

**George Mason University**  
**College of Education and Human Development**  
**Special Education**

**EDSE 590**  
**Research Methods in Special Education**

Section #: FCPS/Cohort 15  
 Time: 4:30-9:00 PM (9 sessions)  
 Location: Fairfax High School--Room A149  
 Instructor: Nicole A. Conners, Ph.D.  
 Email: Nicole.Conners@fcps.edu  
 Phone: 571-423-4178 Cell: 703-309-9232  
 Office: Fairfax Ridge, Cube 2-052  
 Office Hours: By Appointment-please call to schedule

***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 theories and methods of educational measurement.\*
- 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. The program aligns with the standards for teacher licensure established by the Council for Exceptional Children, the major special education professional organization in the United States. As such the curriculum for the course includes competencies for teaching students with disabilities from preschool through grade 12. The CEC Standards are listed on the following web site: [http://www.cec.sped.org/ps/perf\\_based\\_stds/common\\_core\\_4-21-01.html](http://www.cec.sped.org/ps/perf_based_stds/common_core_4-21-01.html)

This course will incorporate the evidence-based practices (EBPs) relevant to educational research and special education research designs specifically. These EBPs are indicated with an asterisk (\*) in this syllabus. Evidence for the selected research-based practices is informed by meta-analysis, literature reviews/synthesis, the technical assistance networks which provide web-based resources, and the national organizations whose mission is to support students with disabilities. We address both promising and emerging practices in the field of special education. This course will provide opportunities for students to take an active, decision-making role to thoughtfully select, modify, apply, and evaluate EBPs in order to improve outcomes for students with disabilities. Students may choose an action research study design as a final project to implement and analyze effective evidence based practices for use with students with disabilities.

### ***Graduate School of Education Statements of Expectations***

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

- Students are expected to demonstrate professional behavior and dispositions. See [www.gse.gmu.edu](http://www.gse.gmu.edu) for a listing of these professional 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> 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](http://www.gmu.edu/student/drc) or call 703-993-2474 to access the DRC.

### ***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 Text***

McMillan, *Educational Research: Fundamentals for the Consumer*, 5th edition, Pearson, ISBN 0205508308

American Psychological Association, *Publication Manual of the American Psychological Association*, 6th edition, ISBN 9781433805615 **[Make sure you get the "2nd printing." First printing had errors.]**

Other readings, including special education research studies will be assigned by instructor.

### ***Class Companion Websites***

The class has a companion website on Blackboard: <http://blackboard.gmu.edu>. Log in and link to EDSE 590. You will be logged into Blackboard with your gmue.edu mail account. The syllabus, handouts, and web links will be posted there throughout the semester.

**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 email and/or make an appointment with instructor as soon as possible.

***Evaluation and Points by Activity***

Students will be evaluated on the following (**TOTAL: 430 points**)

**100 points: Class Attendance and Participation (approx. 10 points each class)**

Completion of weekly class activities, participation in class discussions, and project presentation update discussions throughout the semester. Weekly warm-ups and closure activities will be included in class participation points. **Points missed due to absences can not be made up. Excessive absences can result in additional penalties and potential withdrawal from class.**

**30 points: Human Subjects**

**15 pts:** Completion of GMU **Mandatory** Training for Persons Conducting Research Using Human Subjects that is accessed at <http://www.citiprogram.org>. Seven learner modules in the Basic Course are required prior to conducting any research at Mason using human subjects. In addition, if the information in any of the optional modules relates to your research, you are required to complete the appropriate module.

**15 pts:** Completion of a GMU Human Subjects Application Form that is available on website:

<http://www.gmu.edu/research/ORSP/HumanFormsAndInstructions.html>

**100 points: Final exam (take home exam)** Provided on the second night of class and may be worked on throughout the course.

**100 points: Research Paper: Signature Assignment (you may work with another person on the project of your choice)**

Completion of 1 of 2 options:

- **Option 1:** Written research application project (\*action research with a class or other type of application study)
- **Option 2:** A 15-20-page literature review paper (\*based on current literature)

**100 points: Poster & Poster Sessions Presentation**

Final presentation of research project or literature review paper.

