COURSE SYLLABUS

DIVISION: Theoretical and Behavioral Foundations
PROGRAM AREA: Educational Psychology
COURSE: EDP 7104--Research Methods in Applied Behavior Analysis
COURSE CREDIT: 3 Semester Hours
TERM/YEAR: Fall 2017
COURSE LOCATION: WSU--Oakland Center - 33737 W 12 Mile Rd, Farmington Hills
DAY/TIME: Thursdays 9-11:30
INSTRUCTOR: Michelle Fuhr, MA, LLP, BCBA
OFFICE:
OFFICE HOURS: by appointment
OFFICE PHONE: 586-709-1800
EMAIL: cm7867@wayne.edu

COURSE DESCRIPTION:

Course includes an overview of research method techniques, theoretical foundations of empirical research, principles of the scientific method, experimental designs, analyses of research designs, research protocol, and formation of research hypothesis. The majority of the course will be devoted to methods related to single-case research (i.e., data collection, logic, designs).

This course is open to graduate and post-graduate students interested in obtaining knowledge of Behavior Analysis and certification as a Board Certified Behavior Analyst (BCBA). Students are expected to read professional literature, participate in discussions, complete literature research, and practice the application of behavioral principles. Completion of assignments and class participation are essential to meeting the course objectives.

COURSE OBJECTIVES:

After completing this course students will:

1. Understand the scientific method and determine what is science and pseudoscience.
2. Be able to analyze current research in the literature and identify flaws in the research method.
3. Be able to develop a research protocol and apply for permission to conduct research within a research-based institute.
4. Be able to develop a research hypothesis and a single subject design for implementation.
PREREQUISITES: Foundations of Applied Behavior Analysis and Behavioral Assessment

3 SEMESTER HOURS (45 hours towards BCBA content)
Students will receive the following course content towards BCBA requirements:

- 25 hours of Measurement
- 20 hours of Experimental Design

Required Texts:


Readings:


**Course Outline:** *Please see the reading list below. All readings are due on the date listed. Readings are tentative and additional readings will be provided by the instructor as necessary.*

<table>
<thead>
<tr>
<th>Session</th>
<th>Reading</th>
</tr>
</thead>
</table>
| 1       | Scientific Method History and Science Vs. Pseudoscience  
Chapter 1 Bailey & Burch |
| 2       | Dependant and Independent Variables  
Step 2 & 3 Bailey & Burch  
MacDuff (1993) article  
Macdonald et al. (2009) article  
Howard et al (2005) article  
Assignment  
• Quiz 1 due |
| 3       | Experimental Design-I  
Step 7 Bailey & Burch  
Chapter 7 & 9 Cooper, Heron, Heward  
Pierce & Schreibman (1994) article  
Horner, et. al. (2005) article  
Assignment  
• Quiz 2 due  
• Topic for Presentation due |
| 4       | Experimental Design-II  
Chapter 8 & 9 Cooper, Heron, Heward |
<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Topic</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>9/28</td>
<td>Data Recording and Cumulative recorder</td>
<td>Assignment: Quiz 3 due, Independent and Dependent Variables and 5 listed articles due.</td>
</tr>
<tr>
<td>6</td>
<td>10/5</td>
<td>Empirical vs. Correlational</td>
<td>Assignment: Quiz 4 due, 5 articles summarized for Presentation due.</td>
</tr>
<tr>
<td>7</td>
<td>10/12</td>
<td>Graphing I</td>
<td>Assignment: Quiz 5 due, Experimental Design and methods section for presentation due.</td>
</tr>
<tr>
<td>8</td>
<td>10/19</td>
<td>MIDTERM (weeks 1-7)</td>
<td>Assignment: multiple choice questions due, Essays completed in class.</td>
</tr>
<tr>
<td>9</td>
<td>10/26</td>
<td>HSIRB</td>
<td>Assignment: Graph of baseline and treatment conditions due.</td>
</tr>
<tr>
<td>10</td>
<td>11/2</td>
<td>Integrity and IOA</td>
<td>Assignment: Quiz 6 due, Data collection system explanation and data sheets due.</td>
</tr>
<tr>
<td>Assignment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------------------------------------------------------------------------------------------------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Quiz 9 due</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Results (summary and conclusions) due</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Social validity</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 4 Bailey &amp; Burch</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Callahan et al (2008) article</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cooper, Heron, &amp; Heward p. 55-65, 237-243, 250-251</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Van Houten (1979) article</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assignment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Quiz 10 due</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Component Analysis and Meta- Analysis</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Read one of the following:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eldevik, Hastings, et. al. (2009)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Soloman et al (2012) article</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bellini (2007) article</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Read both of the following:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ward-Horner &amp; Sturmey (2010) article</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Public dissemination</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Part III Bailey &amp; Burch</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task force on promotion and dissemination of psychological procedures (pdf)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assignment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Social validity and importance explanation due</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11/23</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Thanksgiving- no class</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Presentations</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11/30</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Final Exam</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• multiple choice questions due</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Essays completed in class</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12/7</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Expectations:**
1. Students are expected to attend class sessions.
2. Students are expected to read the assigned materials prior to the class, integrate the information and participate in class discussions of the materials.
3. Students are expected to engage in respectful discourse.

