EDUA 5800
INTRODUCTION TO EDUCATIONAL RESEARCH

Syllabus

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COURSE DESCRIPTION

EDUA 5800 (3): Introduction to Educational Research. A study of scientific inquiry in the field of education. Research and statistical methods are surveyed within the context of educational research. Particularly recommended for students interested in the evaluation and application of research findings. Not to be held with EDUA 5801 or the former 043.503.

Because the scope of the course is quite broad, it will not be possible to cover all of the research methods in current use. Nevertheless, by the end of the course, you should have a good awareness of the more commonly used procedures (both quantitative and qualitative) that may be applied to different types of research studies and the guidelines that should be used in selecting appropriate research methods. Thus, you should be better able to plan and carry out your own research and evaluate the research conducted by others.

The intent of this course is to provide you with a realistic exposure to various aspects of conducting and evaluating educational research. There are no exams in this course. The assignments are designed to give students a "hands-on" opportunity to do many of the same things that researchers actually do. This includes aspects of research such as evaluating articles, writing, collecting data, analyzing data, and interpreting results. Also, because much of the educational research is collaborative (i.e., with two or more authors), there will be some opportunities to collaborate with others in the class on assignments.

COURSE GOALS

Upon completion of this course, you should be able to:

- describe the nature of disciplined inquiry in education;
- assess the ethical dimensions of a research project;
- evaluate the different sections of a research paper;
- distinguish between research done well and research done poorly;
- identify various ways that research can take place in educational settings;
- develop various components related to the research process; and
- analyze both qualitative and quantitative data.

COURSE MATERIALS

REQUIRED MATERIALS

Bookstore
The following required materials are available for purchase from the University of Manitoba Bookstore. Please order your materials immediately, if you have not already done so. See your Distance and Online Education Student Handbook for instructions on how to order your materials.

Textbook
Textbook Companion Website
There is a free companion website for the textbook that you may access for this course at: http://pearsonmylabandmastering.com/. You will be directed to the appropriate areas on the website as you work through the course materials.

The companion website is divided into chapters that are aligned with the chapters of the textbook. Chapters contain a quiz (self assessment), activities designed to help you build your research skills (building research skills), resources, and links to other useful sites (web destinations) check each of these on the text website.

Optional materials

### COURSE OVERVIEW

<table>
<thead>
<tr>
<th>Week</th>
<th>Unit</th>
<th>Topic</th>
<th>Assignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1</td>
<td>1</td>
<td>Introduction to the Course</td>
<td></td>
</tr>
<tr>
<td>Week 2</td>
<td>2</td>
<td>Introduction to Research in Education - Chapter 1</td>
<td></td>
</tr>
</tbody>
</table>
| Week 3 | 3 | Research Problems, Variables, and Hypotheses - Chapter 2  
Locating and Reviewing Related Literature - Chapter 3 | |
| Week 4 | 4 | Participants, Subjects, and Sampling - Chapter 4 | Assignment 1 due:  
Critique of popular media article |
| Week 5 | 5 | Foundations of Educational Measurement: Reliability and Validity - Chapter 5 | |
| Week 6 | 6 | Ethical Issues in Research - Wiseman chapter | Assignment 2 due:  
Method Section |
| Week 7 | 7 | Types of Educational Measures - Chapter 6 | |
| Week 8 | 8 | Nonexperimental Quantitative Research Designs - Chapter 7 | Assignment 3 due:  
Ethical Issues |
| Week 9 | 9 | Experimental and Single-Subject Research Designs - Chapter 8 | |
| Week 10 | 10 | Understanding Statistical Inferences - Chapter 9 | |
| Week 11 | 11 | Qualitative Research Designs - Chapter 10 | Assignment 4 due:  
Interpreting Quantitative Research |
| Week 12 | 12 | Qualitative Research Designs - Chapter 10 | |
EVALUATION AND GRADING

The major course requirements (and weights) are as follows:

1. **Class assignments 70%**

There will be 5 assignments with each assignment given every 2-3 weeks (see lesson schedule). Some of these assignments will be done individually, while others will be completed in groups. Each assignment will be given equal weight (i.e., \( \frac{70}{5} = 14\% \) each).

