College of Education and Human Development  
Division of Special Education and disAbility Research  

Spring 2018  
EDSE 846 001: Assessment, Evaluation, and Instrumentation in Special Education Research  
CRN: 20164, 3 – Credits

**Instructor**: Dr. Frederick Brigham  
**Meeting Dates**: 01/22/18 – 05/16/18  
**Phone**: 703 993-1667  
**E-Mail**: fbrigham@gmu.edu  
**Office Hours**: M & W afternoons (make apt.)  
**Office Location**: Finley, 2nd floor across from elevator  

**Meeting Day(s)**: Wednesday  
**Meeting Time(s)**: 7:20 pm - 10:00 pm  
**Meeting Location**: Fairfax,  
**Other Phone**: N/A

*Note: This syllabus may change according to class needs. Teacher Candidates/Students will be advised of any changes immediately through George Mason e-mail and/or through Blackboard.*

**Prerequisite(s)**: Admission to PhD in education program, or permission of instructor.  
**Co-requisite(s)**: None

**Course Description**  
Provides in-depth study, analysis and discussion of the past, present and future directions of assessment, evaluation, and instrumentation research in special education. Emphasizes reliability and validity of the research instruments, evaluating research methodology, analyzing results, synthesizing findings with respect to present assessment and evaluation policies; formulating future research questions relevant to assessment and evaluation of individuals with disabilities. Offered by Graduate School of Education. May not be repeated for credit.

**Registration Restrictions**:  
Enrollment is limited to students with a major in Education.  
Enrollment is limited to Graduate level students.  
Schedule Type: Lecture

**Advising Contact Information**  
Please make sure that you are being advised on a regular basis as to your status and progress through your program. Mason M.Ed. and Certificate teacher candidates/students should contact
the Special Education Advising Office at (703) 993-3670 for assistance. All other teacher candidates/students should refer to their faculty advisor.

Course Delivery Method
Learning activities include the following:
1. Class lecture and discussion
2. Application activities
3. Small group activities and assignments
4. Video and other media supports
5. Research and presentation activities
6. Electronic supplements and activities via Blackboard

Learner Outcomes
1. Describe various methodologies used in special education assessment and evaluation research.
2. Analyze the reliability and validity of research instruments.
3. Determine the implementation mechanisms for various assessment and evaluation procedures in special education.
4. Demonstrate how to analyze and synthesize special education assessment research.
5. Describe issues surrounding special education assessment research.
6. Develop and present an applied project investigating a selected topic in special education assessment and evaluation.

Course Relationship to Program Goals and Professional Organizations
This course is part of the George Mason University, College of Education and Human Development (CEHD), Graduate School of Education, Special Education, CEHD PhD in Education Program. This program complies with university and program standards.

Required Textbooks


Recommended Textbooks

Required Resources
Spreadsheet software (recommend Excel)

SPSS (can also use R but you need to know how to do it. I will provide support for SPSS)

Additional Readings
See class bibliography for additional readings.
Course Performance Evaluation
Students are expected to submit all assignments on time in the manner outlined by the instructor (e.g., Blackboard, Tk20, hard copy).

Tk20 Performance-Based Assessment Submission Requirement
It is critical for the special education program to collect data on how our students are meeting accreditation standards. Every teacher candidate/student registered for an EDSE course with a required Performance-based Assessment (PBA) is required to upload the PBA to Tk20 (regardless of whether a course is an elective, a one-time course or part of an undergraduate minor). A PBA is a specific assignment, presentation, or project that best demonstrates one or more CEC, InTASC or other standard connected to the course. A PBA is evaluated in two ways. The first is for a grade, based on the instructor's grading rubric. The second is for program accreditation purposes. Your instructor will provide directions as to how to upload the PBA to Tk20.

For EDSE 846, the required PBA is (NO ASSESSMENT REQUIRED FOR THIS COURSE). Failure to submit the assignment to Tk20 will result in reporting the course grade as Incomplete (IN). Teacher candidates/students have until five days prior to the University-stated grade change deadline to upload the required PBA in order to change the course grade. When the PBA is uploaded, the teacher candidate/student is required to notify the instructor so that the “IN” can be changed to a grade. If the required PBA is not uploaded five days prior to the University-stated grade change deadline and, therefore, the grade not changed, it will become an F. Please check to verify your ability to upload items to Tk20 before the PBA due date.

Assignments and/or Examinations

Performance-based Assessment (Tk20 submission required)
There is no TK20 submission required for this course.

College Wide Common Assessment (TK20 submission required)
There is no College-Wide Assessment required for this course.

Performance-based Common Assignments (No Tk20 submission required.)
There is no Performance-based Common Assessment required for this course.

