

# BCN 6036

## Research Methods

**Meeting Time: Tuesdays (2,3) Thursdays (2)**

**Section No. 6829**

**Meeting Place: RNK 220**

Dr. R Edward Minchin Jr., P.E., Associate Prof.  
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e-mail:

Office Hours: T, R- 3:30 - 5:00 pm

Office Hours:

Dr. Minchin and Lourdes will make every effort to be available in their office during office hours. Students are encouraged to see Dr. Minchin or Lourdes any time that they are in their office. It is probably wise to call or e-mail them to make sure that they are, or can be in their office for the meeting. However, “drop –ins” are welcome.

**CATALOG DESCRIPTION** – To familiarize the student with the research proposal development process and the statistical, computational, visualization and presentation tools available to the researcher. For the first half of the term, the course will run parallel to the organization of a research proposal.

**COURSE OBJECTIVES** – Students who complete this course will have an in depth understanding of the Scientific Method and they will be able to apply the scientific method in identifying problems and coming up with solutions to those problems.

**PREREQUISITES** – Graduate Standing or Instructor Permission

### **TEXT (Recommended):**

1. *Dissertation Research and Writing for Construction Students*, S.G Naoum, Butterworth-Heinemann, Boston, Mass, 1998.
2. *Research Methods for Construction*, Richard Fellows and Anita Lu, Blackwell Scientific, Malden, Mass., 1997.
3. *Survey Research Methods*, Earl. R.Babbie, Wadsworth, Belmont, CA, 1973
4. *Case Study Research Design and Methods*, 2<sup>nd</sup> Ed., Yin, R.K., Sage Publications, Beverly Hills, CA, 1984

### **REFERENCES** –

1. *Statistics in Research: Basic Concepts and Techniques for Research Workers*, Bernard Ostle, Linda C Malone, 4<sup>th</sup> Ed., Iowa State Press, Ames, IA, 1988
2. *The Chicago Manual of Style*, 14th ed. Chicago: Univ. of Chicago Press, Chicago, IL, 1993

3. *The conduct of Inquiry*, Abraham Kaplan, Chandler Pub., Scranton, PA, 1964
4. *Inquiry by Design*, John Zeisel, Brooks/Cole, Monterey, CA, 1981
5. *Research Design: Qualitative and Quantitative Approaches*, John W Creswel, Sage Publications, Thousand Oaks, CA, 1994
6. *The Good Research Guide: For small-scale social research projects*, M. Denscombe, Open University Press, Philadelphia, PA, 1998
7. *Qualitative Data Analysis: An Expanded Sourcebook, 2<sup>nd</sup> Ed.*, Matthew B. Miles and Michael Huberman, Sage Publications, Thousand Oaks, CA, 1994

**HELPFUL SOFTWARE**

**1. EndNote**

A bibliographic reference software program, It is an excellent way to keep track of references used for writing papers. It is a database that works with WordPerfect, Word or WordPro seamlessly. It has search capability using keywords. It can link to the web within the program for connecting to web references.

**ASSIGNMENTS**- There will be several homework assignments to make to make sure basic fundamental concepts are understood before proceeding, and to assist the thesis student in beginning thesis process. Check below for policy on late assignments. **Assignment grades will account for 25% of the final term grade.**

**DEGREE AUDIT** – This may be completed any time during the term. **No grade will be assigned to this assignment, but failure to complete the assignment by the date of the last examination will result in an “I” grade for the course.** Please see Dottie for the degree audit.

**QUIZZES** – There will be quizzes on reading assignments and lectures during the course term. Reading assignments may be in the form of manuals, research papers or articles of interest. There will be a quiz in nearly every class. The content of the student presentations will be part of any quizzes administered during those parts of the semester. **Quiz grades will be averaged and will account for 17% of the final term grade.**

**CLASS PARTICIPATION** – The instructor will easily be able to gauge each student’s participation level. **Class participation is NOT class attendance.** Students are **strongly** encouraged to ask questions, make comments and otherwise add to the learning experience for themselves and others. A significant portion of the class will simply be a discussion of academic papers, principles and procedures published on this subject. It is vital that all students participate in the discussions. **Class participation will account for 5% of the final term grade.**

**PRESENTATION** – Each student will make a presentation to the class, Dr. Minchin and probably a guest panelist. The presentations should last 6-8 minutes, with 2-4 minutes for questions.

The presentation should be in PowerPoint and photos and figures would be appreciated, along with any other audio/visual aids. Dress for the presentation should be professional, but not necessarily formal. The presentation will be graded on the following:

- Organization, Clarity and Neatness (Outline, Methodology, Approach)
- Confidence

- Stay on Topic. Don't ramble in your speech
- Use of visual aids
- Technical Content
- Personal Appearance: You should dress as if making a presentation in a professional environment.
- Enthusiasm/ Interest
- Timing: It is really important to hit that 6-8 minute window.
- Summary : The summary itself, as part of the presentation is important. How questions are answered is also important.

