RESEARCH METHOD, AND DESIGN II AND LAB (PSYC 2224 224)

Instructor:

Dr. Cynthia Dulaney

Office:

212 Elet, 745-3535

Email:

dulanev@xavier.edu

Office Hours: Thurs. 2:30-4:00 and by appointment.

Reading List:

> Zechmeister, J. S., Zechmeister, E. B., & Shaughnessy, J. J. (2001). Essentials of research methods in psychology. Boston, MA: McGraw Hill.

> Stanovich, K. E. (2004). How to think straight about psychology (7th ed.). Longman.

> American Psychological Association. (2005). Concise Rules of APA Style. Washington, DC: Author.

> Chapters on e-reserves

Objectives

This class is designed to familiarize you with how scientists perform and report experiments that help lead us to a greater understanding of psychological processes. Building on the information obtained in the Experimental Research and Design I class, you will be provided with additional knowledge of experimental psychology and substantial experience to design and critique psychological experiments. This additional knowledge will be gained through class discussions, review of research projects, and completion of your own independent research project.

In addition to the usual objectives of this class, this semester you have the opportunity to learn how to be advocates for the individuals who are served by a social service agency. You will learn how to advocate by understanding and raising awareness of issues and needs for underserved individuals by gathering information and data about a social service organization. You will also learn to advocate by writing a grant proposal requesting funding for a project within the organization. The most exciting part is that you will actually be able to give the agencies money to assist in projects! The available money is a gift from a local philanthropist. Your research and writing skills will be put to use to serve the community!

Evaluation

Important Note: Approval of your project by the in-class IRB, turning in of raw data (e.g., completed surveys) and informed consents, and completion of a research paper are **absolute requirements** for this class. Failure to do any of these will result in an F for the course, even if you have done well on all other aspects of the course.

Final Course grade: The following percentages will be used to determine your final course grade:

| Α | 93-100 | С | 73-76 |
|----|--------|----|-------|
| A- | 90-92 | C- | 70-72 |
| B+ | 87-89 | D+ | 67-69 |
| В | 83-86 | D | 63-66 |
| B- | 80-82 | D- | 60-62 |
| C+ | 77-79 | F | 0-59 |

See page 7 of syllabus for "General Classroom Policy, Comments, and Guide to Success"

To meet the course objectives, there will be the following course requirements:

| Topic | Percentage of Grade |
|---|---------------------|
| Grant Writing and Philanthropy (see page 3 of syllabus for | |
| details) | |
| Grant Proposal (team grade) | 10 |
| Grant Proposal (peer ratings of your contributions) | 5 |
| Pre-Course Survey: Service Learning Philanthropy Project | 1 |
| Post-Course Survey: Service Learning Philanthropy Project | 1 |
| Reflection Paper | 2 |
| Power Point Presentation | 2 |
| Independent Research Project (see page 4 of syllabus for details) | |
| Research Paper | 20 |
| Research Presentation | 4 |
| Peer Review of Introduction | 2 |
| Peer Review of Method | 2 |
| Peer Review of Results and Discussion | 2 |
| Stanovich Textbook (see page 5 of syllabus for details) | |
| Reaction papers on Stanovich Chapters (1% per chapter) | 10 |
| Stanovich Exam 1 (Ch. 1-4) | 10 |
| Stanovich Exam 2 (Ch. 5-9) | 10 |
| Stanovich Exam 3 (Ch. 10-12) | 10 |
| Other | |
| Reaction Paper: Race and Gender as Independent Variables | 2 |
| Reaction Paper: Scientific Responsibility | 2 |
| Participation and Attendance | 5 |
| Total | 100 |

Grant Writing and Philanthropy

In addition to learning the process of conducting research as part of this course, you will also learn how to apply your research and writing skills in order to assist the local community. This semester we have been offered a very unique opportunity. As part of the class this semester, you will have \$4,000 to distribute to community agencies that support individuals who are underserved in the community. Wow! This opportunity is made possible by a local philanthropist who gives money to Xavier University each year for such class projects. You will have an opportunity to thank this philanthropist in person at a ceremony in April. **Attendance to this ceremony is required** (except under extenuating circumstances).

