alternative format upon request.

For more information about services available to FSU students with disabilities, contact the:

Student Disability Resource Center
874 Traditions Way
108 Student Services Building
Florida State University
Tallahassee, FL 32306-4167
(850) 644-9566 (voice)
(850) 644-8504 (TDD)
sdr@adid.fsu.edu
http://www.disabilitycenter.fsu.edu/

Academic Honor Policy:
The Florida State University Academic Honor Policy outlines the University’s expectations for the integrity of students’ academic work, the procedures for resolving alleged violations of those expectations, and the rights and responsibilities of students and faculty members throughout the process. Students are responsible for reading the Academic Honor Policy and for living up to their pledge to “. . . be honest and truthful and . . . [to] strive for personal and institutional integrity at Florida State University.” (Florida State University Academic Honor Policy, found at http://fda.fsu.edu/Academics/Academic-Honor-Policy.)
**Syllabus Change Policy**
Except for changes that substantially affect implementation of the evaluation (grading) statement, this syllabus is a guide for the course and is subject to change with advance notice.

### COURSE SCHEDULE

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Readings</th>
</tr>
</thead>
<tbody>
<tr>
<td>8/25</td>
<td>Introduction to the Course</td>
<td></td>
</tr>
<tr>
<td>9/1</td>
<td>Elements of Research Design and Survey Methods</td>
<td>Dillman 2006; Babbie Chapters 7 and 9</td>
</tr>
<tr>
<td>9/8</td>
<td>False Positives and Measurement Issues</td>
<td>Babbie Chapter 5 Morgan 2018</td>
</tr>
<tr>
<td>9/15</td>
<td>Data Processing</td>
<td>SPSS introduction</td>
</tr>
<tr>
<td>9/22</td>
<td>Univariate Analysis</td>
<td>Gravetter Chapters 1-4</td>
</tr>
<tr>
<td>9/29</td>
<td>Univariate Analysis</td>
<td>Gavetter Chapters 8-9</td>
</tr>
<tr>
<td>10/6</td>
<td>Bivariate Analysis</td>
<td>Gavetter pgs. 450-480</td>
</tr>
<tr>
<td>10/13</td>
<td>Evaluating Research</td>
<td>White 2005</td>
</tr>
<tr>
<td>10/20</td>
<td>Multivariate Analysis</td>
<td>Gravetter pgs. 481-496 Babbie pgs. 467-475</td>
</tr>
<tr>
<td>10/27</td>
<td>Regression Diagnostics</td>
<td>Osborne and Waters 2002</td>
</tr>
<tr>
<td>11/3</td>
<td>Multivariate Analysis</td>
<td>DeMaris 1995</td>
</tr>
<tr>
<td>11/10</td>
<td>Mediation and Moderation in Regression</td>
<td>Mirowsky 2013</td>
</tr>
<tr>
<td>11/17</td>
<td>Individual Meetings (by Zoom)</td>
<td></td>
</tr>
<tr>
<td>11/24</td>
<td>No Class (Thanksgiving)</td>
<td></td>
</tr>
<tr>
<td>11/30</td>
<td>Presentations (by Zoom)</td>
<td></td>
</tr>
<tr>
<td>12/12</td>
<td>Final Paper Due by 5pm</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** Schedule is subject to change.

### OTHER READINGS


