Introductory Psychology (PSY101)

Some focus on content.

Emphasis on HOW we know these facts.
- What is the scientific method?
- Correlation vs. experiment.
- Simple experiments with data collection, analysis, interpretation, and reporting.
- experiment conducted during class
- a class day devoted to active, collaborative work with an actual study
- theoretical predictions about a follow-up experiment, data collection and analysis

Textbook: Myers. Psychology.
- We’re thinking of switching away from a standard textbook, but haven’t yet.

Research Methods & Statistics (PSY201 & 202)

PSY201 (required for minors and majors):
- philosophy of science
  - what makes something a science?
  - experimental design
- descriptive statistics
- inferential statistics with one group
- replication project
  - groups of 4-5 students
  - replicate a published study, picking from 10 chosen by the department
  - IRB approval
  - data collection, analysis
  - APA style paper
- Learning how to conduct studies w/o having to create their own.

PSY202 (required for majors):
- inferential statistics through 2-way chi-square and ANOVA
- SPSS
  - creation of a “stats binder”
  - when to use each test
  - how to do the tests in SPSS
  - example problems
  - APA reporting format
  - used in future classes, capstone, senior comprehensive exams
- extension of replication project
- next logical step
- fixing conditions that didn’t work
- adding a second variable

Textbooks:
- Stanovich. How to Think Straight About Psychology.
- Pelham & Blanton. Conducting Research in Psychology: Measuring the Weight of Smoke.
  - statistics books vary by professor, but include

Content Courses (200-level)

We offer content courses in each of the 5 areas of faculty specialty – students must take at least 2:
- behavioral neuroscience
- cognitive psychology
- developmental psychology
- sensation & perception
- social psychology

Research In … Courses (300-level)

Majors must complete two of these courses, continuing from the 200-level content courses they took.

The format varies, but can include:
- journal club
- replication research
- novel research, the class as a whole or independently, sometimes students acting as subjects
- experiment proposal (possibly leading to a capstone project)
- single day demonstrations of examples of research
  (e.g., taste adaptation, language categorization)
- advanced statistical analysis
- APA-style papers
- peer review of papers

Publications have resulted from data collection and experiment proposals.

Literature Review (PSY301)

What is a literature review? How does it differ from a primary research article?
-~12 pages final product; 20+ references

Additional articles/sources are required at each week’s meeting.

Working with Excel table to organize articles
- columns for citation information
- columns for aspects of paper topic/sections of paper

Building an outline, fleshing it out into the final paper

Peer review

Workshop format
- class time for discussion of the writing process
- in-class work time with faculty member present for questions/guidance

Can be a pre-cursor to capstone, or a completely separate topic.

“ Idea Kernels” are given out
- research ideas the faculty want to work on
  - the students can frame their lit reviews and capstone projects around these

Texts:
- Galvan, J.L. Writing Literature Reviews.
- Snook, L.T. Writing with Style: APA Style Made Easy.

Senior Capstone (PSY495 & 496)

Year-long directed research project in a faculty-member’s lab. Required of all psychology majors.

Usually a topic from the faculty member’s research program.

In rare instances, these can be student-generated.

Benefits:
- we know the literature better
  (even if they did their PSY301 papers on this topic)
- we know the capabilities of our labs
- higher chance of publishable product (see below)
- we get teaching credits for completing research we want to do

Downsides:
- students don’t generate the study from the ground up

Senior majors meetings ~once/month, whole year
- how to prepare IRB requests
- how to prepare a research talk
- practice 2-minute elevator ride version of project
  (idea comes from venture capitalism – describe your project coherently before the venture capitalist gets off the elevator)

PSY495 (fall):
- Introduction
- Methods
- IRB approval
- stimulus generation

PSY496 (spring):
- data collection
- oral presentation at the Mid-America Undergraduate Psychology Research Conference
- group trip, seniors + 2 faculty members, overnight, meals, nice bonding experience
- poster presentation at on-campus Psychology Research Symposium
- best presentation receives cash award and poster hung the next year in a prominent location
- alumnus invited back for keynote talk
- entire APA-style paper written up

Publications resulting from capstones:

Bost, P.R., & Prunier, S.G. (W’09). (in press). Rationality in conspiracy beliefs: The role of perceived motive. Psychological Reports.