You will be placed in one of four research teams (5-6 students per team), with each team writing a grant proposal. Each team's grant will focus on a different underserved category. Three of these categories coincide with the Psychology Department's area of interests in our doctoral program: children, severely mentally ill, and the elderly. The fourth will be an "other" category, which could include any underserved population not fitting into the three designated categories.

As an "advocate" for your team's organization, your team will write a grant proposal requesting funding for a particular need within that organization. The entire class will determine what content should be in the grant proposals, but we will closely follow the Greater Cincinnati Common Grant Application format (http://www.greatercincinnatifdn.org/page509.cfm). The entire class will also determine the criteria to be considered in awarding the grant as well as the weighting deemed appropriate for each of the criterion. Criteria may include (but not be limited to) the following:

- Needs of the population being supported by the organization
- Previous effectiveness of the organization in serving their target mission
- Impact the investment will have on those served by the grant
- Adequacy of budget justification
- Fit with organization's priorities
- Presence of measurable outcomes
- Low risk of failure

Your team (or designated members of your team) will visit your organization at least two times. The first visit will be to interview appropriate staff about the mission and needs of the organization. The second visit will be to receive feedback on the accuracy, feasibility, etc. of the proposal draft. You will be evaluated on the quality of the final grant proposal, as determined by thoroughness of the proposal, adequate research of the needs of the organization, quality of writing (clear, concise, etc.), and professional presentation document. In addition, team members will rate each other on contribution to the project, timeliness in completion of work, etc.

Each team's grant proposal as well as the grant criteria developed by the students in the course will be submitted to graduate students enrolled in Psyc 623: Research Practicum. This graduate class will serve as the "Grant Review Agency" (GRA) for proposals. By the time the graduate students review the grant proposals, they will have covered program evaluation, grant writing and funding opportunities, and writing research proposals for their dissertation. Having these graduate students act as the GRA will add pedagogical value to their course as well as provide your class with an "unbiased" review agency, rather than your class reviewing their own grants. The GRA will determine which organization(s) receive funding as well as the amount of funding for the organization(s) based on the justification, feasibility, etc. of the grant proposal (as determined by the criteria you develop).

At the beginning and the end of the semester, you will complete a survey entitled: Service Learning Philanthropy Project. In addition, you will complete a reflection paper essay, due at the end of the semester, which discusses your experience with the philanthropy component of this class.

Evaluation:

Grant Proposal (team grade)
Grant Proposal (peer ratings of your contributions)
Pre-Course Survey: Service Learning Philanthropy Project
Post-Course Survey: Service Learning Philanthropy Project

Research Project

Each student in the class will design and conduct an independent research project. The student will be responsible for the idea, the design, implementation, data analyses, interpretation, and write-up of his/her experiment.

Guidelines for Research Project

1. Experimental Design: Your research project must use an experimental design (e.g., not a correlational study or an opinion survey). Thus, you must manipulate a variable in your study. I generally will not allow you to use subject variables as one of your manipulated variables (e.g., gender), but I have allowed individuals to examine subject variables if the literature strongly warrants it (e.g., young vs. older adults). Under unusual circumstances, I might make an exception to this requirement.

Your idea does not have to be "original." That is, you are allowed to conduct replications of previous research. However, I recommend that such projects be replications with a "twist." That is, you basically replicate with a minor change or you test the same hypothesis in a different way.

- 2. <u>Feasibility of project</u>: You must propose a design that is feasible. Therefore, you will most likely need to consider using college students due to their easy access. However, students in the past have conducted research with elderly individuals. If you would like to conduct a study that requires off-campus resources, be aware that it may require a lot of extra work. I do not discourage such extra effort, I just want to make sure you are aware of such additional requirements. Keep in mind that you only have one semester to complete the project. Although you may have grand ideas for an elaborate project, you can save those ideas for your post-graduate research.
- 3. <u>Special populations or topics</u>: Per Xavier's IRB, you cannot conduct studies with children or on sexual or drug-related behavior, etc. without an approval by Xavier Universities IRB (see IRB website for more guidelines). However, you can ask students about their opinions of such behaviors, etc.
- 4. <u>Ethics</u>: Your research study will be required to follow ethical standards of research, as outlined by APA and XU's IRB. This semester, I will be responsible for overseeing that requirement.