Other Assignments

Option 1: Individual Research Review Paper
An integrative review paper must be completed. You may select to complete a traditional or integrative research review paper of a selected area in special education assessment and evaluation. Have your topic approved prior to beginning. You should also prepare materials based on the paper to present to the class.
1. Select a current topic impacting assessment and evaluation in special education.
2. Complete a literature search of Psych Info and other relevant databases to identify relevant
original research articles (check for other relevant data bases).
3. Obtain and read original research articles.
4. Develop a coding system to organize your articles.
5. Code, organize, analyze, and synthesize the information from the articles.
6. Write the paper using the *American Psychological Association Publication Manual* (6th edition) guidelines:
   - Title Page
   - Abstract
   - Introduction and Purpose
   - Method (literature search procedures)
   - Results (this is the section that will vary according to your specific articles)
   - Overall characteristics of the studies (number of articles, participant characteristics, disability areas, general descriptions of assessment/evaluation procedures, overall findings; and quality of studies)
   - Discussion – Summary and Conclusions
   - References

There will be numerous opportunities to discuss this project throughout the semester.

**Option 2: Research Application Project**

The research application project is designed to provide experience in designing, implementing, and evaluating an assessment related research application project in special education. Be sure to have your research question and design approved before beginning since the instructor can assist you with the design components and GMU and district human subjects’ approval.

This applied research project may also focus on the design, development, piloting, evaluation and refinement of an assessment or assessment tool used in research. It is recommended that following format be followed:

**Questions of the Research Application Project:**
Sample questions:
*How does on-going assessment impact teachers' instructional decision making in content areas for middle school students with SLD?*

*What is the reliability and validity of the Assistive Technology Attitude Scale developed for measuring teachers' attitudes toward assistive technology?*

**Background Literature:**
Provide a brief description of the background literature that indicates a need for your question.

**Design/Method of the Project:**
This section will be based upon your question. There are a variety of methodologies you could select to investigate your selected question.

**Participants:** Use the following marker variables as guidelines to describe the participants in your applied project. (maybe students, in-service teachers, pre-service teachers, etc.). Report the data
on:

- Participants' overall characteristics (e.g., age, gender, ethnicity, socio-economic status, etc.)
- Participants' specific characteristics (e.g., years of teaching experience, disability category, achievement scores, etc.)
- Setting (e.g., size, location, etc.)

Materials: Carefully describe all of the materials that were used in your project. Attach copies of the precise materials used in all conditions, including any teacher materials and student materials. This also includes describing fidelity of implementation materials.

Testing materials: Carefully describe all of the testing materials that were developed and/or used. Include copies of any surveys, interview protocols, observation protocols, and/or pre/posttests. Remember these measures will be used to describe whether or not your methods were “EFFECTIVE.” You may want to develop and validate a criterion-referenced test of participant’s knowledge (pretest/posttest), attitude measures (e.g., I incorporate technology in my classroom instruction. 1 2 3 4 5), as well as include a measure of observable data (e.g., audio or videotape participants).

Procedure: Carefully describe in a step by step fashion what you did. Use subheadings if you have multiple conditions (for example; daily assessments of students' performance to guide the instructional decision making).

Testing procedures: Describe how the measures were administered. For example, identify whether there was group versus individual implementation.

Scoring procedures: Describe how the measures were scored. For example, if tests consisted of multiple choice items, scoring is usually straight forward, however, if short answer items were used, then what was the scoring criteria? Did you have multiple raters completing an observational tool of a 1st year special education teacher in the classroom? Describe reliability of scoring and observations.

Data Sources: Provide a listing of all of the sources of data you obtained. We will use this list to help determine the appropriate data analyses procedures.

Results: Describe results all of the dependent variables. You can present individual scores (use the same ID#s used in the demographic data sheets) and then compute a column average (we will learn several statistical tests that you will be able to use for calculating reliability of your instrument and analyzing your data).

Discussion: Provide a discussion of your findings. The first few sentences can provide summary accounts of the findings. For example, method A clearly facilitates an intervention completed with high fidelity, as every teacher’s student in method A received 10 points higher on the unit test. Or the instrument has proven to be a reliable and valid mechanism for measuring teachers' attitudes.

Provide some insights as to why you might have obtained the findings. Provide a summary
paragraph describing what you learned from the application project and how you could implement projects like this in your teaching to determine which methods work best with your students.

Option 3: Individually negotiated project
Got an idea? Come see me outside of class. We can consider what you would like to do.

Course Policies and Expectations

Attendance/Participation
Part of the responsibility that professional educators assume is punctual and active performance of their duties. Such behavior is expected in this class as well as in the performance of the duties of being a professional educator. I take attendance in each meeting to document who is present, on-time, present and late, as well as absent. I do not award points nor do I impose penalties for absence, or tardiness. However, you miss class or come late at your own risk.

