

47.269 Research I: Basics
Syllabus
FALL 2012

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<i>Place</i>	MA 108	<i>Time</i>	TuTh 9:30-10:45
<i>Prerequisite</i>	47.101	<i>Office Hours</i>	Tu 11-12:30 Th 12:30-2

I. Course description

From the UMass Lowell Course Catalogue:

“An introductory course concentrating on the basics of scientific research in Psychology. Students will learn: how to acquire information from libraries and the internet; methods for collecting data, such as surveys, case studies, unobtrusive measures and observational procedures, in experimental, quasi-experimental and correlational designs; how to operationalize variables to create reliable and valid measures; to identify types of data and how to describe and graph data; the basics of hypothesis testing and statistical significance; how research is communicated in research reports using APA style. Attention will also be given to ethical issues in research with human and nonhuman subjects. Prerequisite: 47.101 or its equivalent. 3 credits”

A final grade of C or better in Research I is a prerequisite for enrolling in Research II and Research III. In other words, pursuing a Psychology major is dependent on performing at a C level or above in this course. Note that BLA students (Bachelor of Liberal Arts) who have two areas of concentration may elect to have Psychology as one of them without completing the research sequence.

So, why take this course? Research is at the core of what Psychologists do. It is a method for acquiring evidence that can be used to support practice or policy or inform us about human nature. It is not without its limitations. That is one of the most important reasons to understand research methods To be able to interpret the literature with respect to findings and limitations.

II. Course Goals

When you have completed this course you should be able to:

- Apply the scientific method to the formulation and refinement of research questions
- Distinguish between primary and secondary sources
- Identify empirical research articles and be able to search efficiently using standard databases such as *PsycInfo*
- Evaluate the credibility of information available on electronic media
- Apply principles of psychometrics for the assessment of validity and reliability to the selection and construction of research tools
- Distinguish among experimental, correlational, and descriptive designs and apply them appropriately to research questions
- Identify the strengths and limitations of major types of assessment (i.e., surveys, interviews, observation, physiology) and apply them to relevant research designs
- Use operational definitions to describe psychological constructs and procedures
- Identify the strengths and limitations of between- and within-subjects designs and apply those designs to relevant research questions
- Use the appropriate descriptive statistics to describe the central tendency and variability of a body of data
- Describe a research design using APA style to organize and cite information
- Use these principles to critique the design of studies and identify whether conclusions are supported by the methods employed
- Apply these principles to an original research design based on primary source empirical journal articles and employing an experimental manipulation that is minimal risk and well controlled.

You will find that this type of thinking, “What is the evidence?” translates into the types of critical thinking skills that will serve you well, not only in your psychology careers, but in reading the newspaper, engaging in conversation, watching movies, and listening to “talking heads.”

III. Course Expectations

I expect that you will come to class, participate in class, keep up with reading the text book so that you come to class prepared to participate, and complete all assignments on time. *You can expect to spend **at least 8-12 hours each week on this material, with significant variation depending on your personal learning style.*** If you anticipate any problems with these expectations, you might re-think the appropriateness of taking this course at this time. Furthermore, if you are taking other accelerated courses and plan to let this one slide until after they have finished, you should re-think the wisdom of that decision. This is a course that requires consistent engagement from Day One!

You will have 10 **assignments** to complete. All assignments are due on Tuesday of the following week in class unless otherwise posted. Assignments will continue to be accepted through the following Tuesday but be penalized as late. Assignments submitted after Tuesday will *not* be accepted. **Please note that only assignments submitted in class will be accepted.** The TA (to be named) will be grading your assignments in consultation with me.

You will have 8 weekly open-book, open-notes **quizzes** that are required, though worth relatively few points toward the final grade. These are designed to keep you on your toes. Some questions on the quizzes will be repeated on the exams. So it makes sense to work at them and be sure you understand the answers. Note that quizzes will begin in the second week of class to permit some of the dust of drop/add to settle. All quizzes must be completed by the end of the week, Sunday, 11:59 PM EST on **Blackboard** unless otherwise posted.

You will have three **exams**. The first two will focus on the material we have covered in the preceding unit. The third will be a comprehensive final exam. Note: All exams will be comprehensive in a sense since this material builds on what came before.

You will “attend” two **research colloquia** offered in the Psychology Department. I encourage you to attend colloquia in person but you may also watch streaming video of the colloquia, which are posted at <http://www.uml.edu/dept/psychology/colloquia.htm> shortly after each talk is presented; you may choose any of the presentations from the 2007-2008 series forward. For each research colloquium that you “attend,” you must complete a colloquium attendance form [located in *General Materials*] and submit it in class. Note: There is nothing wrong with doing them early rather than waiting until the end of the term when your lives will be crazy enough without one more thing to do! Colloquia are worth 5 points each added to the assignment total.

You will create a **RESEARCH PROPOSAL** designed to test a *psychological* hypothesis based on your interests and the *empirical literature*. You will not have to carry out the proposed study but your *design* and *methods* must be carefully thought out and must comprise an *experiment* that is *minimal risk* and *well-controlled*, rather than a simple relational study. You will write the proposal using **APA style** for organization as well as citing references in the text and at the end. The proposal will be done in stages, beginning with topic approval.