**Evaluations:**
1. Readings are to be completed prior to the class session for which they are assigned.
2. A class presentation will be given on a fictitious ABA-based research project that you will develop. A rubric will be provided to outline the expectations of the research project.
3. seven assignments will be given to assist with your presentation completion. You will need to complete the assignments by the assigned deadline. An assignment guide will be provided to you. Assignments should be completed cumulatively on the assignment guide as appropriate. The assignment guide will have further instructions on this.
4. There will be two examinations: a midterm and a final. The answer format will be multiple choice and completed in class. The midterm will cover material through week 7. The final will cover material from week 1 to the end of the course.

5. Weekly quizzes will be given on the previous week’s reading and lecture material. Quizzes will be on blackboard. Students will be given 15 minutes to complete the quiz and are expected to refrain from using notes or lecture materials. Quizzes are to be completed through blackboard by the start of the next class.

6. Assignments should be completed by the assigned deadline. Late assignments will result in a 5-point deduction. Missing assignments will result in a 0 grade.

7. Assignments should be submitted on Blackboard as well as a hard copy printed and turn in at the class in which it is due. Both Blackboard and a hard copy are required.

Grade:

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>Points</th>
<th>Percent of Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekly quizzes</td>
<td>10pts each (80points total)</td>
<td>21%</td>
</tr>
<tr>
<td>Presentation assignments</td>
<td>20pts each (140pts total)</td>
<td>37%</td>
</tr>
<tr>
<td>Presentation</td>
<td>60 points</td>
<td>16%</td>
</tr>
<tr>
<td>Midterm exam</td>
<td>50 points</td>
<td>13%</td>
</tr>
<tr>
<td>Final exam</td>
<td>50 points</td>
<td>13%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>380 points</td>
<td>100%</td>
</tr>
</tbody>
</table>

FINAL GRADES:
The following grading scale will be applied based on the total number of points accumulated by the semester end (380 points possible):

A 95% +  B- 80-82%
A- 90-94%  C+ 77-79%
B+ 87-89%  C  70-76%
B 83-86%  Fail 69% -

ATTENDANCE AND PARTICIPATION:
4. Students are expected to attend class sessions.
5. Students are expected to read the assigned materials prior to the class, integrate the information and participate in class discussions of the materials.
6. Students are expected to engage in respectful discourse.

STUDENT USE OF LAPTOP COMPUTERS IN CLASS
Students may, of course, use laptop computers in class. However, it is not acceptable to be doing anything on them except taking notes. Other activity on laptops is distracting to others, including the instructor, and is generally disrespectful to the educational process. Those who violate this will not be permitted to use a laptop in class.

STUDENT USE OF PHONES IN CLASS
Absolutely no texting or other phone use is allowed during class. Except under unusual circumstances, phones should be put away and not be on top of your desks. In the case of a true emergency, students are expected to step out of class in order to respond to it.

WITHDRAWAL POLICY:
Students who withdraw from a course after the end of the 4th week of class will receive a grade of WP, WF, or WN.

- WP will be awarded if the student is passing the course (based on work due to date) at the time the withdrawal is requested
- WF will be awarded if the student is failing the course (based on work due to date) at the time the withdrawal is requested
- WN will be awarded if no materials have been submitted, and so there is no basis for a grade

Students must submit their withdrawal request on-line through Pipeline. The faculty member must approve the withdrawal request before it becomes final, and students should continue to attend class until they receive notification via email that the withdrawal has been approved. Withdrawals can be requested at any point from the fifth week of class through the study day.