<table>
<thead>
<tr>
<th>Assignment 1</th>
<th>Group</th>
<th>Critique two short popular media articles that refer to educational research.</th>
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<tbody>
<tr>
<td>Assignment 2</td>
<td>Individual</td>
<td>Write a method section for a short experiment.</td>
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<tr>
<td>Assignment 3</td>
<td>Group</td>
<td>Analyze ethical issues pertaining to an in-class experiment.</td>
</tr>
<tr>
<td>Assignment 4</td>
<td>Individual</td>
<td>Interpret results from quantitative analyses in a published article and recommend a further study.</td>
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<tr>
<td>Assignment 5</td>
<td>Group</td>
<td>Collect and analyze qualitative data, formulate research questions, draw supported conclusions.</td>
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2. **Final critique 30%**

You will be given two short articles (one quantitative and one qualitative) to critique thoroughly (i.e., the entire articles). I will provide the criteria to critique each article.

Given that we will cover a significant amount of material each week, submitting assignments, and especially the final critique on time is crucial. See the instructor letter for the late submission policy.

**GENERAL COMMENTS**

Below are some general comments on how this course will run. If you require any modification to insure your full participation in this course, please contact your instructor as soon as possible. Also, given that the material in this course is covered at a fairly rapid rate, it is imperative that you keep up with the weekly readings and assignments. Falling behind, even by one week, can make the process of keeping up with the material and completing the assignment(s) much more difficult, especially when group members are depending on one another.

Letter grades will be assigned according to the Faculty of Education grading conversion scheme:

<table>
<thead>
<tr>
<th>Letter grade</th>
<th>Grade point</th>
<th>Level of achievement</th>
<th>Percentage range</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>4.5</td>
<td>WOW!!</td>
<td>95+</td>
</tr>
<tr>
<td>A</td>
<td>4</td>
<td>Excellent</td>
<td>90-94</td>
</tr>
</tbody>
</table>
### Note:
All final grades are subject to departmental review.

#### PLAGIARISM, CHEATING, AND EXAMINATION IMPERSONATION

You should acquaint yourself with the University's policy on plagiarism, cheating, and examination impersonation as detailed in the General Academic Regulations and Policy section of the University of Manitoba Undergraduate Calendar. Note: These policies are also located in your Distance and Online Education Student Handbook or you may refer to Student Affairs at [http://www.umanitoba.ca/student](http://www.umanitoba.ca/student).

In addition to what is published in the University's policy the following will also be considered plagiarism:

- information used without appropriate referencing from any abstracts (whether directly quoted or paraphrased). (Did you know that someone actually writes abstracts?)
- any writing done for another course and used, without explicit permission of both course instructors, in this course. It is plagiarism to use your own writing in two different courses without permission. This includes any work being used for the thesis or final project.
- any material picked up from any internet or world wide web site (whether paraphrased, quoted, or used as information) without appropriate referencing.
- it is accepted that picking up six words or more directly from a source without the appropriate referencing (quotation marks when a direct quote is used, APA citation when a paraphrase is used) constitutes plagiarism (even if the verb tense is changed, or other slight changes are made).

Any plagiarism or academic dishonesty found to take place in the assignments in the course will result in the student automatically receiving the grade of F in the course. The behaviour will also be reported directly to the Faculty of Graduate Studies for any further action.

#### DISTANCE AND ONLINE EDUCATION (DE) STUDENT RESOURCES

In your course website there are links for the following:

- Contact Distance and Online Education Staff
- Distance and Online Student Handbook
- Distance and Online Education Website

#### ACKNOWLEDGEMENTS

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Dr. Renaud obtained his Ph.D. in Psychology with specialization in education and quantitative methods from the University of Western Ontario in 2002. In addition to having taught research methods for many years in the Faculty of Education, he also teaches educational psychology, program evaluation, and measurement and evaluation in schools. His main research interests are within program evaluation, student assessment, and quantitative methods.

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