EDSE 590: Research Methods in Special Education

Instructor: Judy Ericksen
Section #: B01
Time: 4:30 – 7:10 p.m., Tuesdays and Thursdays
Location: Enterprise Hall, room 173
Phone: 703-876-5205
Email: jerickse@gmu.edu or jerickse@erols.com
Office Hours: By appointment

Course Description

Describes fundamental concepts and practices in educational research in special education. Specific applications of educational research methods to problems in special education will be covered. Emphasis is on reviewing and critiquing special education research and applied classroom research for teachers.

Student Outcomes

Upon completion of this course, students will be able to:

- Identify and understand different models of educational research suitable for different research purposes in special education
- Describe and discuss basic theories and methods of quantitative experimental and quasi-experimental research in special education
- Describe and discuss basic theories and methods of survey research in special education
- Describe and discuss basic theories and methods of single-subject research in special education
- Describe and discuss basic theories and methods of qualitative research in special education
- Describe and implement teacher applications of classroom research to address specific classroom problems.

Relationship of Courses to Program Goals and Professional Organizations

EDSE 590 is part of the George Mason University, Graduate School of Education, and Special Education Masters Degree Program.

Nature of Course Delivery

Learning activities include the following:
1. Class lecture, discussion, and participation.
2. Videotapes and other relevant media presentations.
3. Study and independent library research.
4. Applications with relevant hardware and software.
5. Application activities
6. Class presentations of papers and research projects.

Required Texts


Additional readings are required and will be posted on Blackboard or electronic course reserves.

Recommended (may want to use the library’s copy)


Class Companion Websites:

The class has a companion website on Blackboard: [Http://blackboard.gmu.edu](http://blackboard.gmu.edu). Log in and link to EDSE 590. The syllabus, lecture outlines, and web links will be posted there throughout the semester.

The textbook has a companion website: [http://www.prenhall.com/creswell](http://www.prenhall.com/creswell) that can be accessed to find relevant class information, including the required weekly online quizzes.

Electronic reserves are available on the George Mason University library website. Instructions and password will be distributed in class. Electronic reserves can be accessed at: [http://oscr.gmu.edu](http://oscr.gmu.edu) or [http://library.gmu.edu](http://library.gmu.edu).

NOTE:

This syllabus may change according to class needs.
If you need course adaptations or accommodations because of a disability or if you have emergency medical information to share with instructor or need special arrangements, please call and/or make an appointment with instructor as soon as possible.

The Graduate School of Education (GSE) expects that all students abide by the following:

Students are expected to exhibit professional behavior and dispositions. See [http://gse.gmu.edu](http://gse.gmu.edu) for a listing of these dispositions.

Students must follow the guidelines of the University Honor Code. See [http://www.gmu.edu/catalog/apolicies/#TOC_H12](http://www.gmu.edu/catalog/apolicies/#TOC_H12) for the full honor code.

Students must agree to abide by the university policy for Responsible Use of Computing. See [http://mail.gmu.edu](http://mail.gmu.edu) and click on Responsible Use of Computing at the bottom of the screen.
Students with disabilities who seek accommodations in a course must be registered with the GMU Disability Resource Center (DRC) and inform the instructor, in writing, at the beginning of the semester. See www.gmu.edu/student/drc or call 703-993-2474 to access the DRC.

Evaluation

Students will be evaluated on the following (100 points total):

26 points: Class attendance and class participation as demonstrated by completing and handing in weekly class activities and participating in class discussions. **Excessive absences can result in additional penalties and potential withdrawal from class.** Students are responsible for getting notes or information about class discussion from colleagues prior to next class for any classes missed.

10 points: Pretest (4 points) and posttest (6 points)

14 points: Chapter tests submitted via email before relevant class meetings on chapter readings. Available on website http://www.prenhall.com/creswell. Quizzes should be submitted prior to each class meeting to jerickse@erols.com When submitting tests from the Prentice Hall website be sure to include your name and email address or I will be unable to give you credit. Late quizzes will receive partial credit only.