**Grading Criteria**

A = 95-100%

A- = 90-94%

B = 80-89%

C = 70-79%

F = <70%

### ***TaskStream***

Students must retain electronic copies of all graded course products to document their progress in the Special Education program. Products from these classes are likely to become part of your individual performance based assessment portfolio (EDSE 791 & 792).

Each course in the program has an identified signature assignment. A signature assignment is a specific assignment, presentation, or project that best demonstrates one or more CEC standard(s) connected to the course. A signature assignment is evaluated in two manners. The first is for a grade based on the instructor's grading rubric. The second is for GSE program evaluation. Each student must add the identified signature assignment for each course into the TaskStream portfolio system. Additionally, students completing the portfolio courses will build their portfolios electronically via TaskStream (<https://www.taskstream.com/pub/>). In order to assure your signature assignments for these courses will be (a) included in your electronic portfolio and (b) available for your instructor to evaluate in connection with the GSE program evaluation, you must electronically add the completed signature assignment to your electronic portfolio, via TaskStream.

The electronic submission to TaskStream is likely to be in addition to the version you submit to your instructor for a graded evaluation.

Instructions for submitting work to TaskStream will be provided to you.

## **ASSIGNMENTS**

### **Human Subjects Assignments**

#### ***Training Modules for Persons Conducting Research Using Human Subjects (15 points)***

GMU Mandatory Training for Persons Conducting Research Using Human Subjects is accessed at <http://www.citiprogram.org>. Seven learner modules in the Basic Course are required prior to conducting any research at Mason using human subjects. In addition, if the information in any of the optional modules relates to your research, you are required to complete the appropriate module. **You will turn in a copy of the printed certificate on the due date provided to show completion of the seven modules in the basic course. DUE MARCH 25th**

#### ***GMU Human Subjects Research Application Form (15 points)***

The research application project is designed to provide experience with the following GMU requirements for conducting research with human subjects:

By Federal Policy ALL research activities involving human participants that are directed by a GMU faculty member, staff member, or student or involve GMU faculty, staff, or students as participants, must be reported to the Office of Sponsored Programs for review. The Human Subjects Review Board (HSRB) serves as the GMU institutional review board (IRB). As specified in the Code of Federal Regulations, 45 CFR 46, Protection of Human Subjects, certain categories of human subjects research may be classified as exempt from further IRB review. The Office of Sponsored Programs will determine if an activity is exempt or not exempt from further HSRB review. You may not begin research involving human participants until you receive written notification from this office. **DUE APRIL 15th**

### ***Scoring Rubric for GMU Human Subjects Research Application***

Exemplary application (15 points): Appropriate and clearly described answers to questions including: implementation procedures, careful measurement and evaluation of results, thorough and appropriate discussion of implications of findings. Good writing style, free of mechanical or stylistic errors, appropriate use of APA format.

Adequate application (12-14 points): Good overall proposal, lacking in one or two of the criteria for an exemplary paper. Not entirely reflective or thoughtful, may be vague in some place, or minor writing style errors may be present.

Marginal application (9-11 points): Overall, acceptable but with one or more significant problems. Contains some useful information, but may have substantial problems with evaluation, writing style, or implementation of project.

Inadequate application (1-8 points): Proposal with substantial problems in important areas such as writing, implementation of intervention, evaluation of results, overall thoughtfulness. Does not adequately respond to questions.

Unacceptable/no application (0 points): Completely unsatisfactory proposal; or no proposal made.

