Course Name: Research and Design in Applied Behavior Analysis  
Course ID: Psy 526  
Semester: Spring 2017  
Mode: Blended  

Instructor: Gary Pace, Ph.D., BCBA-D  
Email: gpace@umassd.edu  
Phone: 508 999-8349  
Office Hours: by appointment  

Course Description  
This course focuses on research methods used in behavior analysis. The course reviews the measurement and analysis of data, and single subject research designs.  

The course will consist of a combination of online and traditional face-to-face classes. The format of the online classes will include a narrated PowerPoint presentation, class readings, and an online discussion forum. The format of the face-to-face classes will be a combination of instructor lecture, student presentation of selected research articles, class readings, and class discussion. This course provides credit hours toward educational qualifications required to sit for the behavior analysis certification examination. 

Student Competencies. (As linked to the BACB Fourth Edition Task List) Students who successfully complete the course will develop knowledge and skills related to the following competencies:  

<table>
<thead>
<tr>
<th>Section I: Basis Behavior-Analytic Skills</th>
<th>Task #</th>
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</thead>
<tbody>
<tr>
<td>Measurement</td>
<td>A-01 to A-14</td>
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<tr>
<td>Experimental Design</td>
<td>B-01 to B-11</td>
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<tr>
<td>Section II: Client-Centered Responsibilities</td>
<td>Task #</td>
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<tr>
<td>Measurement</td>
<td>H-01 to H-05</td>
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Prerequisite: Psy 509. 

Course Credits: This is a three-credit course  

Required Readings: 


selecting measurement procedures for the assessment and treatment of problem 
behavior. Behavior Analysis in Practice, 9, 77-83.

Kleinmann, A. E., Luiselli, J.K., DiGennaro, F.D., Pace, G.M., Langone, S. R., & Cochran, 
C. (2009). Systems-level Assessment of Interobserver Agreement (IOA) for 
implementation of protective holding (therapeutic restraint) in a behavioral 

feedback on treatment integrity of behavior support plans. Journal of Applied Behavior 
Analysis, 38, 205-219.

Pace, G.M., & Toyer, E.A. (2000). The effects of a vitamin supplement on the pica of 
a child with severe mental retardation. Journal of Applied Behavior Analysis, 33, 619- 
622.

Clinical evaluation of the self-injurious behavior inhibiting system (SIBIS). JABA, 
23, 53-78.

Noel, C.R, & Getch, Y.Q. (2016). Noncontingent reinforcement in after-school 
settings to decrease classroom disruptive behavior for students with autism 
spectrum disorder. Behavior Analysis in Practice, 9, 261-265.

problem behavior of elderly adults in long-term care. Journal of Applied Behavior 
Analysis, 40, 679-683.

developmental delays. Behavior Analysis in Practice, 5, 60-64.

Horner, R.D., & Keilitz, I. (1975). Training mentally retarded adolescents to brush 
their teeth. JABA, 8, 301-309.

problems and rewards to increase addition-fact fluency in a first grade general 


**Course Requirements:**

**Readings:** For most classes there will be assigned chapters and/or research articles to read.

**Student Presentations:** Students will present assigned articles. Presentation of articles should focus on (a) the rationale for the study, (b) brief description of the method, (c) description of results, (d) authors’ conclusions, (e) critique of the study, and (f) applied/clinical implications of the study. The emphasis of the presentations should be on conclusions, critique, and clinical implications rather than on merely summarizing the study. If possible, relate the study to specific cases with which you are familiar. Each presentation and discussion should be a total of approximately 20 minutes.

**Quizzes/Assignments:** At the beginning of some classes, there will be a short quiz based on the previous classes readings. There could be a quiz before any class, so it is important to read all articles carefully. There will also be assignments throughout the year, which will be due the following class.

**Classroom Participation:**
Substantive participation should:
- Add value to the discussion and avoid simply repeating, agreeing with, or answering yes or no to peer’s comments
• Challenge comments in class, including those of the facilitator
• Ask insightful questions
• Answer other people’s questions
• Exemplify the point with real-life events, when possible
• Make comments that are relevant to the course content and objectives

Ideas for substantive participation include:
• Share an experience that is related to the discussion. Comment on other participants’ experiences that are related to the course.
• Ask others questions about their ideas and experiences that are related to the course.
• Challenge a point that another participant made in a respectful manner. Offer a different perspective on an idea that is being discussed.
• Give insights gained from readings that were assigned for the week. If you need more information, ask the participants a question about the week’s reading.
• Discuss a work issue that is related to the course or discussion and ask for feedback.
• Relate how you have applied what you have read, learned or discussed regarding the course to your personal and professional life.
• Share another resource such as Web links, books, etc. that you have used to answer other participants’ questions or as you explore the topics of the course (as it is a violation of copyright law to copy the actual page).

