



EDUR 8434
Field-based Educational Research
Fall 2017

Bryan W. Griffin

1. Office Information

Contact Hours

Varies for on-line courses, therefore it is best to contact me electronically to arrange an appointment.

Telephone Numbers

Office (Room 2128 College of Education Building): 912-478-0488 (don't use, contact me electronically)
Department of Curriculum, Foundations, and Research: 912-478-5091
Department of Curriculum, Foundations, and Research, FAX: 912-478-5382

E-Mail

Use Folio mail to contact me. If Folio is not working, my regular e-mail address is bwgriffin@GeorgiaSouthern.edu, but please use Folio for course-related communications.

Mail

Department of Curriculum, Foundations, and Reading
P.O. Box 8144
College of Education
Georgia Southern University
Statesboro, GA 30460

2. Catalog Description of EDUR 8434

Designed to assist specialist-level students in developing a sound research proposal for the conduct of an independent research project required as part of their Ed.S. program. Repeatable up to 9 credit hours. Prerequisite: EDUR 8131 or equivalent.

3. Course Material

Required Text

No required texts.

EdS Guidelines

The EdS Guidelines provide important information about the role of student, advisor, committee and chair, and instructors. The guidelines also include forms and formats that must be addressed at each step of the research process. The guidelines and forms can be found here:

<http://coe.georgiasouthern.edu/students/eds-forms/actionresearch-fall2016>

APA Style

Everything submitted must follow APA (6th ed.) guidelines:

Publication manual of the American Psychological Association (6th ed.). (2009). Washington, DC: American Psychological Association.

Some on-line sources for APA style can be found at the following web addresses:

<http://owl.english.purdue.edu/owl/resource/560/01/>

<http://www.wisc.edu/writing/Handbook/DocAPA.html>

<http://www.apastyle.org>

Supplemental Educational Research Text

While no text is required for this course, some may find a text useful as a reference source. Note that in many cases relevant information can be found via an on-line search for the specific issue at hand (e.g., Google search for sampling, validity, t-test, etc.). If you prefer a printed text, then the following may be useful:

Gall, M.D., Borg, W.R., & Gall, J.P. (1996 or later). *Educational Research: An Introduction* (6th, 7th, or 8th ed.). White Plains, NY: Longman. ISBN: 0-8013-0980-8.

- Little has been changed among 6th, 7th, and 8th edition, so any of these are acceptable. Note that you may be able to find the 6th or 7th edition for less than \$10 online (see below).
- Sometimes these texts can be found at GSUstore.com, or from various on-line retailers, such as Walmart.com, Barnesandnoble, Amazon, Varsitybooks, Borders, Buybooks. For new books, Walmart may have the lowest prices, but also check Pricescan.com and Froogle.com for price comparisons

4. Draft Submission

The course calendar, listed below, indicates due dates for draft proposals. Submit all proposal drafts in Folio as a PDF attachment. Do not send drafts via e-mail. If you seek a cursory review of a few paragraphs, then send the paragraphs by Folio as part of the Folio mail message text or as a PDF file.

Sources to convert word processing files to PDF:

- Free web page that convert files to PDF over the internet:
 - <http://convert.neevia.com>
 - <http://www.pdfonline.com>
- I have used the following free software to create PDF files (it leaves no watermark):
 - <http://www.primopdf.com>
- I also use OpenOffice, which is also free, to create PDF files. Open Office is a free Office Suite similar to Microsoft Office (Open Office leaves no watermark): <http://www.openoffice.org>

If you want further tips and links for converting to free PDFs, read this site

- <http://www.pruittfamily.com/paul/freepdf.htm>

5. Course Calendar (subject to change during semester)

Week	Date	Topic
1	8/14	See discussion forum post during first week of semester about the course syllabus, course requirements, and approval of research topics. If you would like to meet in person or have a live that, contact me with a Folio mail message and we can arrange an appointment.
	8/18	Summary of proposal due (1 to 2 pages; see course page in for details)
2	8/21	
3	8/28	
4	9/4	
5	9/11	Draft 1 proposal due. This draft must be as complete as possible. Include all sections and drafts of instruments/interview questions, references, etc. It is important that drafts of student developed questions/questionnaires be included with this draft so we can begin process of refinement. Introduction no longer than 1.5 pages, literature review no more than 4.5 pages, summary no more than 1 page.
6	9/18	
7	~ 9/25	Draft 1 will be returned as a PDF file in Folio.
8	10/2	
9	10/9	Draft 2 proposal due.
10	~10/16	Draft 2 will be returned as a PDF file in Folio.
11	10/23	
12	10/30	Draft 3 proposal due. Include IRB materials (narrative and CITI training certificate).
13	11/6	Draft 3 will be returned as a PDF file in Folio.
14	11/13	
	11/20	Thanksgiving Break
15	11/27	Completed proposal due. Include IRB materials (narrative and CITI training certificate); also mail or e-mail copy of signed Form B (see link to Form B above in EdS Guidelines [topic #3 above]).
	12/4	

