Cognitive Science/Psychology 233: Laboratory in Cognitive Processes

Kathie Galotti
Winter 2017

Section 1: Monday, 2-5
Section 2: Tuesday, 2-5

Olin 11

This laboratory course, a co-requisite of Cognitive Science/Psychology 232, is designed to offer students hands-on experience in running and designing empirical work in cognitive psychology. Such experience, I hope, will allow a greater depth of understanding of how cognitive psychologists think about mental phenomena, and will allow you to approach the literature both more critically, and more appreciatively.

During the first weeks of the term, we will run some preprogrammed experiments on microcomputers in lab, using CogLab on a CD (version 2.0). We will also be busy designing instructions and learning how to summarize and present data. Labs later in the term will introduce other, less structured means of data collection, and will allow more flexibility and responsibility for the design of all parts of the study. Finally, some laboratory time will be devoted to your own individual projects that are required in Cognitive Science/Psychology 232.

To save you some money, I have purchased multiple copies of CogLab on a CD (version 2.0) and will lend them to you. I will have you pay a $5 deposit on the day you sign out a copy. That money will be returned to you when you return the book and CD (with the correct inventory number) on it at the end of the term. *Copies that are not returned will be billed to you at their replacement cost, which is currently $65.11).* If you do not return both the manual and the CD by the end of the term, we will have the Carleton Business office add this charge to your account.

Only a little additional reading is typically required for lab. However, as the attached schedule shows, Cognitive Science/Psychology 232 readings will often form the basis of our labs. Therefore, it is assumed that you will have completed the appropriate reading for lab ahead of time. It will often be assumed that you are familiar with the experiments being run from your reading, and so the instructions for each lab will not re-explain things.

Laboratory assignments often grow more complex than originally envisioned, and so the attached schedule of laboratories is **very much subject to revision**. However, you can expect to write up 2 laboratory reports, and to prepare and present one talk. **Weekly attendance is also expected and required**, except in the most unusual of circumstances. You should also ask ahead of time if you need to attend the other lab section. Let me remind you that the Psychology Department Macintosh laboratory will be open many evenings (schedule to be announced) for your use in this course.

Grading in the course will work as follows: Each formal laboratory report (co-authored with a partner), 30%; Final presentation, 10%, Class participation, attendance, and timely reports of data, miscellaneous other assignments 30%.

Week (dates)	Topic and Assignments Due
1) Jan 2, 3	(no lab, since courses don't start til Wednesday this term)
2) Jan 9, 10	An introduction to Cog Lab Cog Lab assignment on your own (data to be emailed to course assistant by the deadline tba in class)
3) Jan 16, 17	An Introduction to Experimental Design (film) Basic Cognitive Processes: Perception, Attention, Working Memory Identifying Independent and Dependent Variables Writing Method Sections Cog Lab assignment on your own (data to be emailed to course assistant by the deadline tba in class)
4) Jan 23, 24	Long-Term Memory and Knowledge Representation Institutional Research Boards: What They Do and Why It Matters (films) *Method Sections Due* Cog Lab assignment on your own (data to be emailed to course assistant by the deadline tba in class)
5) Jan 30, 31	Library Database Searching Writing Papers in APA Style *Database Exercise Due end of Lab* *First Formal Writeup Assigned*
6) Feb 6, 7	Midterm break—no lab this week (Start working on proposals for your own projects)
6a) WED FEB 8	**Lab Writeups Due , beginning of lecture**
7) Feb 13, 14	Higher-Order Cognitive Processes
8) Feb 20, 21	Higher-Order Cognitive Processes, continued *Second Lab Writeup Assigned* **Proposal for own projects due in class, Fri Feb 19**
9) Feb 27, 28	Own projects—Consultations and preparations Running Cog Lab studies **Lab Writeups Due, beginning of lab**
10) Mar 6, 7	Own projects: Running participants
10a Fri Mar 10	**Presentations Due—Presentation Session** (in 232 class)

Suggested reference: (see relevant chapters on Finding a research topic, Designing a research study, Collecting Data in Groups, Writing in APA Style: read as appropriate for your individual projects.

Leong, F. T. L. & Austin, J. T. (2006). *The psychology research handbook 2nd ed.* . Thousand Oaks, CA: Sage.