Exemplary application	Adequate application	Marginal application	Inadequate application	Unacceptable/no application
15	12-14	9-11	1-8	0

#### ***Take Home Final Exam (100 points)***

At the beginning of the class you will receive a take home final exam. You will choose when to work on the exam~ either through the length of the course or at the end of the semester. **My recommendation is that you work on the final exam through the entire length of the course as topics/questions are discussed. DUE MAY 6th**

#### ***Final Project DUE MAY 13th—LAST NIGHT OF CLASS***

##### ***Option 1: Research Application Project (100 points) (you may work with a partner on the final project)***

The research application project is designed to provide experience in designing, implementing, and evaluating a research application project in special education. Any of the research designs covered are appropriate. Specific guidelines for the assignment will be provided. **Be sure to have your research question and design approved by the instructor PRIOR to beginning implementation of your project. A hard copy AND an electronic copy of the project should be submitted by 4:30 pm on the due date.**

#### ***Scoring Rubric for Research Application Project (100 points)***

Exemplary paper (95-100 points): Appropriate topic, thorough and thoughtful review of previous research, appropriate and clearly described implementation procedures, careful measurement and evaluation of results, thorough and appropriate discussion of implications of findings. Good writing style, free of mechanical or stylistic errors, appropriate use of APA format.

Adequate paper (85-94 points): Good overall paper, lacking in one or two of the criteria for an exemplary paper. Not entirely reflective or thoughtful, or minor writing style errors may be present.

Marginal paper (70-84 points): Overall, acceptable but with one or more significant problems. Contains some useful information, but may have substantial problems with evaluation, writing style, or implementation of project.

Inadequate paper (1-69 points): Paper with substantial problems in important areas such as writing, implementation of intervention, evaluation of results, overall thoughtfulness. Contains little or no information of value to special education practice.

Unacceptable/no paper (0 points): Paper with no value whatsoever relative to the assignment, or no paper turned in at all. May describe a project of no value that was not approved for this assignment.

Exemplary paper	Adequate paper	Marginal paper	Inadequate paper	Unacceptable/no paper
95-100	85-94	70-84	1-69	0

***Option 2: Library Research Literature Review (100 points)***

You may select to complete a literature review. You may select to complete a traditional research literature review paper of a selected intervention area. You will need to collect 20 original research studies on a particular topic to include in your review paper (from journals or electronic journals). Specific guidelines will be provided. **Have your topic approved prior at the beginning of your research process. A hard copy AND an electronic copy of the project should be submitted by 4:30 pm on the due date.**

***Scoring Rubric for Library Research Literature Review***

Exemplary paper (95-100 points): Appropriate topic, thorough and thoughtful review of previous research. Good writing style, free of mechanical or stylistic errors, appropriate use of APA format.

Adequate paper (85-94 points): Good overall paper, lacking in one or two of the criteria for an exemplary paper. Not entirely reflective or thoughtful, or minor writing style errors may be present.

Marginal paper (70-84 points): Overall, acceptable but with one or more significant problems. Contains some useful information, but may have substantial problems with evaluation, writing style, or review of relevant literature.

Inadequate paper (1-69 points): Paper with substantial problems in important areas such as writing, evaluation of research, overall thoughtfulness. Contains little or no information of value to special education practice.

Unacceptable/no paper (0 points): Paper with no value whatsoever relative to the assignment, or no paper turned in at all. May describe a literature of no value or relevance, or that was not approved for this assignment.

Exemplary paper	Adequate paper	Marginal paper	Inadequate paper	Unacceptable/no paper
95-100	85-94	70-84	1-69	0

**Poster & Poster Sessions Presentation (100 points)**  
**DUE MAY 13th—LAST NIGHT OF CLASS**

1. Make a brief (10-minute) poster presentation that summarizes your written research project or literature review. Be prepared to answer questions about your project. More details will be provided about the format for posters. *Examples of projects/posters will be provided in class.*
2. Prepare visual materials/poster for use in your presentation –copies of charts, graphs and photos, etc...
3. **Prepare a one-page summary hand-out for classmates.**

***Scoring Rubric for Poster and Presentations***

Exemplary poster & presentation (95-100 points): Poster clearly describes major elements of the project; poster reflects clarity, organization, knowledge and interest in the content being presented; reflects a high level of preparation; makes effective use of visual format and presents an interesting, attractive appearance; describes very clearly the methods under consideration; presentation keeps the audience engaged; provide information of interest and value to audience. Presenter is able to answer basic audience questions about the proposal with poise, clarity, and thoughtfulness.