6. Attendance

You may come and go as you please during class or any chat sessions (if any are held); attendance is not recorded in EDUR 8434 except for verification purposes at the outset of the semester.

7. Academic Integrity Expectations

Students are expected to abide by the GSU Student Conduct Code and Regulations regarding academic integrity. Academic misconduct such as cheating and plagiarism will be reported to the Office of Judicial Affairs and appropriate penalties imposed that could affect course grade, such as a grade of zero on the targeted activity or test. See GSU's *Student Conduct Code* for relevant details.

Any form of academic dishonesty will result in an F for the course. (For plagiarism, see comments below.)

8. Disability Accommodations

Georgia Southern University is committed to providing an equal educational opportunity to qualified students with disabilities. The Student Disability Resource Center (SDRC) is the primary source of services for these students. Students with an array of disabilities are eligible for services; however, documentation standards exist for all conditions. For further information contact the SDRC at 871-1566. If you have a documented disability, please provide me with the appropriate GSU documentation.

9. Grades, Tardy Proposals, and Plagiarism

(a) Grades

Course grade will be based upon the (a) completed proposal and (b) IRB proposal draft with exceptions due to grading penalties. During the semester there are three opportunities to submit proposal drafts for feedback (see Course Calendar) prior to submission of the final, completed proposal. I encourage submissions on the dates identified. Normally comments and recommendations for improvement will be provided for drafts of the proposal, and grades will be assigned to the completed proposal.

If a completed proposal is not submitted by the last day of the semester for this course, the final course grade will be based upon the last version of the proposal submitted.

The IRB proposal will not be graded, however, a final course grade will not be assigned until an IRB draft proposal is submitted.

The most common mistakes found in proposals are listed below. Following each is the corresponding reduction in course grade. (Note: PS = problem statement or purpose statement; RQ/HY = research questions and hypotheses; LR = literature review.)

- plagiarism (minimum of two letter grades [20 points] and a grade no higher than C will result)
- omission of required sections (e.g., PS, RQ/HY, participants, etc.) (letter grade; 10 points)
- lack of correlation between HY/RQ and methods selected (letter grade; 10 points)
- many instances of grammatical mistakes (letter grade; 10 points)
- several (three to six) distinct grammatical mistakes (1/2 letter grade; 5 points)
- poorly written or structured passages; lack of flow in paper (letter grade; 10 points)
- lack of correlation between the PS and HY/RQ (2/3 letter grade; 7 points)
- lack of correlation between LR and HY/RQ (2/3 letter grade; 7 points)
- lack of correlation between PS and LR (1/2 letter grade; 5 points)
- failing to specify how variables in RQ/HY will be measured (letter grade; 10 points)
- three or more different APA errors (1/2 letter grade; 5 points)
- lack of correspondence between citations and reference list (1/3 letter grade; 3 points)
- other problems that arise as I read the paper

The above list is not exhaustive. Frequently proposals present unique problems that must be addressed individually. I will attempt to assess the severity of the problem in accordance with similar mistakes listed above when deciding the value to assign to the problem.

Many of the factors that reduce grades listed above can be easily avoided, such as plagiarism, APA errors, failing to present all required sections, and lack of correlation between citations and reference list. If you are unclear about any of these factors please contact me. I generally highlight these problems (except for plagiarism) while reading the proposal drafts. With this information, most students find it easy to correct identified problems.

