PSYCH/NEURO/DOUBLE 600 and 610: Senior Project
Allegheny College, *Semester*

THIS IS ONLY A TEMPLATE FOR THE SENIOR COMP PROJECT SYLLABUS THAT INCLUDES GENERAL INFORMATION. YOUR FIRST READER WILL PROVIDE YOU WITH A MORE SPECIFIC SYLLABUS DURING COMP GROUP.

Instructor:
Office Hours:
Phone:
Email:

Course Overview and Goals

The Senior Project is a capstone project: the culminating piece of your academic work here at Allegheny. This project is an opportunity to experience every aspect of psychological research, from the inception of ideas to the presentation of the completed project in the form of an APA-style article and a poster or a talk. Importantly, this is a time for you to explore a research question that is interesting, novel, substantive, and, above all else, your own. Some will choose to complete projects that require experimental designs, others will complete survey research or oral interviews and yet others will approach questions through the analysis of extant literature without collecting data. The senior Project can be done as a two-semester or a one-semester project. This syllabus outlines the process for both semesters of a two-semester project.

Psychology Department Learning Outcomes

In this Senior Project you should be able to demonstrate that you can:
- Evaluate and use current theoretical and research trends in psychology
- Design and implement a research study including the development of hypotheses that are testable within the context of acceptable research strategies (for empirical projects)
- Recognize the ethical aspects and implications of psychological research and practice
- Synthesize information arising from different sub-areas of psychology
- Understand the application of psychology to personal and social issues
- Recognize and understand the complexity of sociocultural diversity

...by demonstrating
- An understanding of the various models of behavior (e.g., psychodynamic, behavioral, cognitive, biological, etc.);
- Knowledge of the sub-areas of psychology;
- Knowledge of various strategies for developing knowledge in psychology;
- Knowledge of recent trends in psychology;
- Knowledge of theory in at least one sub-area of psychology
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Some suggestions from APA:
- Describe the knowledge and skills gained through the major and Senior Project, understand the value employers place on your knowledge and skills, and be able to explain the connection between the major

and Senior Project and the job (future career goals).
- Recognize and describe broad applications of information literacy skills obtained in the psychology major
- Describe how psychology's content applies to business, health care, educational, and other workplace settings
- Understand how your skills, degree, experiences, and brand prepare you to land a job that's the right fit for you.
- Connect the skills, interests, and values you gained at Allegheny College and your Senior Project to specific career opportunities of interest.

To achieve the above, you need to accomplish the following:

Fall Semester (2CR):

For all projects:
- Develop a detailed timeline with sub-goals outlining specific tasks and dates to be completed throughout the semester.
- Review the setup, structure, and style of a psychological research paper written in APA-style.
- Make significant progress on your literature review or proposal above and beyond the Junior Seminar proposal.
- Turn in drafts of your comp to your first-reader for comments, expect to make revisions.
- Defend your proposal in a pre-comp oral, i.e., a meeting between you and your two readers. At this point, you will agree on the final project with both readers and what is expected of you. Ideally, this meeting is scheduled and conducted latest by October 31st.

For empirical projects:
- Review the basics of the scientific method and research methods in Psychology (PSY 206) with an eye towards the data analysis tools you will need to use (PSY 207)
- Collect or create your experimental or study materials (instruments, scales, tests, stimuli, pilot tests, etc.)
- Secure any necessary funding above and beyond the departmental limit, e.g. through the Class of 1939 fund
- Write a research proposal consisting of an Introduction, a Methods section, and an Appendix consisting of all study materials and stimuli (extant Junior Seminar proposal can be refined, if applicable)
- Turn in drafts of your proposal comp to your first-reader for comments, expect to make revisions
- Possibly pre-register your comp proposal with the Open Science Framework, or AsPredicted (in consultation with your first-reader)
- Submit your IRB/ARC proposal (must be done after the pre-comp oral), possibly revise and resubmit until approval. Ideally, your IRB/ARC proposal has been submitted in November, ideally a week or two before Thanksgiving. This year's Fall deadline is **November 18th** for reviews before winter break. Any proposals submitted after that date will be reviewed in January.
- Familiarize yourself with SONA, if necessary, and set up a researcher account.
- Possibly begin data collection or collect pilot data to test methodology.

For literature review projects:
- Prepare a detailed chapter-by-chapter proposal of your review and its aim
- Have at least half of your chapters written and submitted drafts for review and feedback

Spring Semester (4CR):

For all projects:
- Continue to make edits on last semester's work, add to it as outlined below
- Turn in a draft of the completed comp to your first reader (and possibly your second reader)
- Turn in a final version to both of your readers
- Present your completed project to your committee ("comp oral")
- Follow steps after comp defense to submit project to DSpace

- Write end-of-semester reflection and self-evaluation
- Submit your work as a poster or talk to the Western Pennsylvania Undergraduate Psychology Conference (WPUPC) to be held in late April at a local college

For empirical projects:
- Collect data
- Review JASP and data analysis steps
- Analyze your data
- Write the Results and Discussion sections, Revise Intro, Methods and References, as needed

For literature review projects:
- Edit chapters from last semester, as indicated by first (and possibly second) reader's feedback
- Write remaining chapters, submit for feedback
- Integrate all feedback, write conclusion

Resources

Located on the [Psychology Department website](#) you will find general information about The Senior Project including information about final deadlines, late penalties, [data analysis in JASP](#) (including detailed videos and guides), and writing the project. Please review these requirements and expectations. When you have a problem or question, **check the website first** and then ask me.