Adequate presentation (85-94 points): Good overall poster presentation, but may be lacking in one or two of the criteria specified in exemplary response. May seem a little less polished or prepared, may be vague in some places, or may fail to completely answer audience questions.

Marginal presentation (70-84 points): Poster presentation provides relevant information, but demonstrates only a limited understanding of the topic or project. Style, organization, or visual elements may be less than adequate. Responses to audience questions may reflect lack of understanding of relevant research methods.

Inadequate presentation (1-69 points): Weak overall presentation that reflects very little knowledge of topic or project. May appear very poorly prepared, or may not have followed directions. Style or visual elements may be inadequate or lacking.

Unacceptable/no presentation (0 points): Completely unsatisfactory presentation, with no reasonable reference to topic or project; or no presentation made.

Exemplary poster & presentation	Adequate poster & presentation	Marginal poster & presentation	Inadequate poster & presentation	Unacceptable/no poster and/or presentation
95-100	85-94	70-84	1-69	0

## CLASS SCHEDULE

Date	Class Topic & Reading Assignments	Class Activities/Assignments
Class 1 March 11 <sup>th</sup> , 2010	<b>Course Overview</b> Review syllabus Quantitative/Qualitative Research Methodology Overview What teachers think of research-based practices (research article discussion)-teacher perspectives List of Special Education Journals	<b>Assignments Due:</b> NONE  <b>Class Assignments: Varied Activities</b> Opening Activity-research methodology Quantitative/Qualitative Word Sorts Research-based practices article and summary
Class 2 March 18 <sup>th</sup> , 2010	<b>Reviewing the literature and defining a question to explore</b> Introduction to Protection of Human Subjects in Research On-line modules (CITI) Human Subjects requirements-models/samples Introduce final project –models/samples Research Critiques-quantitative and qualitative critique APA Editing Exercise	<b>Assignments Due:</b> Chapter 1, 2, 3  <b>Class Assignments:</b> In-class independent research critiques with pair/share activity
Class 3 March 25 <sup>th</sup> , 2010	<b>Qualitative Research: Research Designs and Analysis</b>  Start “practice” HSRB process in class  <b>Class will meet in the Education Library at Sprague Center or GMU Library (more details coming) 4:30-6:00 PM Please your lap tops to the Education Library. We will meet in Room 3 at Sprague Center for the rest of class.</b>	<b>Assignments Due:</b> Chapter 5 and 11  <b>CITI Program Human Subjects Certification due. Email certificate to: <a href="mailto:Nicole.Conners@fcps.edu">Nicole.Conners@fcps.edu</a></b>  <b>Class Assignments:</b> Bring a peer-reviewed research article to use for HSRB application process or use your own research topic/study to fill out the form  Practice qualitative coding activity
<b>April 1, 2010</b>	<b>FCPS SPRING BREAK –NO CLASS</b>	<b>FCPS SPRING BREAK –NO CLASS</b>
Class 4 April 8 <sup>th</sup> , 2010	<b>Quantitative Research: Research Designs</b>  (Nonexperimental and experimental research designs: survey, single subject, experimental and correlational designs)  Provide topic/idea for final project  <b>Final projects</b> - we will spend time getting started on this process	<b>Assignments Due:</b> Chapters 8 & 9  <b>Class Assignments:</b> <b>Download the free version of quantitative software</b>  <b>Come with a topic or idea for final project</b>
Class 5 April 15 <sup>th</sup> , 2010	Work on coding assignment with a partner  Mid-course evaluation	<b>Assignments Due:</b> Chapters 6, 7, 10  <b>HSRB application due. Email application or put in digital dropbox.</b>