20 points: Written proposal for Human Subjects Review Board

20 points: Evidence brief/research synthesis

10 points: Final presentation of evidence brief/research synthesis

Detailed information about assignments, including rubrics for grading, is provided below. Points will be deducted for work that is submitted late.

Grading Criteria

A = 95-100%
A- = 90-94%
B = 80-89%
C = 70-79%
F = <70%

*It is recommended that students retain copies of all course products to document their progress through the GSE program. Products from this class can become part of your individual professional portfolio used in your portfolio classes that documents your satisfactory progress through the GSE program and the CEC performance based standards.*

Assignments and Grading Rubrics

Class attendance and participation – 26 points

Purpose: To provide opportunities for students to learn from each other, to apply knowledge and skills, and demonstrate learning within a collaborative activity-based environment.

1. **Attendance and participation** – 14 points, 1 per class session. Students will be asked to assess their level of participation and provide feedback to instructor. The instructor may give additional points (up to 1 per class) for significant contributions to class discussions or based on a pattern of positive participation across the semester.
1 point | Evidence of active participation in discussion or small group activities during class
---|---
.5 points | Evidence of active participation during part of class
0 points | No evidence of active participation

2. In-class assignments – 12 points, 1 for each of 12 class sessions. Assignments will be based on class composition and learning needs. Assignments will be posted on Blackboard.

| 1 point | Assignment turned in by end of class session OR if absent, assignment turned in by beginning of next class
| 0.5 point | Assignment turned in but incomplete or unsatisfactory
| 0 points | Assignment not submitted

Pretest – 4 points

Purpose: To provide feedback to instructor about experiences and knowledge related to special education research and to allow the student to conduct a self-assessment of prior knowledge of selected research terminology and concepts.

| 4 points | Submitted by end of first class; all items completed
| 3 points | Submitted by beginning of class 3 (June 15 at 4:30); all items completed OR submitted by end of first class; less than 20 items completed
| 2 points | Submitted by beginning of class 3 (June 15 at 4:30); less than 20 items completed
| 1 point | Submitted after the beginning of class 3 (June 15 @ 4:30)
| 0 points | Not submitted

Posttest – 6 points (2 points for on-time, 4 points for content)

Purpose: To assess prior and acquired knowledge of special education research terminology and concepts.

On-time points

| 2 points | Submitted on time (by end of class 13)
| 1 point | Submitted by 4:30 on 7/22

Content points

| 4 points | Provides accurate answers to all items – answers are generally complete
| 3 points | Provides accurate answers to all items – some answers may be partial or incomplete
| 2 points | Provides accurate answers to most items – some answers may be partial, incomplete or incorrect
| 1 point | Provides accurate answers to less than 75% of items
| 0 points | Not submitted or does not meet criteria for 1 point

Chapter Quizzes – 14 points

Purpose: To provide opportunity for students to assess understanding of text on an on-going basis. One point will be given for each quiz. (Note: there are two quizzes for Chapter 1.) Students may submit hard copies of quizzes if they desire.

| 1 point | Quiz completed and submitted prior to beginning of class as specified in syllabus.
| 0.5 point | Quiz completed and submitted but received after due date.
| 0 points | Quiz not received by instructor.
**Proposal for Human Subjects Review Board** – 20 points

Purpose: To provide experience in designing a pilot study and writing a proposal for Human Subjects Review.

Any of the research designs covered in class are appropriate. The suggested due date for this assignment is based on the research design selected. All proposals must be turned in by class 12 (July 15). Guidelines for writing the proposal will be covered in class on June 10 and are available at [http://www.gmu.edu/pubs/osp](http://www.gmu.edu/pubs/osp). The research topic for this project should be the same as for the evidence brief/research synthesis. Students will receive on-going instruction and support for designing pilot studies during class sessions that address each research design.