Your primary contact should always be your first reader for any questions or concerns. Your second reader typically will read your proposal before the pre-comp oral and give ample feedback then before reading the final version right before your comp oral. Some second readers may wish to be more involved, but you should expect to reach out to your second reader only *after* consulting with your first reader.

After consultation with your first reader, you may also consult with Prof. Normile on preparing for and conducting your statistical analyses in JASP, how to interpret them, etc. Please be aware that these consultations should *not* all happen during the week before Senior Projects are due.

Expectations

Independent and consistent work. This is an independent year-long project and as such it is expected that you make consistent progress on your project in line with the specific timeline you develop at the beginning of the semester which should address the goals outlined at the beginning of this syllabus. Although general guidelines for milestones are provided, with the exception of the final due dates, there are no hard and fast deadlines that apply to everyone. Consistent progress on drafts, IRB/ARC proposal, study materials, data analysis, etc. is expected and you are evaluated on your project management.

Overall, since this is an *independent* project it is crucial that you **take ownership** of your project from the beginning through the final phase of completion. As your first reader, I am here to help, encourage, advise, and mentor you, consult with you, and evaluate your work, but not to make sure you do it or do it for you.

Comp group attendance/ regular check-ins with your first reader. Generally, we will meet weekly as a comp group (students with the same first reader will meet) to discuss the progress you have made, the questions you have, and what you want to accomplish in the week to come. Comp group is **not** optional, it is a vital part of your experience. Because we will often do peer reviews, give feedback on each other's work, and discuss common questions, regular attendance or check-ins are mandatory. In addition to the regular meetings/check-ins, **you** are expected to initiate regular communication with your first reader (not vice-versa) and respond to their emails in a timely manner. In fact, comp group attendance and regular check-ins are a part of your Project Management grade discussed below.

Grading

The grade for the fall semester will consist of the following components:

First Semester

1. **Pre-comp oral (PCO) (25%)**: How well prepared are you for your meeting? How specific and comprehensive is your literature review to allow for your readers to follow your hypotheses and/or the premise of your project? How detailed and sound are your Method section and Appendices? How well can you talk about your project idea and plans? Note: This is not about perfection, it is about an adequate level of preparation. Ideally, this meeting is scheduled by October 31st.
2. **IRB/ARC proposal (25%)**: How complete is the draft you send to me (i.e., how many revisions do we have to make before we can even submit it? Does it appropriately contain all of the necessary elements (i.e. informed consent, all Materials, debriefing, etc.)? How timely is your completion of the proposal? How well does the proposal follow guidelines and any changes to your methodology that came out of the PCO? Ideally, the IRB/ARC is submitted latest by Thanksgiving.
3. **Project management and Scientific Scholarship (25%)**: How well and how independently have you managed the project, overall? How rigorously is the scientific method considered? This involves the effort put into the project, solving problems that arise, being proactive and working consistently over the course of the semester, active attendance and participation at weekly meetings including asking questions and providing feedback, seeking guidance when appropriate, staying on top of the project, and not waiting until the last minute etc. As a part of this, students might also be submitting a 1-2 page written reflection of their project management and scientific scholarship, as advised by their first readers.
4. **Written document (25%)**: This is the research proposal you submit at the end of the semester. How much progress have you made on your literature review? Is your Method section complete? Is the reference section comprehensive? Are Appendices complete? Is the document formatted in accurate APA-style?

** For literature review projects the grading breakdown is as follows: Pre-comp oral (30%), Project management and Scientific Scholarship (35%), Written document (35%)

Second Semester

1. **Project management and Scientific Scholarship (30%)**: How well and how independently is the project managed overall? This involves the effort put into the project, solving problems that arise, being proactive and working consistently, active attendance at weekly meetings, seeking guidance when appropriate, staying on top of the project, etc. In your second semester, this also involves how independently you approach data analysis – are you reading about your tests and giving it a solid try before coming to me? Are you proposing a draft of a Results section before asking for feedback? Are you getting drafts of Results and Discussion in to me to allow for enough time to get feedback? As a part of this students are required to submit a 1-2 page written reflection of their project management and scientific scholarship alongside the final written document each semester.
2. **Comp oral (20%)**: How well prepared are you for your meeting? How well, and how critically, can you discuss your project's idea, execution, results, interpretation, limitations, and future directions? How proficient are you in foundational theories, ideas, concepts, studies, etc. in Psychology, especially as they pertain to your work? Are you aware of and can you discuss the ideas of other experts on your topic? How scientifically and methodologically proficient are you (e.g, are you accidentally calling a correlational study an experiment? Do you know what r means? Is your study's title implying causation when your methodology doesn't allow for that?) How well can you reflect on the entire comping process and your growth and learning?
3. **Written document (50%)**: This is the final version of your project. This is due by the deadline posted on the Psych Dept. website. This final project will be evaluated based on how well-written and complete the paper is, how well it follows APA-style (including correct reporting of analyses), how much of the feedback from the pre-comp oral was incorporated, and whether it is submitted on time.

Failure to submit your final paper by the deadline will result in a grade penalty of one-third of a letter grade for each 24h period the paper is late. To avoid such penalties, you should discuss with me the possibility of an extension as soon as it becomes clear that documented extenuating circumstances keep you from completing your project on time. Please note that such extensions are subject to departmental vote.

End of Semester Reflection Paper
As advised by your first reader, a reflection paper is due when you submit your final paper in December and/or April. Prepare a typed, single spaced document and discuss the following issues as they pertain to your project. How did you approach your senior project over the course of the semester? Provide a reflection on what goals you achieved and which ones you lagged behind and why? Discuss how you approached this project independently and how you utilized comp group meetings? What are your most important take-aways from this experience?