Reasons for Absence Some students call or write to me to ask if is alright to miss class. Please do not do that! The answer to “Is it alright to miss class?” is always no. I have not reserved one class meeting for an incredible burst of irrelevance that has nothing to do with anything related to the course! But, while it is not alright to miss class, it is sometimes necessary. All of the people enrolled in this class are professional educators or individuals who aspire to be a professional educator and they are adults. Therefore, if you need to miss class, I ask that you notify me by email so that I won’t worry about what happened to you. It is not necessary to tell me why. I believe that asking me to judge the adequacy of your reason is demeaning to both of us. That said, if it becomes necessary for you miss a large portion of the class meetings, we should discuss the number of meetings, the impact of missing them, and devise a plan for dealing with whatever issue is forcing you into that decision.

Late Work
All student work must be submitted through the Blackboard class website. Due dates are posted at the end of the syllabus and also on the blackboard site. On time submissions are required to be in the class Blackboard Assignment folder by the beginning of the class session on the due date.

Only submissions through the Blackboard Assignment folder will be accepted. Assignments sent as email attachments will be deleted without opening them. Assignments that are not in the Blackboard assignments folder at the appropriate time are late.

Grading Scale
Evaluation will be based upon a point system. The point value for each assignment is as follows:

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Points</th>
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</thead>
<tbody>
<tr>
<td>Classroom Participation</td>
<td>5</td>
</tr>
<tr>
<td>Article Summaries (five per student, 4 pts each)</td>
<td>20</td>
</tr>
<tr>
<td>Midterm Review/Exam</td>
<td>20</td>
</tr>
<tr>
<td>Project Update Presentation</td>
<td>10</td>
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<tr>
<td>Applied Project</td>
<td>40</td>
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<tr>
<td>Project Presentation</td>
<td>5(McCullough &amp; Miller, 2003)</td>
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</tbody>
</table>
TOTAL POINTS 100

GRADING SCALE
95-100% = A  
90-94% = A-
87-89% = B+  
83-86% = B  
80-82% = B-  
70-79% = C  
< 70% = F

*Note: The George Mason University Honor Code will be strictly enforced. Students are responsible for reading and understanding the Code. “To promote a stronger sense of mutual responsibility, respect, trust, and fairness among all members of the George Mason University community and with the desire for greater academic and personal achievement, we, the student members of the university community, have set forth this honor code: Student members of the George Mason University community pledge not to cheat, plagiarize, steal, or lie in matters related to academic work.” Work submitted must be your own or with proper citations (see https://catalog.gmu.edu/policies/honor-code-system/).

Professional Dispositions
Students are expected to exhibit professional behaviors and dispositions at all times. See https://cehd.gmu.edu/students/polices-procedures/. 

Class Schedule
*Note: Faculty reserves the right to alter the schedule as necessary, with notification to students.

Please see the appendices for the class schedule.

Core Values Commitment
The College of Education and Human Development is committed to collaboration, ethical leadership, innovation, research-based practice, and social justice. Students are expected to adhere to these principles: http://cehd.gmu.edu/values/

GMU Policies and Resources for Students

Policies
- Students must adhere to the guidelines of the Mason Honor Code (see https://catalog.gmu.edu/policies/honor-code-system/).

- Students must follow the university policy for Responsible Use of Computing (see http://universitypolicy.gmu.edu/policies/responsible-use-of-computing/).

- Students are responsible for the content of university communications sent to their Mason email account and are required to activate their account and check it regularly. All communication from the university, college, school, and program will be sent to students solely through their Mason email account.
• Students with disabilities who seek accommodations in a course must be registered with George Mason University Disability Services. Approved accommodations will begin at the time the written letter from Disability Services is received by the instructor (see http://ods.gmu.edu/).

• Students must follow the university policy stating that all sound emitting devices shall be turned off during class unless otherwise authorized by the instructor.

Campus Resources

• Support for submission of assignments to Tk20 should be directed to tk20help@gmu.edu or https://cehd.gmu.edu/aero/tk20. Questions or concerns regarding use of Blackboard should be directed to http://coursesupport.gmu.edu/.

• For information on student support resources on campus, see https://ctfe.gmu.edu/teaching/student-support-resources-on-campus

For additional information on the College of Education and Human Development, please visit our website https://cehd.gmu.edu/students/.

Appendix A

Assessment Rubric(s)
There is no CAEP required assessment for this course. Course-specific rubrics will be distributed in class and posted on the class website.

