BSCI 7060
Research Methods in Building Science

Instructor: Scott Kramer, Ph.D.
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Office Hours: As posted and by appointment
Dissertation Research and Writing For Construction Students, Elsevier – Naoum, 1998
Doing Postgraduate Research, Sage Publications – Potter, 2002

Course Objectives:
- Understand the academic research process as it relates to Building Science and the Built Environment
- Be able to successfully perform a relevant literature review
- Formulate a research proposal on a chosen topic.
- Explain the principles of research within the context of a chosen topic.
- Justify the research design in a research proposal.
- Justify the research methodology in a research proposal.

Attendance: Class attendance is required. Make up exams/quizzes will be given for excused absences only. Absences will be excused in accordance with University Policy as stated in the Auburn Tiger Cab. Written documentation for excused absences will be presented to the instructor the first class period following the absence; otherwise, the absence is not excused. Job interviews, hunting & fishing trips, weddings, jury presentations, and concrete pours are not excused absences. Each unexcused absence will result in 3 percentage point reduction in the overall class grade.

Assignments: Assignments are due at the beginning of class on the due date. NO LATE ASSIGNMENTS WILL BE ACCEPTED. All student work shall be completed in accordance with the Student Academic Honesty Code as stated in the Auburn Tiger Cab. Any violation of the Student Academic Honesty Code will result, at a minimum, in the student receiving an F for the course grade.

Classroom Behavior: Professional behavior is expected during class. Behavior that disrupts the class is unacceptable and will not be tolerated. All cell phones and other electronic devices will be turned off during class. Also, students must log-off computer workstations before the beginning of class.

Special Needs: “Students who need accommodations are asked to arrange a meeting during office hours the first week of classes, or as soon as possible if accommodations are needed immediately. If you have a conflict with my office hours, an alternate time can be arranged. To set up this meeting, please contact me by E-mail. Bring a copy of your Accommodation Memo and an Instructor Verification Form to the meeting. If you do not have an Accommodation Memo but need accommodations, make an appointment with The Program for Students with Disabilities, 1244 Haley Center, 844-2096 (V/T).

Course Topics:
The Academic Research Process
Producing a Research Proposal
Initial Research and Literature Review
Approaches to Empirical Work: surveys, experiments, archival analysis, histories, and case studies
Hypotheses
Data Collection
Data Analysis
Reporting the Results

Evaluation:
Final course grades will be calculated using a 10-point scale. Grades will be calculated using the following breakdown.
- Homework / Quizzes 35%
- Midterm 30%
- Final Research Proposal 35%
- Final grade range: 100%
The study of “Research Methods” is commonplace in most graduate programs. The proposed course (or a variation of it) is taught in several construction graduate programs across the country. Graduate students in the Department of Building Science at Auburn University are engaged in many forms of research. Students are involved in various forms of research including simulation, modeling, conducting surveys, case studies, interviews, qualitative and quantitative analyses. This requires the student be trained in topics pertaining to research methodologies so that they may use that information in their capstone projects. All graduate students are required to complete a capstone project as part of their curriculum. The faculty expectation for the quality of these capstone projects has risen over the years. The aim of this course is to help the student formulate a scientifically sound methodology for the capstone project.