Class 6 April 22 <sup>nd</sup> , 2010	Quantitative Research: Research Designs continued Quantitative/Qualitative Research <b>Data Analysis</b>  Educational Measurement and Measures and <b>Statistical Inferences</b>  <b>Bring in draft papers/projects</b> - we will spend time reviewing/working	<b>Assignments Due:</b> Chapters 6, 7, 10
Class 7 April 29th, 2010	Discussion and Conclusions  <b>Bring in draft papers/projects</b> - we will spend time reviewing/working	<b>Assignments Due:</b>  Chapter 13
Class 8 May 6th, 2010	Mixed Methods and Action Research  <b>TENTATIVE GUEST SPEAKER</b>  <b>Bring in draft papers/projects</b> - we will spend time reviewing/working	<b>Assignments Due:</b>  Chapter 12  <b>TAKE HOME FINAL EXAM DUE</b>
Class 9 May 13th, 2010	<b>PROJECT PRESENTATIONS —poster sessions for final projects</b>	<b>Assignments Due:</b>  Poster presentations  <b>PAPERS AND POSTERS DUE</b>

***Scoring Rubric for GMU Human Subjects Research Application***

Exemplary application (15 points): Appropriate and clearly described answers to questions including: implementation procedures, careful measurement and evaluation of results, thorough and appropriate discussion of implications of findings. Good writing style, free of mechanical or stylistic errors, appropriate use of APA format.

Adequate application (12-14 points): Good overall proposal, lacking in one or two of the criteria for an exemplary paper. Not entirely reflective or thoughtful, may be vague in some place, or minor writing style errors may be present.

Marginal application (9-11 points): Overall, acceptable but with one or more significant problems. Contains some useful information, but may have substantial problems with evaluation, writing style, or implementation of project.

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Exemplary application	Adequate application	Marginal application	Inadequate application	Unacceptable/no application
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***FIRST OPTION FOR SIGNATURE ASSIGNMENT:  
Scoring Rubric for Research Application Project (100 points)***

Exemplary paper (95-100 points): Appropriate topic, thorough and thoughtful review of previous research, appropriate and clearly described implementation procedures, careful measurement and evaluation of results, thorough and appropriate discussion of implications of findings. Good writing style, free of mechanical or stylistic errors, appropriate use of APA format.

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Unacceptable/no paper (0 points): Paper with no value whatsoever relative to the assignment, or no paper turned in at all. May describe a project of no value that was not approved for this assignment.

Exemplary paper	Adequate paper	Marginal paper	Inadequate paper	Unacceptable/no paper
95-100	85-94	70-84	1-69	0

***\*\*Failure to post your signature assignment in taskstream by the end of the last class on Thursday, May 13th will result in an INCOMPLETE grade for the class until the paper is posted for professor evaluation.***

**SECOND OPTION FOR SIGNATURE ASSIGNMENT:*****Scoring Rubric for Library Research Literature Review***

Exemplary paper (95-100 points): Appropriate topic, thorough and thoughtful review of previous research. Good writing style, free of mechanical or stylistic errors, appropriate use of APA format.

Adequate paper (85-94 points): Good overall paper, lacking in one or two of the criteria for an exemplary paper. Not entirely reflective or thoughtful, or minor writing style errors may be present.

Marginal paper (70-84 points): Overall, acceptable but with one or more significant problems. Contains some useful information, but may have substantial problems with evaluation, writing style, or review of relevant literature.

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***Scoring Rubric for Poster and Poster Session Presentations***

Exemplary poster & presentation (95-100 points): Poster clearly describes major elements of the project; poster reflects clarity, organization, knowledge and interest in the content being presented; reflects a high level of preparation; makes effective use of visual format and presents an interesting, attractive appearance; describes very clearly the methods under consideration; presentation keeps the audience engaged; provide information of interest and value to audience. Presenter is able to answer basic audience questions about the proposal with poise, clarity, and thoughtfulness.

Adequate presentation (85-94 points): Good overall poster presentation, but may be lacking in one or two of the criteria specified in exemplary response. May seem a little less polished or prepared, may be vague in some places, or may fail to completely answer audience questions.

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