Journal Article Summaries: Each student is required to complete journal article summaries – with an emphasis on critical analysis – from articles selected by the instructor throughout the semester. Summaries must be typed and adhere to a prescribed outline & due dates. Detailed instructions will be provided.

Applied Research Project Presentation: Each student will be responsible for designing and presenting a single subject research study. Each student will select hypothetical participant(s), identify a dependent variable(s), utilize an appropriate measurement system, and identify/present an empirically based intervention utilizing an appropriate single subject experimental design. You will also include hypothetical results, and discussion. Detailed instructions will be provided.

Course Objectives

Course Objectives: By the end of the semester students will:
• Demonstrate how to select target behaviors, design a measurement system, and display and interrupt data
• Demonstrate how to design clinical investigations to demonstrate functional relationships between independent and dependent variables.
• Demonstrate how to review and interrupt articles from the behavior-analytic literature.

**Communication Plan**

Here are my expectations for electronic communication:

- Please use email *ONLY* when the subject is of a personal and confidential matter. If the question you ask is of a nature that even one other person in the course could benefit from the answer, post the question in the appropriate discussion board forum.
- I check my email daily Monday through Friday during normal business hours only. You can expect a reply from me via email within 24 hours during the work week.
- I will also check the discussion forums daily during the work week. I will always reply to any discussion comment directed specifically at me.

**Time Considerations**

Students should be prepared to spend a minimum of 3 hours a week on reading and on course assignments for the online classes associated with this class. While you may feel that I’m providing a lot of information to you on a weekly basis remember that in a traditional “live” course you would be coming to class for 2.5 hours and then spending an additional 3-6 hours (at least) outside of class on assignments and reading. In our online course environment my expectation is that you will be spending those 2.5 “class hours” on your own, working on the concepts that you would usually get in a live lecture. Please be sure to budget your time accordingly!

**The Online Weekly Schedule**

Electronic weeks begin on Monday and ends on Sunday.

Day 1 - Monday  Day 2 - Tuesday  Day 3 - Wednesday  Day 4 - Thursday  Day 5 - Friday  Day 6 - Saturday  Day 7 – Sunday

**Methods of Evaluation**

**Evaluation and Grading Breakdown:**

- Class participation/attendance  20%
- Quizzes/journal article summaries/assignments  25%
- Student article presentations  25%
- Applied Research Project presentation  30%

Final course scores will convert to the following letter grades:
Late Assignments

All assignments are expected to be completed by the assigned due date. If you will not be able to get an assignment completed by the due date, contact me by email.

All students are expected to participate in face-to-face classes. Missing a class will result in zero participation points for that class.

Incomplete Policy

According to the university catalogue, an incomplete may be given only in exceptional circumstances at the instructor’s discretion. The student must be passing at the time of the request or be sufficiently close to passing. If the work is not completed within one year of the recording of the incomplete grade, the grade will become an F(I). The incomplete policy for this course is that at least 70% of the course must be already completed and an exceptional circumstance (i.e. medical issue) must exist. If you feel you require an incomplete for an exceptional reason, you need to email me and state your reasons for the incomplete in writing. We will then decide on a course of action.

http://www.umassd.edu/nfi/teachingandadvising/coursesyllabus/sampleincompletestatement/

Student Academic Integrity Policy

All UMass Dartmouth students are expected to maintain high standards of academic integrity and scholarly practice. The University does not tolerate academic dishonesty of any variety, whether as a result of a failure to understand required academic and scholarly procedure or as an act of intentional dishonesty.

A student found responsible of academic dishonesty is subject to severe disciplinary action, which may include dismissal from the University. The procedure for responding to incidents of academic dishonesty may be found in Section III of this
A high standard of academic integrity promotes the pursuit of truth and learning and respect for the intellectual accomplishments of others. These are values that are fundamental to the mission of this University. Such values are undermined by academic dishonesty.