Appendix B

Tentative Class Bibliography
The tentative class bibliography begins on the next page. It will be revised after the first class meeting depending on the background and expertise of the students enrolled in the class.

Appendix C

Tentative Course Schedule
The proposed schedule appears as the last pages of the syllabus. This is very likely to change based on the need of the students. We will speak of this on the first night of class.


# Appendix C

## Tenetative Course Schedule EDSE 846 001 Spring, 2018

<table>
<thead>
<tr>
<th>Mtg</th>
<th>Date</th>
<th>Topic</th>
<th>Preparation</th>
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<tbody>
<tr>
<td>1</td>
<td>01/24</td>
<td>Course overview</td>
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<td>Assessment, evaluation, and accountability in special education.</td>
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<td>The role of assessment and evaluation in new initiatives: RTI, EBPs,</td>
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<td>PBSs, UDL, etc.</td>
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<td>01/31</td>
<td>Understanding Scales and their Development I</td>
<td>Devellis (2017) pp 1-38</td>
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<td>Devillis (2017)</td>
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<td>Brigham, (2017)</td>
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<td>3</td>
<td>02/07</td>
<td>Basic Considerations for Scale Development</td>
<td>Devellis (2017) pp. 39-104</td>
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<td>Test development in special education research: Construct validity</td>
<td>Robertson (2003)</td>
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<td>Choosing assessment and instrumentation for a research study:</td>
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<td>Existing instruments vs. newly developed instruments</td>
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<td>Bordelon &amp; Bandury (2005)</td>
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<td>Horner et al. (2004)</td>
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<td>02/14</td>
<td>Guidelines for Scale Development</td>
<td>Devellis (2017) pp. 105-152</td>
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<td>Swanson &amp; Orosco - in Scruggs &amp; Mastropieri (2011)</td>
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<td>Cress, et al. (2012)</td>
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<td>Eaves, Rabren, &amp; Hall (2012)</td>
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<td>02/21</td>
<td>Exploratory and confirmatory factor analysis</td>
<td>Devellis (2017) pp. 153-204</td>
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<td>Reliability and validity of the research instrument</td>
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<td>02/28</td>
<td>Locating existing scales, measures and related resources.</td>
<td>TBA</td>
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<td>03/07</td>
<td>Overview of Item Response Theory (IRT)</td>
<td>Devellis (2017) pp. 205-234</td>
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<td>Standardized assessment and instrumentation in special education</td>
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<td>Appropriateness to diverse learners</td>
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<td>Response to Intervention (RTI)</td>
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<td>Curriculum-based measures in special education research</td>
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<td>Espin et al., (2013)</td>
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<td>03/14</td>
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<td>No class, Mason Spring Break</td>
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<td>8</td>
<td>03/21</td>
<td>Assessment of complex environments:</td>
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<td>Validating observational measures</td>
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<td>Fidelity of implementation (RTI, EBPs, PBSs, UDL)</td>
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<td>Social Validity</td>
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<td>Kortering, McClannon, &amp; Braziel (2008)</td>
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<td><strong>Project Update Presentation</strong></td>
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<td>Gresham, et al. (2000)</td>
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<td>Jones &amp; Brownell (2013)</td>
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<td>9</td>
<td>03/28*</td>
<td>What have we learned so far?</td>
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<td>Mid-term/Review Exam</td>
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<td>04/04</td>
<td>Intro to single case methods in validating scales and measures.</td>
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<td>Implementation issues: RTI, EBPs, PBSs, UDL</td>
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<td>Reliability and validity of new initiatives</td>
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<td>O'Connor &amp; Sanchez (2011)</td>
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<td>04/11</td>
<td>Overview of Regression discontinuity</td>
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<td>Research on evaluation methods for educational programs and curricula</td>
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<td>Posavec &amp; Carey (2006)</td>
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<td>Noell et al., (2005)</td>
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<td>12</td>
<td>04/18</td>
<td>Graphic and statistical analysis of regression discontinuity designs.</td>
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<td>Use of technology for assessment and evaluation in special education research</td>
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<td>Agrawal, Allen-Bronaugh, &amp; MASTROPieri - in Scruggs &amp; MASTROPieri (2011)</td>
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<td>Seemelroth &amp; Johnson (2013)</td>
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<td>13</td>
<td>04/25</td>
<td>The analysis of data from integrated single case and group designs</td>
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<td>Issues and future directions in special education assessment research</td>
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<td>McMaster, Ritchey, &amp; Lembke (2011)</td>
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<td>05/02</td>
<td><strong>Final Project Presentations of Applied Project</strong></td>
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<td>Final Presentations</td>
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<tr>
<td>15</td>
<td>05/09</td>
<td>Final Essay due</td>
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* Additional readings may be provided by the instructor for some topics.