Finally, note that each draft normally takes me between 45 minutes to 1.5 hours to read and write comments. Each proposal is time intensive because of the thought required when considering each research situation. The most time consuming task, however, is addressing poor writing. Because reading proposals is time intensive, I try to provide comments that will make each research project successful, and each draft read well. It is for these reasons that I make substantial comments on drafts submitted by many students. Sometimes students ignore substantive changes outlined in my comments. If I provide comments and notes for changes to one's draft, those changes are to be implemented by the next draft. If comments are ignored or disregarded in a subsequent draft, I will assume that student has made all changes that he or she intends to make, so I will therefore assign the final course grade to the latest draft. To be clear, consider this example. If I provide notes for changes on draft 1 for a given student, and if in draft 2 those changes are not implemented, then I will read no additional proposal drafts from that student and the course grade will be based upon draft 2.

(b) Tardy Proposal and Course Extensions

There will be no extensions in this course except in rare cases of hardship that prevents one from completing the course in a timely manner. If I have received no proposal, an "F" will be assigned unless an extension is made. For those who do receive an extension, you will be allowed to submit only one proposal and your course grade will be based upon that submission (also note that there will be no opportunity to receive comments for revisions or to make revisions). In addition, a *penalty of a reduced letter grade* will be imposed on all proposals submitted after the end of the semester.

Tardy proposals will be read at my convenience and not during holiday, vacation, or summer breaks.

(c) Plagiarism

I have found that few students can identify plagiarism—in fact, several semesters ago nearly every student in my section of this course plagiarized. To avoid plagiarism, please read the following source so you can better identify plagiarism in your own writing:

<http://plagiarism.org>

Realize that the official GSU position on plagiarism is expulsion from the university so be careful. If I find that you plagiarized (e.g., misquoted, no credit given for idea, etc.), either accidentally or deliberately, the best possible grade you will receive for the course will be C. I will not seek to identify incidents of plagiarism while reading the drafts. I may, however, spot check each completed proposal for plagiarism. To do this, I may require that you provide copies of two or three cited sources in your paper.

(d) Student Readers

Each student is encouraged to select a partner in class (or find a friend to assist you) to read and provide feedback on proposals. Use this feedback to revise your proposal. You, as the reader of your partner's proposal, should focus on the following:

- grammar
- writing style (highlight poorly worded sections, redundancies, unclear passages, etc.)
- APA format (indicate where partner's paper deviates from APA style)
- logic, detail, and clarity of the Method and Analysis sections

10. Withdrawal

The university sets a specific date in which you may withdraw from a course without an academic penalty. To withdraw after the withdraw date, contact the registrar's office to learn which form is needed (it may be called "petition to withdraw" or something similar). Complete that form and submit to me so I may sign and forward to my departmental chair. Petitioning to withdraw after the withdraw date does not guarantee a withdraw passing (WP) grade since my department chair and the COE dean must also approve the petition. All petitions to withdraw must be submitted before the last day of regularly scheduled classes during the semester; petitions to withdraw cannot be submitted during or after final examination week.

11. Content Delivery

This course is administered on-line. Communication for this course will be executed via Folio mail and discussion board. Live chats on Folio are possible if such a chat is requested. In addition, face-to-face meetings are possible if requested.

As noted above proposal submission is via Folio mail as a PDF attachment.

12. Course Requirements

You will be required to submit one completed research proposal for the course, and one draft IRB proposal. The completed proposal is due at the end of the semester, but you are encouraged to submit drafts of the proposal on the dates listed in the course calendar. If drafts are submitted I will read them and provide comments for improvement. The final course grade will be derived solely from the completed proposal minus any grading penalties.

My focus with drafts will be upon identifying major flaws in the proposal (e.g., weak literature review [LR], lack of correspondence between problem statement [PS] and research questions [RQ] or hypotheses [HY], inappropriate research design, etc.). I hope not to make extensive editorial comments on grammar, writing style, etc. I will, however, highlight sections that need revision due to poor wording, grammar, and logic. It is your responsibility to ensure a well written, completed proposal is submitted at the end of the course.

The required submission format for proposals is as a PDF file sent in Folio. Hard copies of proposals are also accepted and these must be on white paper, typed or computer printed, and fastened with a staple in upper left-hand corner. The proposal must follow APA style.

Use quotations sparingly. No more than two short quotations will be accepted in your proposal. If more than two are used, your proposal will not be graded until revised. I have adopted this rule to prevent students from relying upon quotations to form the body of their proposal; such reliance is poor form and does not demonstrate your writing ability.