Academic freedom is a fundamental right in any institution of higher learning. Honesty and integrity are necessary preconditions of this freedom. Academic integrity requires that all academic work be wholly the product of an identified individual or individuals. Joint efforts are legitimate only when the assistance of others is explicitly acknowledged and deemed appropriate by the instructor of the course. Ethical conduct is the obligation of every member of the University community, and breaches of academic integrity constitute serious offenses.

Maintenance of the standards of academic integrity and the successful administration of this policy depend on the mutual cooperation of faculty and students.

Faculty cooperation is essential for successful application of the procedures defined by this Academic Integrity Policy. Faculty members promote academic integrity by making clear on their syllabi their expectations concerning homework assignments, collaborative student efforts, research papers, examinations, computer-based infractions, and the like. Efforts should be made to detect and to prevent cheating and plagiarism in all academic assignments. If faculty members have evidence of academic dishonesty, they are expected to report such evidence promptly.

Students must assume responsibility for maintaining honesty in all work submitted for credit and in any other work designated by the instructor of the course. Students are also expected to report incidents of academic dishonesty to the instructor or dean of the instructional unit.

The intent of this policy is to make clear the standards of academic integrity at UMass Dartmouth.

*For additional information on violations, infractions, and consequences visit the UMass Dartmouth Student Academic Integrity Policy at the link below.

http://www.umassd.edu/policies/activepolicylist.academicaffairs.academicintegritypolicyandreportingform/

Center for Access and Success
In accordance with University policy, if you have a documented disability and require accommodations to obtain equal access in this course, please meet with the instructor at the beginning of the semester and provide the appropriate paperwork from the Center for Access and Success. The necessary paperwork is obtained when you bring proper documentation to the Center, which is located in Pine Dale Hall, Room 7136; phone: 508.999.8711.

http://www.umassd.edu/dss/

**Resources**

Links to all student resources can be found at:
http://www.umassd.edu/extension/studentresources/

**Tutoring**
If you are having difficulty with the class please:
- Post a message on the Discussion Board – be sure to use your classmates for troubleshooting and problem solving.
- Make an appointment to come in and meet with me during my office hours.
- Contact the Academic Resource Center (ARC) for support:

  Academic Resource Center, Liberal Arts – Room 7
  Phone: 508.999.8708, Fax: 508.910.6404

**Technical Help**
If you are in need of technical assistance, please visit the link below for a list of technical support resources.
http://www.umassd.edu/extension/technicalresources/

### Schedule

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<tr>
<th>Week/Date Beginning</th>
<th>Unit of Instruction Topic</th>
<th>Responsibilities</th>
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</table>
| Week 1
  Monday January 23 to     | **Format of class: online**
  Sunday January 29        | **Reading:**
                          | Richards et al. (2014) Chapter 1                                                         |                        |
                          | **Topics:**                                                                               | **Activity:**
                          | • Welcome                                                                                 | Narrated PowerPoint    |
                          | • Introduction to the class                                                              |                        |
                          | • Introduction to single subject methodology and design                                  | **Evaluation:**
                          |                                                                                          | Online assignment      |
| Week 2  
Tuesday January 31 | Format of class: Face-to-face, instructor presentation |
|---------------------|--------------------------------------------------------|
| Topics:             | - History  
                      - Internal, external, and social validity  
                      - Graphing and interpreting data  
                      - Concepts of prediction, verification, and replication  
| **Readings:**       | Richards et al. (2014) Chapter 4  
                      Baer, Wolf, & Risley, 1968  
| **Activity:**       | Class discussion |
| **Evaluation:**     | Participation in class discussion and possible quiz |

| Week 3  
Tuesday February 7 | Format of class: Face-to-face, instructor presentation |
|---------------------|--------------------------------------------------------|
| Topics:             | - Developing target behaviors  
                      - Measuring target behaviors  
| **Readings:**       | Richards et al. (2014) Chapter 3  
                      LeBlanc et al. (2016)  
| **Activity:**       | Class discussion |
| **Evaluation:**     | Participation in class discussion and data sheet development assignment |

| Week 4  
Tuesday February 14 | Format of classes: Face-to-face, Instructor presentation |
|-----------------------|----------------------------------------------------------|
| Topics:               | - IOA  
                      - Data collection timeliness  
                      - Treatment integrity  
| **Readings:**         | Kleinmann et al. (2009)  
                      Codding et al. (2005)  
| **Activity:**         | Class discussion |
| **Evaluation:**       | Article summary and critique |

| Week 5  
Tuesday February 21 | No Class- Follow Monday's class schedule |
<table>
<thead>
<tr>
<th>Week 6</th>
<th>Monday February 27, Sunday March 5</th>
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</thead>
<tbody>
<tr>
<td>Format of class: Online</td>
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</table>
| Topic: Withdrawal designs  | **Readings:**  
Richards et al. (2014) Chapter 5  
**Activity:**  
Narrative PowerPoint presentation  
**Evaluation:**  
Possible quiz |