<table>
<thead>
<tr>
<th>Research Design</th>
<th>Suggested Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qualitative design</td>
<td>7/1</td>
</tr>
<tr>
<td>Single subject design</td>
<td>7/8</td>
</tr>
<tr>
<td>Quantitative design</td>
<td>7/6</td>
</tr>
<tr>
<td>Survey</td>
<td>7/15</td>
</tr>
<tr>
<td>Other</td>
<td>7/15</td>
</tr>
</tbody>
</table>

Exceeds Expectation  | Meets Expectation  | Below Expectation |
--- | --- | --- |
Cover page, excluding abstract (2 points) | Information complete, no typos | Information complete, minor typos | Information on form not complete; multiple typos, if handwritten, illegible |
Abstract (7 points) | Good writing style free of mechanical or stylistic errors; addresses all 4 areas completely; includes citations/references to support topic | Minor style errors; generally describes aims, purposes, characteristics, etc well but may be unclear in one area | Multiple writing or stylistic errors; does not address all areas; information provided does not make sense |
Protocol (7 points) | Good writing style, free of mechanical or stylistic errors; addresses 8 or more areas sufficiently | Minor writing errors; addresses 8 or more areas sufficiently | Multiple writing or stylistic errors; does not address areas sufficiently |
Supporting documents (4 points) | Includes all required documents, e.g. copies of instruments, informed consent, approvals; documents adequately convey information required | Includes most supporting documents; documents submitted adequately convey information required | Does not submit supporting documents or documents submitted are poorly written |

Note: 2 points will be deducted for any proposal turned in after July 15, 2004.

**Evidence Brief/Research Synthesis** – 20 points

Purpose: To provide experience locating, synthesizing, and presenting research evidence based on a particular practice issue or instructional strategy or method. A list of possible topics is provided. The instructor must approve your topic before you begin. You will need to collect a minimum of 5 original research studies on your topic. Your paper may be submitted in one of two formats, which will be shared in class and are outlined here. If you wish to use another format, you will need prior approval from the instructor. This paper will provide the basis for your class presentation.

1. Select an area of interest in special education.
2. Complete a literature search of ERIC and PsycINFO and other pertinent databases to identify relevant, original research articles.
3. Obtain and read research articles.
4. Organize and synthesize the information.
5. Prepare the paper based on one of the two formats outlined below, using the American Association Publication Manual (5th edition) as a style guide.
Format 1: Based on the Alerts published by Division of Learning Disabilities and Division for Research of the Council for Exceptional Children. For examples go to http://www.TeachingLD.org

Use the following subject headings:
- What is it? – Description of strategy/method
- For whom is it intended? – Description of population
- How does it work? – Description of how it is delivered/applied
- How practical is it? – Practical implications for users
- How effective is it? – Synthesis of research findings
- What questions remain? – Areas for future research
- How do I learn more? – Sources for further information
- Reference list – Articles used to prepare paper in APA format


Use the following subject headings:
- Introduction – Description of research topic and its importance
- Research question – Should be very specific
- Criteria for selecting evidence – Why you selected the articles you did
- Table of articles – Use at least these columns: reference, study design, sample size, intervention and outcome, summary of results
- Summary of evidence – What are the most important findings
- Implications for users – May include teachers, students, and parents
- Reference list – Articles used to prepare evidence brief in APA format