13. Proposal Format in Brief

- a. Title Page—title, name, mailing address
- b. Introduction—no more than 1.5 pages, contains purpose statement, builds case/importance of study
- c. Literature Review—between 3.5 and 4.5 pages in length; provide sufficient detail to build logic for research questions or hypotheses
- d. Summary—no more than 1 page, summarize research from review, build transition to present research questions or hypotheses
- e. Method—no specific length required
- f. Participants—who and in what context, how many, how selected
- g. Instruments or Materials—discuss materials, interview questions, or instruments used to collect data
- h. Procedure—step-by-step discussion of execution of study (include discussion of Design if experimental study used)
- i. Analysis—no specific length required, summarizes data analysis plans to address research questions or hypotheses posed earlier
- j. Limitations—no specific length required, list possible limitations to study (any factors that can influence interpretation of results)
- k. Appendices—copies of instruments, letters, etc.
- l. References—citations used in proposal

14. Proposal Format in Detail

(a) Introduction

Purpose of Study, purpose statement (PS; in future tense, except perhaps for introductory paragraphs) -- this section does not have a header

- this section will be a few paragraphs but no more than 1.5 pages
- a brief introductory section (typically several paragraphs) that familiarizes readers with the topic of the paper (this section helps provide either the theoretical or practical significance of the study);
- ***include citations to document claims made*** (failure to do this is a common mistake)
- a purpose statement (future tense), in a few sentences, which makes clear the primary purpose of this proposed study
- immediately following the PS should be a paragraph that explains who will benefit from this study and how this study differs from other studies
- characteristics of PS
 - significance is apparent (practical or theoretical)
 - is researchable (can actually collect and analyze data to answer question posed)
 - primary variables mentioned and their relationship specified

Brief Example:

Speculation among educators and educational researchers holds that increases in academic standards may have detrimental effects on students, especially academic at-risk students (Johnson, 1994; Jones, 1993). With state mandates requiring increased standards, such as the adoption of minimum competency tests, educational researchers have argued that high school dropout rates will increase substantially once students begin experiencing difficulty passing competency tests (Adam, 1983). The purpose of this study is to investigate whether increased standards, in the form of minimum competency tests, appear to influence students' decisions to leave school before graduation. If increased academic standards do, in fact, demonstrate a statistical association with students' decisions to drop out of school, then policy makers should carefully consider the ramifications of both the goals for, and implementation of, such standards.

(b) Literature Review

The LR (past tense in most situations, see APA) has a header that is centered, e.g., "Literature Review" or some title more relevant to your review. Characteristics of LR include:

- relevant references, nothing superfluous included in LR
- written in big V format (from general to specific), if possible
- primary and empirical sources cited (see comments above)
- up-to-date (while older references are often necessary, you must provide evidence that you have checked recent research on your topic)

Students often ask about length of LR; the LR should be succinct and well written with sufficient detail, and be between 3.5 and 4.5 pages in length (I may request more so LR may be longer at my request). The LR should have at least 15 references that relate directly to your research problem. You must show evidence that you have read the literature relating to your research questions, and most (50%+) of the references you cite must be from primary, empirical sources. Often one can find empirical research reported in journals such as the American Educational Research Journal, Journal of Experimental Psychology, Journal of Educational Psychology, Educational Evaluation and Policy Analysis, Contemporary Educational Psychology, or other journals relevant to your content area. If you are unsure whether a particular article is based upon primary, empirical evidence, ask me. Note that not all articles appearing in the journals listed above (or similar journals) are empirically based. You can identify whether a publication is empirically based research by the presence of "Method" and "Results" sections.

Finally, the LR should indicate how your research queries were devised based upon what others have found in their research. Remember that the LR is a story that clearly shows how your research queries (a) are related to previous research and (b) were derived. If it does not accomplish this goal, the paper will require revision.

(c) Summary and Research Questions/Hypotheses

This section will likely be in future tense, have a header that is left justified, e.g., "Summary and Research Questions," and contain the following characteristics:

- summary serves as a transitory statement or paragraph between LR and RQ/HY.
- characteristics of RQ and HY
 - reasonable explanations or expectations
 - testable, researchable
 - clear and concise
 - consistent with prior research, unless theory dictates otherwise

Brief Example (this example paragraph would follow the LR):

As noted above, both educators and educational researchers think that minimum competency testing will result in more students dropping out of school. In addition, academically at-risk students and racial minority students are expected to be especially affected by poor performances on competency tests. To empirically examine these issues, data will be collected and analyzed in this study to address the following questions regarding the relationship between competency test performance and dropping out of high school: (a) Do students who fail the minimum competency test show an increased likelihood of dropping out of school? (b) Are students with lower achievement records more likely to leave school if they fail the competency test than students with average and above average achievement records? (c) Does the association between competency test performance and dropout status differ for Black, Hispanic, and White students?