Grading:

Review Board (RB): Every student must present his/her methodology to the class for a review prior to data collection. You will provide a brief oral description of your methodology, a copy of your informed consent, debriefing, and any other relevant information (e.g., survey). Your methodology will be reviewed by the class. Once the class and the instructor agree that all aspects of your project follow APA ethical guidelines, you may proceed with data collection. This is a requirement for passing this course (see *Evaluation* section of syllabus).

Paper: All aspects of your project must be approved by me before any data collection is conducted (e.g., informed consent, debriefing, procedures, etc.). Because of the extreme importance of ensuring that ethical guidelines are being followed, failure to get approval of all aspects of your project prior to data collection will result in a failing grade for the class. Two students may conduct their independent project together. However, each student will independently write-up the project. The guidelines for one- and two-person projects will be outlined in class.

Presentation: At the end of the semester, all students will prepare a poster presentation of their project. These poster presentations will be displayed during class time on **April 27**. **Attendance is required**, and you should dress in a professional manner on that day. Why? -- Because other psychology students and faculty will be invited to attend.

Raw data: Note that you must turn in all your informed consents and completed data forms (e.g.,

surveys) by the final exam date. Failure to turn in this data will result in a failing grade for the class.

Stanovich Reading

Reaction Papers. For each chapter of the Stanovich book, you will write a reaction paper. Your reaction paper should be approximately one single-spaced (or two double spaced) typed, pages. A reaction paper is not just a summary of what the author(s) stated. It is a critical appraisal of the paper. The paper may include discussion of one or more of the following:

- 1. One or more main points of the paper
- 2. Your opinion about such points (agree, disagree).
- 3. How some point or issue relates to an experience you have encountered
- 4. The author's support for his/her claims and conclusions
- 5. Expansion of the application of the reported findings and conclusions
- 6. Your reactions and thoughts as you were reading the paper

Regardless of how you focus the content of your reaction paper, it should be thoughtful, intelligent, and well-written (coherent, grammatically correct, etc.).

Reaction Papers are due no later than the day on which you take the exam. However, please feel free to turn them in early for grade and comments.

Exams: Exams will consist of identify terms and essay questions. Answers to identify and essay questions must be well-written, coherent, and clearly indicate your understanding of the answers.

The exams on the material in Stanovich will be self-directed. I will have four in-class times for the exams (see page 6 of syllabus for dates). If you work best with structured assignments, I suggest you take one exam on each of the scheduled in-class exam times. However, if you prefer to "finish" this part of the class earlier, you may opt to take the exams earlier, whenever you feel you have mastered the material. You may also take more than one exam on a scheduled test date (but I do not recommend it). My goal with this self-direction is to give you the autonomy and flexibility to complete this part of the course requirement at your own pace. Many tasks in life have no step-by-step deadline; you are just supposed to complete the tasks in a timely manner. The self-directed pace of your requirements related to Stanovich will give you a taste of real-world deadlines (or lack thereof).