<table>
<thead>
<tr>
<th></th>
<th>Exceeds Expectation</th>
<th>Meets Expectation</th>
<th>Below Expectation</th>
</tr>
</thead>
<tbody>
<tr>
<td>APA/references (2 pts)</td>
<td>Uses correct APA where applicable; correct citations and references</td>
<td>Minimal errors with APA or typos evidence</td>
<td>Multiple errors in APA; multiple typos or style errors</td>
</tr>
<tr>
<td>Research articles (3 pts)</td>
<td>Articles selected are clearly related to topic; more than 5 original research articles included</td>
<td>Articles selected clearly related to topic; 5 original research articles included</td>
<td>Fewer than 5 original research articles included or articles not related</td>
</tr>
<tr>
<td>Description (5 pts)</td>
<td>Provides clear and concise descriptions of strategies/methods, participants and procedures</td>
<td>Descriptions in most areas clear and concise</td>
<td>Descriptions difficult to follow/unclear</td>
</tr>
<tr>
<td>Synthesis (5 pts)</td>
<td>Thoughtful and thorough review of research; integrates findings from different studies</td>
<td>Synthesis may be limited or incomplete but concisely summarizes findings of studies in meaningful way</td>
<td>Summarizes findings but no evidence of synthesis or thoughtful review</td>
</tr>
<tr>
<td>Connection to practice (5 pts)</td>
<td>Evidence of thoughtful consideration of implications for practice, addresses different stakeholders</td>
<td>Evidence of consideration of implications for practice; reflection may seem cursory or may address only 1 stakeholder</td>
<td>No evidence of connection between findings and practice in paper</td>
</tr>
</tbody>
</table>
**Final presentation – 10 points**

Purpose: To provide an opportunity to practice sharing research-based information quickly and concisely with others.

1. Think about how you would present what you have learned in an IEP meeting or in conversation with your peers. How might you quickly convince someone that this particular strategy should or should not be implemented?

2. Prepare a 2–3 minute talk either supporting or not supporting the implementation of your strategy. It is not necessary to prepare additional materials, although you may if you like. (We don’t often have visual aids or carry our supporting materials around with us.)

3. Think about how others might respond to this information, e.g. what arguments, rebuttals might they make?

Each student will have 2-3 minutes to present their topic and 1-2 minutes to answer a question from a peer.