After stating the RQ or HY indicate in a few sentences or a paragraph how this study differs from previous research on the topic—how your study makes a contribution.

Example:

This study, unlike other published work on increased standards, will provide an empirical analysis of the relationship between test performance and dropping out of high school. In addition, this study extends research by specifically examining testing performance for academically at-risk students and racial minority students and their decisions to leave school.

Note: Students have frequently included in their proposals sentences or phrases from the above examples directly. This, of course, is plagiarism. Do not use the phrasing given above.

(d) Method

(Note: If you plan to use qualitative research techniques, the outline given below may not be best for you. Please contact me so we can determine together the best presentation for your proposed research.)

This section has header, centered, called simply "Method." Note that the order of the subsections under Method may be changed to facilitate presentation of information. For example, it may be easier to first present the procedure and then present the materials. The participants section, however, should always be presented first.

(1) Participants

- Use this header ("Participants"), left justified
- describe participants (number participating, age sex, race and other important characteristics)
- describe the general setting from which participants selected (e.g., rural, Title-1 school located in south Georgia within a predominately poor economic neighborhood that has failed to achieve AYP status for the past two years and has also experienced high faculty attrition)
- explain how participants will be selected; and
- explain how you will obtain approval to work with this group. This last point is critical; you want to have clear permission so you are not denied access to participants once your study begins.

(2) Materials

- Use this header or something similar (Materials, Instruments, Measures), left justified
- Provide a detailed description of tests, instruments, apparatuses, etc. For example, on tests, indicate the number of items, difficulty of items, cognitive level of items (e.g., recall, comprehension, analysis, etc.), and how the test is scored and interpreted (e.g., higher scores indicate higher levels of achievement, etc.).
- Indicate who developed or adapted the instruments, materials, textbooks, readers, etc. and be sure to include citations and references to these instruments, materials.
- Discuss validity and reliability where appropriate (content, construct, alpha, split-half, face validity, etc.). Helpful books for locating the validity and reliability of professionally developed instruments include: *The Mental Measurements Yearbook*, *Tests in Print*, *Tests: A Comprehensive References for Assessments in Psychology, Education, and Business*. If you developed the instrument, explain what steps you took to develop it (e.g., searched literature for appropriate items, interviewed knowledgeable individuals, wrote instrument, had experts critique it, pilot tested it in the field with small sample, made further revisions, then field tested it again). It is important that all student-developed questionnaires/interview questions be field tested during this course. Report of results of field test and revisions as a result of field test in this section of the proposal.
- Explain how these tests or instruments measure the variables you are interested in investigating.

(3) Design

Use this header (if needed), left justified, however it is better to incorporate this information into Procedures section below rather than have a short, detached Design section.

- This section is needed only for experimental studies, typically.
- Name the precise design used as named by Campbell and Stanley (pretest-posttest control group, nonequivalent control group, counterbalanced, etc.), and include citation to reference the design named;
- explain how subjects were assigned to treatment conditions (random assignment of subjects to treatments, random assignment of classes to treatments, etc.); and
- explain here, if possible, whether the groups are equivalent (same sex and race distributions, same pretest scores, etc.), and do this by providing statistical analyses of pretest measures (e.g., t-tests) or demographic factors (e.g., chi-square test) to show that groups are equivalent.

(4) Procedure

Use this header (“Procedures”), left justified.

In this section you indicate, in detail, each and every step required in collecting the data from beginning to end (how and when instruments were administered; how, when, and how long treatments were administered; steps you used to ensure high return rate of surveys; how treatment and control groups will be similar and different--how treatment differs from control condition; etc.). This section is very important since it outlines precisely how the study will be conducted using materials and participants described above. Your goal in this section is to provide enough detail to enable someone unfamiliar with your study to replicate it.