Note well: Every italicized word in the above paragraph turns out to be critical. Watch for them throughout the semester

You will complete each of these items on-time. I will not accept late submissions without a documented emergency. There will be absolutely no exceptions to taking exams on time without a documented emergency and ADVANCE notice. Without advance notice, you will receive a 0 for that exam.

Please note that you must actually turn a paper in or take an exam or quiz in order to accrue any points at all; failure to take tests or quizzes or to turn in assignments or other papers will result in a grade of 0.

Plagiarism—the use of exact wording from another source without appropriate citation per APA Publication Manual, 6th edition—will result in a 0 for the assignment. This includes the final research proposal; you will have an opportunity to use Turnitin.com to screen for instances of plagiarism and correct them prior to handing in the final paper. Please note that any instances of plagiarism or other forms of academic dishonesty must be reported to the Office of the Provost. *You are responsible for adhering to regulations outlined in the UMass Lowell undergraduate catalogue with respect to academic honesty and integrity. I will ask that you submit copies of your research proposal to Turnitin.com for a screening process designed to detect plagiarism; watch for an e-mail containing login information.*

http://www.uml.edu/catalog/undergraduate/policies/academic_dishonesty.htm

IV. Accommodations & Support

Students with disabilities need to work through the UMass Lowell [Office for Disability Services](#). There are also a host of resources available through the UML [Student Counseling Center](#) and the [Centers for Learning](#).

V. Grading

Grades will be based on the quality of your work and contributions as outlined in Expectations above.

Activity	Grade Contribution
Participation in weekly discussion	5%
Assignments	
• Workshops	0% (Recommended, not required)
• 10 Assignments	20%
Research Proposal	35%
Exams	
• Exams & final	35%
• Weekly quizzes	5%

Final grades will be based on the final average (arithmetic mean) of exams, assignments, and the final research proposal, weighted as above. Letters grades will be distributed as follows:

A	92-100
A-	89-91
B+	87-88
B	82-86
B-	79-81
C+	77-78
C	72-76
C-	69-71
D+	67-68
D	62-66
D-	59-61
F	0-58

Remember that a grade of C or above is required in Research I in order for students to proceed to Research II. It has been my experience that not every student earns a C or better. If you do not earn a C or above in this class:

- You will not be able to take Research II until you do. The course may be repeated and a higher grade will be substituted; students will only earn credit for taking it one time (i.e., 3 credits for this course toward the 120 needed for graduation even if you take it multiple times).

- You might want to consider pursuing a BLA instead of a BA. The Bachelor of Liberal Arts degree requires two areas of concentration (similar to two majors, except without all the requirements) with 8-10 courses in each. The research sequence is not required for Psychology to be one of those concentrations.

Please note that requests for grades of INC or Incomplete may only be accommodated under extreme circumstances when most of the work for the course has been completed in a timely fashion. The everyday stresses of daily life (work, school, family) are **not** sufficient to warrant an exception.

VII. Class Resources

You have an excellent **required textbook** that is required for this course:

- Gravetter, F.J. & Forzano, L.B. (2012). *Research Methods for the Behavioral Sciences (4th edition)*. Belmont, CA: Wadsworth/Thomson
- It has a companion website that you also should consult regularly: [Gravetter & Forzano, 4th edition Companion site](http://www.wadsworth.com/cgiwadsworth/course_products_wp.pl?fid=M20b&product_isbn_issn=9781111342258&token=)
 - http://www.wadsworth.com/cgiwadsworth/course_products_wp.pl?fid=M20b&product_isbn_issn=9781111342258&token=
- Research and statistics workshops, and a variety of research methods videos are also available online: [Research Methods Workshops](http://www.wadsworth.com/psychology_d/templates/student_resources/workshops/resch_wrk.html)
 - http://www.wadsworth.com/psychology_d/templates/student_resources/workshops/resch_wrk.html

There are two other recommended books:

- *Publication manual of the American Psychological Association* (6th ed.). (2010). Washington, DC: American Psychological Association.
- Hock, R. (2008). *Forty Studies that Changed Psychology* (6th ed.). NY: Prentice-Hall.

You will be able to complete the course successfully without purchasing these recommended books, but they will be of assistance to you in this (and, I assume, in other courses) should you desire to obtain them.

Both the Teaching Assistant and I will be available for office hours and assistance.

REMEMBER

During every week of the semester, you should think about how the information we are covering might inform you in some topic in which you have interest. This will become the basis for the research proposal you develop for the end of the semester. When we learn about literature searches, try to search for some literature about a topic of interest to you and something you might like to think about testing experimentally. Your final proposal is really a capstone project for this course and an opportunity to demonstrate that you can apply (in theory, remember you do not have to DO it) the constructs we have covered in class.

Finally, remember that consistent participation is the key to success in this class. Ask questions, discuss with other students, share your ideas, and be open to constructive criticism. Final grades averaged across levels of discussion in Fall, 2011 showed a strong correlation. Students who participated most in the class had the highest grades in the end. Obviously, there were exceptions, but, in the many semesters in which I have taught this and other research classes, **active participation from the beginning** is the best thing you can do to enhance your learning experience. Your participation grade may only contribute 5% to your final grade, but the benefits of participation far exceed that contribution.

Best of luck!!