**Submit:**

- One file containing an electronic version of the presentation PowerPoint. The file must be e-mailed to Dr. Minchin **by class time on the date of the presentation.**

**The presentation will count as 15% of the final grade.**

**TESTS** – There will be three tests during the course. The third exam will be comprehensive. The content of the student presentations will be a part of the third exam. **The third exam will be worth 16% of the final grade and the first two exams will each be worth 11% of the final grade.**

**GRADING POLICY** – The following grading scale will be followed:

A.... 93.00 - 100.00	B-.... 80.00 - 82.99	D+.... 67.00 – 69.99
A-.... 90.00-92.99	C+....77.00 - 79.99	D.... 63.00 – 66.99
B+.... 87.00 – 89.99	C.... 73.00 – 76.99	D-.... 60.00 – 62.99
B.... 83.00 – 86.99	C-.... 70.00 – 72.99	E.... 00.00- 59.99

**TEXT** - Selected Readings

**ASSISTANCE** – Dr. Minchin will be available to provide any assistance outside of the classroom that you may require. Come see him any time you have a question- my schedule is flexible. If it is imperative that you see him and you want to insure that he will be available please set up an appointment. Otherwise, see him any time he am in his office. Lourdes, the TA, is a PhD student that took this course from Dr. Minchin in the Fall semester, 2011 and had the highest grade in the class. She will be of great help to the students. She is also available to provide any assistance outside of the classroom that you may require. Come see her any time you have a question- her schedule is flexible. Their posted office hours will be held any time that they are in town.

**GENERAL POLICIES** –

- In-class Assignments cannot be made up for unexcused absences
- Absences are considered excused **ONLY** if advance notice is given of the absence.
  - Phone
  - In-Person

- E-Mail
- Absences in this class are not anticipated
- There will be no substitutions for assignments
- Assignments turned in late will receive half credit if turned in by the end of class; no credit will be given for assignments turned in after this time.
- Starting with the third unexcused absence, three points will be deducted from the offending student's term average for each unexcused absence. Absences will be counted by how many quizzes a student misses.
- Writing assignments will be checked using Turnitin software to identify any instance of plagiarism. Any student found guilty of plagiarism will be assigned an "F" for the course. NO appeal. Please make sure you understand what this means and how to avoid it.
- Text messaging- Don't. Just don't
- Ipods- No. No earphones
- Laptops- If you must use laptops to take notes, you must see me to make such arrangements. If there are days that you will need laptops, you will be notified of such in advance.

### **COLLEGE OF DESIGN CONSTRUCTION AND PLANNING SPRAY PAINTING POLICY**

Spray painting, or the use of any other sort of aerosol spray, is not allowed in the Architecture Building, Rinker Hall and Fine Arts C, except within the spray booth found in Room 211 Fine Arts C. Students found in violation of this policy will be referred to the Dean of Students for disciplinary action.

**Note:** Some adjustments in the Class schedule will be made to accommodate guest lecturers and unforeseen events and occurrences.

### **TENTATIVE COURSE SCHEDULE**

	<b>DATE</b>	<b>TOPIC</b>
	8/23	Introduction  <b>Choosing your Research and Advisor</b>  Photos  <i>Assignment A-Personal Information Sheet</i>  <i>Assignment S- The Scientific Method</i>
	8/28	<b>Defining a Research Topic</b>  <i>Assignment #1-Research Statement</i>  <b>Literature Search</b> <i>Assignment S-1, The Scientific Method- DUE</i>
	8/30	<b>Statistics- Scientific Method (Student Presentations)</b>

	9/04	<i>Assignment # 2-Literature Search</i> <b>(Thesis or Report) Introduction</b> <b>Results, Conclusions, Recommendations, References</b>
	9/06	<i>Assignment#1-Research Statement – DUE</i> <b>Statistics</b>
	9/11	<i>Assignment # 3- Introduction</i> <b>Data Collection/ Research Methodology</b>
	9/13	<i>Assignment#4- Research Methodology</i> <b>Statistics</b>
	9/18	<b>Exam I</b>
	9/20	<b>“ Identification and Demonstration of a Technology Adaptable to Locating Water in Post-Tensioned Bridge Tendons”</b>
	9/25	<b>Institutional Review Board</b> <b>Using the Library Effectively</b>
	9/27	<b>Survey Development</b>
	10/02	<b>“ Quality Concerns from Low Cost Sourcing Countries</b>
	10/04	<b>Statistics-Data Processing for Qualified Data- Case Study: “Quality Concerns from Low Cost Sourcing Countries”- Dr. Russ Walters</b>
	10/09	<i>Assignment #2- Literature Search – DUE</i> <b>Thesis Requirements - Graduate School</b>
	10/11	<b>BCN Requirements - Dottie Beaupied</b> <i>Assignment B- Choose your Advisor-DUE</i> <b>Statistics</b>
	10/16	<b>No Class- Career Day</b>
	10/18	<i>Assignment #3 – Introduction -DUE</i> <b>Research Methods of BCN Faculty- Dr. Issa</b>

	10/23	<b>EXAM II</b>
	10/25	<b>No Class- Student Competition</b>
	10/30	<i>Assignment# 4- Research Methodology – DUE</i>
	11/02	<b>Research Methods of BCN Faculty- Dr. Kibert Statistics</b>
	11/07	<b>Research Methods of BCN Faculty- Dr. Ries</b>
	11/09	<b>Statistics</b>
	11/14	<b>Research Methods of BCN Faculty- Dr. Flood</b>
	11/16	<b>Statistics</b>
	11/21	<b>Presentations</b>
	11/23	<b>No Class- Thanksgiving</b>
	11/28	<b>Presentations</b>
	11/30	<b>Presentations</b>
	12/04	<b>EXAM III</b>