ANTICIPATED LECTURE AND READING SCHEDULE**

| Date | Topic | <u>Assignment</u> |
|----------|--|--|
| Jan 10 | Overview | Service Learning Philanthropy Project Pre- |
| | Review Board | Course Survey |
| 12 | Philanthropy: Guest Speaker—Dr. Gene Beaupre, Director | |
| | of Government Relations | |
| 17 | Review Board | Complete Research Proposal Timeline |
| 19 | Grant Writing: Guest Speaker Margaret O'Gorman from | |
| | University Relations, Assistant Director of Grant Services | |
| 24 | Teams determine distribution of responsibilities and | Schedule on-site visit to potential organizations |
| | complete tentative timeline for grant proposal | (within the next 2-3 weeks) |
| 26 | | Reaction Papers due |
| 31 | Determine criteria for evaluating grant proposals | |
| Feb 2 | | |
| 7 | 9 1 1 | |
| 9 | Review Board | |
| 14 | In-class group meetings to work on grant proposals | D C D |
| 16 | Stanovich Exam Period 2 | Reaction Papers due |
| 21 | Review Board | Duett of Desearch Dener Introduction |
| 23 | Peer Review of Research Paper Introduction | Draft of Research Paper Introduction |
| 28 | Spring Break | |
| Mar 2 | | Schedule follow-up meeting with organization |
| 7 | In-class group meetings to work on grant proposals Review Board | Schedule follow-up meeting with organization |
| 9 | | Polish proposal based on visit with organization |
| 14 | In-class group meetings to work on grant proposals Peer Review of Research Paper Method | Draft of Research Paper Method |
| 16 21 | Special Topics in Research Method and Design: Ethnicity, | Reaction Paper Due: Sue, Kurasaki, & |
| 21 | Gender and cross-cultural issues in clinical research | Srinivasan chapter (1999) on e-reserves |
| 23 | Stanovich Exam Period 3 | Reaction Papers due |
| 28 | Lecture: How to Do Good Power Point Presentations and | Trouble Transfer of the Transf |
| 20 | Posters | |
| 30 | Special Topics in Research Method and Design: | Reaction Paper Due: Whitley chapter (2002); on |
| | Professional and Social Responsibilities of Scientists | e-reserves |
| April 4 | Final Polishing of Grant Proposals and Presentation | |
| 6 | How to create figures and graphs (APA style) | Submit proposals to GRA (electronic) |
| 11 | Presentation of grant proposals | Present grant proposals to class |
| 13 | Easter | |
| 18 | GRA determines recipients and amount of funding | Notify organizations of grant awards, ceremony |
| | Peer Review of Results and Discussion | Draft of Results and Discussion |
| 20 | Work on Research Paper | |
| 25 | Research Paper Due | Research Paper Due |
| | Finalize Poster Presentations | Service Learning Philanthropy Project Post- |
| | | Course Survey |
| 27 | Poster Presentation Session | Poster Presentation |
| | | Open to all XU students and faculty |
| May 4 | Discussion of Service Learning Survey Results | Attendance Required! |
| 10:30- | Course Evaluations | Course Evaluations Philanthropy Reflection Paper |
| 12:20 | Philanthropy Reflection Paper | Letter to Students in Research Method and |
| | Letter to Students in Research Method and Design I | Design I |
| | Stanovich Exam Period 4 | Design i |

^{**}This schedule is tentative. It is your responsibility to be in class on time to receive any announcements regarding changes in this schedule.

General Classroom Policy, Comments, and Guide to Success

Class Participation and Attendance: Note that attendance is required on the last day of class (i.e., during finals week). If you do not attend on this day and/or the poster presentation day, you will receive a substantial decrement to your class participation grade, possibly the entire 5% of the course grade.

Let me say that <u>attendance in this class is extremely important</u>. During many classes we will be reviewing others' research projects. Although this is about "their project" not yours, it is an extremely important part of the learning process in this class. When we review the projects of your classmates, not only are we assisting them in making their project better, we are learning about many aspects and considerations required when conducting and evaluating research. Believe me, even if you never conduct another research study in your life, you will forever be a consumer of research knowledge and you need to be able to evaluate that knowledge (and how it was obtained) in an intelligent fashion.

Grading: All exams, papers, and assignments are due at the **beginning** of class on the scheduled due date. Any graded item turned in after the beginning of class (i.e., after 1:00) will receive an automatic 10% deduction for each 24-hour late period (a graded item turned in after class begins is considered late). No assignment will be accepted beyond one week after the due date. Students who have missed an assignment or exam will be permitted to complete a make-up only when they can provide sufficient documentation (e.g., a doctor's note) for their absence. Otherwise, the student will receive a grade of 'zero' for the exam or assignment.