ACADEMIC DISHONESTY, INCLUDING PLAGIARISM:
No form of academic dishonesty will be tolerated. It is completely assumed that not only do you already know to avoid plagiarism, cheating, etc., but also that you have read your Graduate Handbook and other formal WSU documents describing your responsibility as a student. Particularly on assignments such as those in this course, you must also paraphrase others' writing and never use verbatim statements without direct quotes and page numbers.

Plagiarism
Plagiarism includes copying material (any more than 5 consecutive words) from outside texts or presenting outside information as if it were your own by not crediting authors through citations. It can be deliberate or unintended. If you're in doubt about the use of a source, cite it. Students caught plagiarizing information from other sources will receive a failing grade in the course. University policy states that students can be subject to multiple sanctions, from reprimand to expulsion as a consequence of academic dishonesty. To enforce this policy, all outside references must be submitted with assignments.

It is the policy of this course that in cases of academic dishonesty, a grade of F is assigned for the course and charges may be filed with the WSU Judicial Officer. WSU also has policies about this. The following is taken directly from the WSU Graduate Bulletin:

Deception, Fraud and Misuse of Documents
Intentionally furnishing false information to the University is explicitly prohibited, as is forgery, alteration, unauthorized possession, or misuse of University documents, records and identification cards. The University reserves the right to rescind degrees if the award of the degree was based in whole or in part on deception, fraud, other unacceptable academic conduct, or misuse of University documents.

REFERENCING:
When referencing others' work, you must paraphrase unless you use quotation marks to indicate that it is a direct quote, and indicate the page number from which you obtained the statement(s). Be sure to never use others' work and claim it as your own. Also, minimize the number of direct quotes. You must describe others' work in your own words and then cite the authors.
accordingly. Cite authors in the order in which their names were published. You never reorganize the authorship order. That order is determined by level of contribution to the article. See additional handout posted on Blackboard on how to create references using APA style.

**WRITING SKILLS:**
Quality writing skills are necessary for any career, especially one in the educational profession. For those students who have under-developed writing skills, WSU has a writing center, which can be found at [http://www.clas.wayne.edu/writing/](http://www.clas.wayne.edu/writing/). The mission and services offered at the Writing Center can be found on that website. There is also an online writing center (HOOT), which provides students the opportunity to converse with Writing Center staff online. See [http://www.clas.wayne.edu/unit-inner.asp?WebPageID=1330](http://www.clas.wayne.edu/unit-inner.asp?WebPageID=1330) for information about HOOT. The site also has a list of additional resources.

**ATTENTION STUDENTS WITH DISABILITIES**
If you have a documented disability that requires accommodations, you will need to register with Student Disability Services (SDS) for coordination of your academic accommodations. The Student Disability Services (SDS) office is located at 1600 David Adamany Undergraduate Library in the Student Academic Success Services department. SDS telephone number is 313-577-1851 or 313-577-3365 (TDD only). Once you have your accommodations in place, I will be glad to meet with you privately during my office hours to discuss your special needs. Student Disability Services’ mission is to assist the university in creating an accessible community where students with disabilities have an equal opportunity to fully participate in their educational experience at Wayne State University.

Please be aware that a delay in getting SDS accommodation letters for the current semester may hinder the availability or facilitation of those accommodations in a timely manner. Therefore, it is in your best interest to get your accommodation letters as early in the semester as possible.

**SDS NEWS:**
Effective Fall semester 2010 Student Disability Services will be implementing a revised alternative testing form when a student schedules classroom exams/quizzes administration at SDS. As before the student and instructor each have a portion to complete. Exams are to be mailed to a new password protected email address: sdsexams2010@wayne.edu.

**RELIGIOUS OBSERVANCE POLICY:**
Because of the extraordinary variety of religious affiliations represented in the University student body and staff, the Wayne State University calendar makes no provision for religious holidays. It is University policy, however, to respect the faith and religious obligations of the individual. Students who find that their classes or examinations involve conflicts with their religious observances are expected to notify their instructors well in advance so that alternative arrangements as suitable as possible may be worked out.