(e) Analysis

This is a new section and not part of the Method section. Use this header (“Analysis”), left justified

In this section indicate how each and every research question or hypothesis will be analyzed or evaluated. For example, if you hypothesize that treatment A will increase achievement, and you used a posttest-only control group design with two groups (treatment A and the control group), then you will use a two-group t-test to determine whether a statistical difference exists between the two groups in terms of achievement. Also indicate that you will provide descriptive statistics or other summary measures, if appropriate. As another example, if you plan to analyze responses to open-ended questions or interviews, explain that you will use content analysis or thematic analysis to identify common themes among responses and explain how this information will be presented in the report.

(f) Limitations of Study (Note: Limitations will be moved to Discussion section once study is completed)

Use this header (“Limitations”), including the parenthetical note, left justified

Discuss any potential threats to either internal or external validity in the study. That is, which factors exist that might affect the control (internal validity) or generalizability (external validity) of the study. If, for example, you used some type of quasi-experimental design, then indicate how you tested groups to ensure equivalence, and which factors may still exist that prohibit causal inferences (e.g., lack of initial equivalence between groups).

(g) Appendix

Use this header, if needed, centered.

Include in the appendix:

- Surveys, Scales, Instruments—include copies of surveys, instruments, and tests you plan to use for collecting data.
- Cover letters for surveys, requests to use certain participants, materials, etc.
- Copy of your IRB application (see below in section 12)

For more information on method, cover letters, survey or questionnaire development, experimental design names, etc., see recommended textbooks.

(h) References

Use this header centered. Provide a reference list.

15. Sample Proposals

Two sample proposals can be found below. Note these sample proposal do not follow the required format specified above, but do provide an idea of content.

Sample Proposal 1: http://www.bwgriffin.com/gsu/courses/edur8434/sample_1.htm

Sample Proposal 2: http://www.bwgriffin.com/gsu/courses/edur8434/sample_2.htm

16. Institutional Review Board (IRB) Draft Proposal

(a) What and When

GSU requires that researchers working with human subjects submit research procedures and forms to the IRB for approval prior to executing one's study. Note that you will NOT submit an IRB application during the semester of EDUR 8434. If an IRB application is needed for your study, you will instead submit the IRB application under the guidance of your XXXX 8839 instructor or adviser. That will occur after you complete EDUR 8434. However, you will begin developing the IRB application while enrolled in EDUR 8434. In this course, two components of the IRB application will be developed, the narrative description of your research and the CITI training certificate.

(b) Narrative

The IRB application proposal narrative contains a brief description of the researcher's plan for executing the study. The "Proposal Narrative" form can be found at the link below:

<http://research.georgiasouthern.edu/researchintegrity/institutional-review-board-forms/>

Address each component of the narrative succinctly (note, don't copy the work you present in this class, instead summarize it, although do retain enough details to enable IRB reviewers to understand clearly your procedures), then submit with your 3rd and final draft of your research proposal.

To complete the IRB application, you must complete other forms, such as the cover sheet, informed consent, etc. Each can be found at the link provided above as well.

(c) CITI Training

Also, all IRB applicants must complete CITI training and receive a certificate before IRB will approve your research.

<http://research.georgiasouthern.edu/researchintegrity/institutional-review-board-forms/>

Complete this training and submit your certificate with your final draft. This can be tedious, but is required by the IRB

(d) IRB

If you want to know more about the IRB at GSU, the link can be found here:

<http://research.georgiasouthern.edu/researchintegrity/>

(e) Sample EdS IRB Applications

You can find sample IRB applications submitted by EdS students at the following link:

http://www.bwgriffin.com/gsu/researchsupport/irb_samples.htm

17. Topic Approval Form

EDUR 8434 is designed to help you develop a study that is researchable, but being researchable does not ensure you have an appropriate topic for study. The Topic Approval Form, found at the linked below,

<http://coe.georgiasouthern.edu/students/actionresearch-fall2016/>

was designed to ensure that each student communicated their research idea with a faculty member in the student's content area of study. This is important because the research you plan should align with your content area.

This form must be completed and signed prior to registration in EDUR 8434; submit this form to me in Folio.

18. How This Course Supports the College's Conceptual Framework

The College of Education's conceptual framework advances the theme of reflective educators for diverse learners. This includes, for example, commitments to technology and to knowledge and dispositions of the profession. In this course information will be learned that should make each student educator a more knowledgeable and critical consumer of educational research, thus enabling educators to evaluate better current and recommended practices when analyzed empirically. In addition, the statistical and data analytic skills presented in this course will enable student educators to become producers of educational research and this will enable educators to employ empirical means to study their own classroom and school practices through action research.