On occasion you may email an assignment or paper to me in order to meet a due date deadline, which is not during regular class time. However, you are required to give me a hard copy of the assignment/paper within 24 hours of the due time or it will be treated as a late assignment. (Exceptions to this policy may be made, but only with advanced agreement between the student and me.)

Every year a student requests that I raise his/her grade (e.g., because he doesn't want a C on his transcript, or she needs an A to maintain a scholarship). Try your hardest from the very first exam, and visit my office to discuss learning strategies, etc. DO NOT ASK me to raise your grade or allow you to do extra credit work. I will say no to either. If you want to dispute a score you receive, you must submit your reasons in writing. This policy is helpful for two reasons: First, if a score change is justified, it gives us a paper document as a record of the change. Second, it gives you a chance to think through and present your argument carefully, to maximize your chances of success.

Xavier University Policy on Plagiarism and Other Cheating:

"All work submitted for academic evaluation must be the student's own. The direct and unattributed use of another's efforts is prohibited as is the use of any work untruthfully submitted as one's own. Penalties for violations of this policy may include one or more of the following: A 'zero' for that assignment or quiz, an 'F' in the course or expulsion from the University. (Xavier University Catalogue)

Note that any instance of plagiarism in this class will result in an F for the course, and the Dean of your college will be notified of the plagiarism.

Please **read the attachment** that includes a more detailed description of plagiarism, or visit: http://staff.xu.edu/%7Edulaney/plagiarism.html

General Comments and Suggestions for Success:

Be on time for class. I will generally make announcements and comments on assignments, etc. at the beginning of class. Furthermore, it can be difficult to catch up with what is going on if you miss the first few minutes of class (and disruptive if you ask the person sitting next to you to catch you up). It is also disruptive to the entire class to come in late.

Read each assigned reading prior to class.

If you do not understand something that is discussed in class, please do not hesitate to ask a question. Chances are if you don't understand it, other students in the class are also confused.

If you plan to do well in this class, you should start working hard from the beginning as the class materials build on each other through out the semester. It is much harder and stressful to try to catch up with the material and skills at the end of the semester.

If you feel you are having trouble with writing, research, or understanding material, PLEASE see me early in the semester so that we can address the difficulties. We will develop a plan to assist you in mastering the material.

Go over your notes within a day or two after the class, while your notes are still relatively fresh in your head. I also recommend rewriting your notes and filling in with textbook materials as you rewrite.

When you study for exams, don't just memorize the material. Also make sure you can provide examples of and apply the material.

Because the exams and your writing assignments depend heavily on in-class material, it is important that you attend every class.

Be aware that most of your assignments are typed and computers, disks, and printers do crash; power outages do happen! Plan ahead for such occurrences! Do not wait until the last minute to complete an assignment or print a copy of the assignment. Save the document in several places (e.g., hard drive and disk) and perhaps email it to yourself so you have it stored in another place. (However, some email accounts do not allow for easy opening or printing of documents, so check this out ahead of time if you are using it for a backup).

In case you were not aware, the credit system is designed such that a one semester credit should require approximately three hours of academic work per week. According to that formula, an A in this course should require approximately nine hours of academic work per week. I think you will see rather quickly that that formula is appropriate for this course—you will put in a lot of time and effort for this course.

Although you are expected to attend and participate in all classes, your cell phone is not. Please turn off your cell phone prior to entering the classroom. If a cell phone rings in class, it is disruptive to the class and disrespectful to the instructor and your classmates. If you need your cell phone on for a special situation, please notify me prior to the beginning of that class meeting.

After completing this course, please remember the skills you have obtained from all your hard work. Regardless of the career or job you pursue, you should remember to put the skills obtained from this class on your resume:

Ability to critically evaluate published research

Ability to develop research hypotheses

Ability to design research to answer questions

Ability to use statistical software and data spreadsheets

Ability to write concisely

Ability to present a professional document

Ability to edit other's writing