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<tr>
<th>Week 7</th>
<th>Tuesday March 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Format of class: Face-to-face, Student presentations</td>
<td></td>
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</tbody>
</table>
| Topic: Applications of withdrawal designs  | **Readings:**  
Pace & Toyer (2000)  
Dwyer & Dixon (2007)  
Linscheid et al (1990)  
Noel & Getch (2016)  **Activity:**  
Class discussion  
**Evaluation:**  
Participation in class discussion and possible quiz |

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<tr>
<th>Week 8</th>
<th>Tuesday March 14</th>
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<tbody>
<tr>
<td>Spring Break</td>
<td>No Classes, no assignments</td>
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<tr>
<th>Week 9</th>
<th>Monday March 20 to Sunday March 26</th>
</tr>
</thead>
<tbody>
<tr>
<td>Format of class: Online</td>
<td></td>
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</tbody>
</table>
| Topic: Multiple baseline designs  | **Readings:**  
Richards et al. (2014) Chapter 9  
**Activity:**  
Narrative PowerPoint presentation  
**Evaluation:**  
Possible quiz |

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<thead>
<tr>
<th>Week 10</th>
<th>Tuesday March 28</th>
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</thead>
<tbody>
<tr>
<td>Format of class: Face-to-face Student presentations</td>
<td></td>
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</table>
| Topic: Applications of multiple baseline designs  | **Readings:**  
Horner & Keilitz (1975)  
Cocchiola et al. (2012)  
Aspiranti et al. (2011)  
Garcia, et al. (2016) |
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<tr>
<th>Week 11</th>
<th>Format of class: Online</th>
<th>Readings:</th>
<th>Activity:</th>
<th>Evaluation:</th>
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<tbody>
<tr>
<td></td>
<td>Topic:</td>
<td>Richards et al. (2014) Chapters 7 &amp; 11</td>
<td>Student presentation and class discussion</td>
<td>Class discussion and possible quiz</td>
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<tr>
<td></td>
<td>• Alternating treatment (multielement) design</td>
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<tr>
<td></td>
<td>• Changing Criterion design</td>
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<tr>
<td>Week 12</td>
<td>Format of class: Face-to-face, student presentations</td>
<td>Readings:</td>
<td>Activity:</td>
<td>Evaluation:</td>
</tr>
<tr>
<td></td>
<td>Topic:</td>
<td>Lerman et al. (1994)</td>
<td>Student presentation and class discussion</td>
<td>Class discussion and possible quiz</td>
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<tr>
<td></td>
<td>• Applications of alternating treatment designs</td>
<td>Peyton et al. (2005)</td>
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<tr>
<td></td>
<td>• Applications of changing criterion designs</td>
<td>Cengher et al. (2016)</td>
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<td>DeLuca &amp; Holborn (1992)</td>
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<tr>
<td>Week 13</td>
<td>Format of class: Face-to-face</td>
<td>Readings:</td>
<td>Activity:</td>
<td>Evaluation:</td>
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<tr>
<td></td>
<td>Topic:</td>
<td>APA publication manual</td>
<td>Class discussion</td>
<td>Possible quiz</td>
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<tr>
<td></td>
<td>Components of a manuscript</td>
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<td>Overview of APA writing style</td>
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<td></td>
<td>Discussion of student applied research projects</td>
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Pace, et al. (1986)

Activity:
Student presentation and class discussion

Evaluation:
Class discussion and possible quiz
| Week 14  
| Tuesday April 25 | Format of class: Face-to-face  
| | Student presentations  
| | Topic:  
| | Students will present their applied research project  
| | Readings:  
| | None  
| | Activity:  
| | Student presentation and class discussion  
| | Evaluation:  
| | Class discussion  

| Week 15  
| Tuesday May 2 | Format of class: Face-to-face  
| | Student presentations  
| | Topic:  
| | Students will present their applied research project  
| | Readings:  
| | None  
| | Activity:  
| | Student presentation and class discussion  
| | Evaluation:  
| | Class discussion  

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