<table>
<thead>
<tr>
<th></th>
<th>Exceed Expectations</th>
<th>Meets Expectations</th>
<th>Below Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stays within time limit (1 point)</strong></td>
<td>Shares information in 3 minutes or less; answers question in 2 minutes or less</td>
<td>Poised, fluent, makes good eye contact with entire audience, prepared, very persuasive</td>
<td>May seem slightly nervous, maintains eye contact with part of audience, fluent, prepared, fairly persuasive</td>
</tr>
<tr>
<td><strong>Presentation style (3 points)</strong></td>
<td>In-depth knowledge of topic evident; cites research; thorough yet concise sharing of information</td>
<td>Good knowledge of topic; refers to research, concise sharing of information</td>
<td>Knowledge of topic seems poor; does not support statements by referring to research</td>
</tr>
<tr>
<td><strong>Content (3 points)</strong></td>
<td>Responds to question by clarifying information or providing additional information and cites research to support this</td>
<td>Responds to question by clarifying information or providing additional information</td>
<td>Does not address question or provide answer</td>
</tr>
<tr>
<td>Class</td>
<td>Topic</td>
<td>Assignments due</td>
<td>Readings due</td>
</tr>
<tr>
<td>---------</td>
<td>----------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>Class 1</td>
<td>Class Introduction; Overview of research in special education; Blackboard and textbook website</td>
<td>Complete pretest and turn in before leaving class. Identify possible research topics.</td>
<td></td>
</tr>
<tr>
<td>6/8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Class 2</td>
<td>Guest Presenter: Sarah Sheehan, GMU Librarian – Meet in Johnson Center Library 2nd floor Instruction Room. Literature searching in the library and more.</td>
<td>Submit chapter 4 quiz to <a href="mailto:jerickse@gmu.edu">jerickse@gmu.edu</a> prior to beginning of class. ICA: Turn in selected keywords for searching before leaving class.</td>
<td>Chapter 4</td>
</tr>
<tr>
<td>6/10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Class 3</td>
<td>Guest Presenter: Sandra Sanford, Compliance Office, Sponsored Programs: Protection of Human Subjects in Research</td>
<td>Submit chapter 1 and 2 quizzes to <a href="mailto:jerickse@gmu.edu">jerickse@gmu.edu</a> prior to beginning of class (note: there are 2 quizzes for chapter 1) ICA: Turn in tentative research questions.</td>
<td>Chapters 1 and 2 Read information at website <a href="http://www.gmu.edu/pubs/osp/">http://www.gmu.edu/pubs/osp/</a></td>
</tr>
<tr>
<td>6/15</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Class 4</td>
<td>Identifying research problems, purposes, and hypotheses Variables; coding articles</td>
<td>Submit chapter 3 and 5 quizzes to <a href="mailto:jerickse@gmu.edu">jerickse@gmu.edu</a> prior to the beginning of class ICA: Coding schemes</td>
<td>Chapters 3 and 5</td>
</tr>
<tr>
<td>6/17</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Class 5</td>
<td>Using a qualitative approach</td>
<td>Submit chapter 7 quiz to <a href="mailto:jerickse@gmu.edu">jerickse@gmu.edu</a> prior to the beginning of class ICA: Observation notes</td>
<td>Chapter 7</td>
</tr>
<tr>
<td>6/22</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Class 6</td>
<td>Analyzing qualitative data</td>
<td>Submit chapter 9 quiz to <a href="mailto:jerickse@gmu.edu">jerickse@gmu.edu</a> prior to the beginning of class ICA: Article analysis</td>
<td>Chapter 9</td>
</tr>
<tr>
<td>6/24</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Class 7</td>
<td>Single subject research</td>
<td>ICA: Article analysis</td>
<td>Chapter 11, pp. 339-341</td>
</tr>
<tr>
<td>6/29</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Class 8</td>
<td>Using a quantitative approach</td>
<td>Submit chapter 6 and 11 quizzes to <a href="mailto:jerickse@gmu.edu">jerickse@gmu.edu</a> prior to the beginning of class ICA: Article analysis</td>
<td>Chapters 6 and 11</td>
</tr>
<tr>
<td>7/1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Class 9</td>
<td>Survey research – What is it? How can we implement this design?</td>
<td>Submit chapter 13 quiz to <a href="mailto:jerickse@gmu.edu">jerickse@gmu.edu</a> prior to the beginning of class Bring disks and files from blackboard to pc lab for practice. ICA: Survey questions</td>
<td>Chapter 13</td>
</tr>
<tr>
<td>7/6</td>
<td>IN 328</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Class 10</td>
<td>Statistical testing; SPSS practice in the computer labs. Analyzing data.</td>
<td>Submit chapter 8 quiz to <a href="mailto:jerickse@gmu.edu">jerickse@gmu.edu</a> prior to the beginning of class ICA: Variables worksheet</td>
<td>Chapter 8</td>
</tr>
<tr>
<td>7/8</td>
<td>IN 328</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Class 11</td>
<td>Statistical testing; SPSS practice in the computer labs. Analyzing data.</td>
<td>Submit chapter 10 quiz to <a href="mailto:jerickse@gmu.edu">jerickse@gmu.edu</a> prior to the beginning of class ICA: Data entry/analysis</td>
<td>Chapter 10</td>
</tr>
<tr>
<td>7/13</td>
<td>IN 328</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Class 12</td>
<td>Action Research. The teacher as a researcher. Drawing conclusions from special education research and writing research reports for publication</td>
<td>Submit chapter 18 quiz to <a href="mailto:jerickse@gmu.edu">jerickse@gmu.edu</a> prior to the beginning of class Last day to submit Human Subjects Research Proposal. ICA: Teacher research</td>
<td>Chapter 18</td>
</tr>
<tr>
<td>7/15</td>
<td>IN 328</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Class 13</td>
<td>So what have we learned about research in special education? Summary and conclusions Post test</td>
<td>Post tests due before leaving class Evidence briefs due ICA: Research scenarios</td>
<td></td>
</tr>
<tr>
<td>7/20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Class 14</td>
<td>Student presentations Course evaluation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7/22</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Class 15</td>
<td>Final/make-up class if needed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7/27</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ICA: In class assignments (tentative). Assignments may be changed based on class needs.