
COLLEGE OF ARCHITECTURE AND ENVIRONMENTAL DESIGN (<http://www.asu.edu/caed/>)
ARIZONA STATE UNIVERSITY (<http://www.asu.edu/asuweb/>)
SCHOOL OF DESIGN (<http://www.asu.edu/caed/design/designHome.html>)
500 RESEARCH METHODS
School of Architecture (<http://www.asu.edu/caed/architecture/home.html>)
500 RESEARCH METHODS IN ARCHITECTURE
FALL, 2002
Wednesdays: 8:40 a.m. - 11:30 a.m. (Section 1)
Fridays: 8:40 a.m. - 11:30 a.m. (Section 2)

Instructor:

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For appointments: Contact me after class or by email.

Course Description

Survey of research methods in architecture and design. Overview of development of research problems, literature reviews, instrumentation, data interpretation and presentation, and proposal development. Three credits.

Objectives

- Understand what research is.
- Understand the ways research may be conducted.
- Recognize research terminology and concepts.
- Develop research problems, instrumentation, and data analysis.
- Awareness of how to interpret research results and their implications.
- Awareness of how to prepare research proposals.

Overview

This course aims at developing an understanding of what research and scientific inquiry means in general, and what architectural and design research means in particular. Students should be able to formulate a research problem on a chosen topic; develop hypothesis, questions or objectives, be aware of research methodologies applicable to a given research problem; be aware of some of the different methods of data analysis; and different ways of synthesizing data and reaching conclusions. Students should strive to explore examples of both quantitative and qualitative research appropriate for thesis and applied project work. Accessing book and non-book resources in libraries, resources on the Internet, and other possible sources of information will be important attributes for each student to further develop. Students will be required to present their projects not only in written and graphic format, but also verbally with the aid of visual material such as PowerPoint™, html, and other appropriate forms of presentation. Assignments are discussed in further detail, below. Students are expected to attend every class session and participate in the discussions in class. *Quality writing and English language abilities are assets needed for graduate students to successfully complete the class.*

Course Materials

The course syllabus and schedule will be provided in hard copy form on the first day of class. Additionally, the course syllabus, schedule and assignments will be available by the second week of class on the following web site: <http://www.public.asu.edu/~kroel/www500/500HOME.htm>. The following additional materials will be required or used for the class:

- A series of research methods textbooks have been placed on reserve in the CAED Library. Additional copies, or different editions, of several of these books are also available in the ASU Library System. All books are on two-hour reserve. Reading assignments from these, and other, sources are defined in the class schedule.
- Student research and presentation of selected literature throughout the course. The CAED library web page is: <http://www.asu.edu/caed/AEDlibrary/>. The ASU Main library is: <http://www.asu.edu/lib/>.
- Handouts and other materials from the instructor. The CAED Library is scheduling orientation sessions and tours. Please coordinate your schedules as a group and arrange a tour with the library -- See library staff for schedule of available times for tours. The CAED Librarian, Deborah Koshinsky, will spend time with the class during week two of the semester.
- Reference texts for use throughout the master's program during development of thesis/project:
 - Madsen, David. **Successful dissertations and theses: a guide to graduate student research from proposal to completion**, 2nd edition, San Francisco: Jossey-Bass Publishers, 1992. (<http://www.josseybass.com/>).
 - Creswell, J. W. (2003). **Research design: qualitative, quantitative and mixed methods approaches**. (Second ed.). Thousand Oaks: Sage Publications. (<http://www.sagepub.com/>). Note: this is a new edition of this text with more comprehensive coverage than the 1st edition. Do not purchase the 1st edition!
 - Arizona State University Graduate College format manual, latest edition. Available in the Graduate College office on campus. Further information about the Graduate College is available at the following web address: <http://www.asu.edu/graduate/>.

A Comment: the two texts are good reference sources and guidelines for your use. I expect you to read and comprehend them on your own as supportive reading for the class. Some chapters from each of the sources are defined in the Syllabus, below. It might be good to "speed read" the books during the first week of class -- this will establish a good intellectual foundation for you!!!

Another text that is new is an excellent source and will be on reserve for the class as soon as the library receives it:

Groat, Linda & David Wang. **Architectural research methods**. New York: John Wiley & Sons, Inc. 2002.

Finally, an older text that is out of print is an excellent reference source for environmental behavior and qualitative research:

Michelson, W. M. (1975). *Behavioral research methods in environmental design*. Stroudsburg, Pa., New York: Dowden Hutchinson & Ross; distributed by Halsted Press.

Expectations/Assumptions

- *This is a survey course on traditional research methods that will serve as a foundation for your later work on a thesis or applied project.* Both thesis and applied project approaches usually require research to achieve your objectives and should be based upon sound methodological principles -- principles gained from this course and from other courses in the School and the University.

- This class will be presented in a discussion and collaborative format. The instructor will summarize key points regarding topics of discussion in some sessions. *Students will be expected to be active participants during all sessions. Students also will take class leadership in some sessions, as noted on the class schedule.*
- Assignments will be related to each discussion topic and to a "mini" research or applied project proposal that will help you develop the skills needed to develop your own thesis or applied project in future courses.
- All mini-assignments are *due the week following their assignment* unless otherwise noted on the syllabus. Students will present assignment results after our discussion of the topic for the day!
- You will be asked to work in small teams to develop research instruments, analysis methods, and other phases of research that may be used in the thesis/project. These team assignments are part of the mini-assignments, noted above.
- Required readings should be reviewed before the date of discussion. The instructor or students will overview key information about the reading of the week but will not critically present it in detail since time will be limited! All students are expected to participate in discussions.
- I would like each person to read and critically analyze at least *one supplementary source for each class session*. The supplementary reading(s) should be on the topic of discussion for that week but should *not* duplicate the assigned reading. For example, if your assigned reading was on observation as a research technique, your reading could be on *a study or project in your area of interest that used an observation technique to collect data!* Simply do bibliographic entry in Endnote (see below) with the information one would expect in an abstract. Be prepared each week to verbally summarize your reading for the group and to share the source. The supplementary readings are a portion of your "assignments grade." Readings are required and expected for each week except for those weeks noted with "no reading is required" on the syllabus. *Make sure that you number your readings by the week number from the schedule, below (R1, R2, etc.)!* Maintain a bibliography of your readings using an agreed-upon citation style. You need to develop this bibliography using Endnote 6, which you can purchase at the bookstore at a special academic price. Your Endnote files will be due as noted on the schedule (two times during the semester). **Completion of the readings bibliography in Endnote format is a course requirement for each student.** This approach to building a bibliography should be of great assistance to you throughout your graduate education experience and will be a tremendous time saver during work on your thesis or applied project and class papers. More information on the ASU Bookstore is available through this link: <http://asucs.asu.edu/>. More information about Endnote is available through this link: <http://www.niles.com/>. You can download a demo copy to see the advantages of using a program of this nature during your graduate experience. (I will combine all of the individual Endnote files into one master file that each student can download from the website at the end of the semester → for your future use.
- Each student will be expected, in a two-person team or individually, to lead class sessions. Sign-up for sessions during the *second* class meeting. Teams or individuals can determine the method and format of the learning session. You may also involve other class members in reaction, commentary, or discussion roles! Make it cooperative or collaborative in some form.
- Depending on your own yet to be determined thesis or applied project topic, you will need additional course work in research methods, statistics, design methods, or other courses to expand the survey knowledge that you gain from this class. You will select those classes in consultation with your advisor.
- Please note that re-scheduling of some classes will be required. We will discuss these changes in advance of a need to re-schedule. Class sessions that I know currently present conflicts are noted on the syllabus with "****".

Class Meeting Time, Office Hours and E-Mail

The class is scheduled to meet as noted above or as announced, if more than one section is required because of enrollment. On occasion, we will need to reschedule class as noted above. My office is AED 72. I usually post my schedule on a two-week basis. If times do not fit your schedule please talk with me after class and we can find an alternate time that works!

Grading Method

100 - 90	=	A
89 - 80	=	B
79 - 70	=	C
69 - 60	=	D
59 -	=	E

Breakdown of Grading

TOTAL = 100 points

- Twelve Mini-assignments @ 2.0 points each. **24 points**
- Ten (weekly) abstracting assignments @ 2.0 points each. Enter in Endnote as bibliographic citations. **20 points**
- Team presentation of topic(s) (selected on week 2) **16 points**
- Mini-proposal. **30 points**
- Weekly "active" class attendance/involvement. **10 points**

Student E-Mail and Computing Accounts

Each student should go to the Computing Commons to sign-up for an e-mail account and other access rights to use the computing sites on campus and the Internet. It is a simple, one-stop process done at a computer. Go to the Computer Commons atrium and look for, or ask for, instructions for opening an account. Ask for assistance from "continuing" graduate students if needed. After your account is activated, you will be able to E-mail me, use computers in the Commons, and many other inviting opportunities!

Some of your assignments will require extensive literature and data searching, which I would expect you to do conventionally through the library and on-line through the Internet and World-Wide-Web. You may also be interested in developing your own home page on the web, through college resources, to share your knowledge work!

Additional Resources

You may find the following web links useful in your quest to learn about research methods. We should all add to this listing by forwarding web addresses to my email address so the sources can be added to the course web page and/or announced in class. Please note that these are examples of links that maybe useful to you. Look for, and share, others on your own or as a class. Also advise me by email of new links that are useful or if these links are no longer active or have changed.

General ASU Research Info:

<http://researchnet.asu.edu/>

<http://www.asu.edu/aad/manuals/rsp/index.html>

<http://www.asu.edu/caed/herberger/index.html>

Research Labs

http://www.yahoo.com/Government/U_S_Government/Research_Labs/
http://www.yahoo.com/Government/Research_Labs/

Style Manuals

<http://www.apastyle.org/>
<http://www.uwsp.edu/acad/psych/apa4b.htm>
<http://webster.comnet.edu/mla/index.shtml>
<http://www.mla.org/>

Research & Writing

<http://www.researchpaper.com/>
<http://owl.english.purdue.edu/>
<http://etd.vt.edu/>
<http://www.clet.ait.ac.th/el21open.htm>

Reference Sources

<http://www.mit.edu:8001/people/map/bartlett-hack.html>
http://humanities.uchicago.edu/forms_unrest/ROGET.html

On-line Book Stores

<http://www.amazon.com/>
<http://www.barnesandnoble.com/index.asp?userid=1KAX14HEPK>

Web Search Engines

<http://www.asu.edu/asuweb/footer/search/>
<http://www.google.com>
<http://www.copernic.com> (download their free search tool – it searches all popular search engines)

Research Methods Classes at other Universities

<http://spsp.clarion.edu/mm/RDClass/Syllabus.html>
<http://davinci.socsci.mcmaster.ca/soc3i3.html>
<http://davinci.socsci.mcmaster.ca/soc740-98.html>
<http://methods.fullerton.edu/>
<http://www.hist.umn.edu/~ruggles/hist5011/>

Research Methods Bibliography – Sources Consulted by Previous Students in 500 Methods:

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