

Department.: Psychology

Course Number: PSYC 202QW

Course Title: Principles of Research in Psychology

Credits: 4

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Catalog Copy : PSYC 202QW. Principles of Research in Psychology

Either semester. Four credits. Three 1-hour lecture periods and one 2-hour laboratory/discussion period. Prerequisite: PSYC 135 or 133 and STAT 100 or 110 (or Statistics Q 100 level). Open to sophomores or higher.

Design, analysis and reporting of psychological research. Experimental and quasi-experimental designs, laboratory and correlational techniques, research ethics.

Q Criteria : PSYC 202QW provides instruction on both research methodology and statistical analysis of data. As part of the statistical instruction, students are expected to be able to

(1) manipulate simple linear equations (e.g., solve for one missing element or re-arrange and simplify),

(2) recognize and understand non-linear equations (such as for the standard normal distribution or for the sums of square in analysis of variance), and

(3) apply the appropriate equation to word problems involving artificial and/or real data.

In addition, students are expected to conduct simple statistical procedures “by hand” (e.g., t -test for two groups) and compare their intermediate steps and final results with output from a standard computer package (typically, SPSS).

Because STAT 100 or STAT 110 is a prerequisite for PSYC 202QW, students are expected to have some familiarity with concepts such as central tendency, variability, statistical inference, power, and estimation. PSYC 202QW instructors typically do not provide remedial help in understanding basic mathematical principles like order of operations or how to work with the symbols for algebraic summations.

PSYC 202QW students begin the course with a review of how to describe data, calculating central tendency and variability using both definitional and computational formulas. Students are expected to be able to understand how to use the formula for the sum of square deviations from the mean, for example. A brief review of probability concepts provides the bridge to discussion of several inferential statistical procedures, including t -tests, F -tests (analysis of variance), simple linear regression, Pearson correlation coefficients, and (typically) a few nonparametric statistical procedures. For each statistical procedure, students are expected to be able to calculate the test statistic by hand using formulas provided, and to be able to relate these results to the values given in standard statistical analysis packages (for several years, SPSS has been the preferred package used in the course).

PSYC 202QW meets the requirements of the Q skill code. Knowledge of basic algebra is assumed, and students use linear and nonlinear equations throughout the course to calculate simple descriptive and inferential statistics. Students conduct statistical procedures by hand, and there is an emphasis on how these hand calculations relate to output from standard statistical packages.

W Criteria: PSYC 202QW will provide substantial individualized instruction on writing (APA style) in the discipline of psychology. Each student enrolled in PSYC 202QW will be given detailed instruction and feedback on writing a research paper in psychology. This training will include instruction in and feedback on writing in APA style, including writing a research paper introduction, a methods section, a results section, a discussion section, and a references section, as well as writing a research abstract and presenting research in poster form.

Each student in PSYC 202QW will be given training and feedback in how to write a research paper and in how to write a research poster “in the discipline.” Further, each student in the course will be given an opportunity to revise and resubmit his/her 15-page research paper in light of critical commentary on both the form and substance of his/her writing. Finally, each student will be required to pass the “W” portion of the course in order to obtain a passing grade in PSYC 202QW.

LABORATORY COURSE:

The PSYC 202QW “Q” component occurs in our laboratory/discussion sessions, which are designed to provide instruction and hands-on training in the research methods (e.g., naturalistic observation, between- and within-subjects designs, repeated measures designs), the data analysis tools (e.g., SPSS), and the statistical techniques (e.g., descriptive statistics, correlation and regression, ANOVA) that are used to conduct research in psychology. While these sessions are conducted in a computer laboratory, and while students are expected to become facile in the use of computer software (e.g., word, excel, SPSS), these laboratory sessions also include considerable discussion about the above topics as well as research ethics.

The PSYC 202QW “W” component will guarantee that every psychology major will have the same “W” training in the major, thus meeting the new GEOC requirement. Further, this training will occur early in the major (typically in the 3rd through 5th semester). This early training in writing will not only benefit students who take subsequent courses in psychology, but also benefit the instructors of record in these “advanced” courses (i.e., several advanced 200-level seminars, eight advanced laboratory courses, and three advanced individualized research courses that include PSYC 297, PSYC 299, and PSYC 296W) by having students who are better prepared. Thus, writing in PSYC 202QW will foster writing across our curriculum, rather than only requiring writing in the last one or two semesters. This early “W” training should result in continual improvement in writing skills as students progress through the psychology major.

Role of graduate students: Graduate student assistants will be used in PSYC 202QW in two capacities – as (1) laboratory/discussion session leaders and as (2) “W” instructors.

(1) PSYC 202QW laboratory/discussion session leaders:

Expected Role . These “lavatory” graduate assistants will be responsible for the two hour, weekly laboratory/discussion period. These TAs will have taken at least two graduate level courses in data analysis techniques (Stat 242, Stat 379), will be “advanced” graduate students (MA level or above), and will be selected from a pool of approximately 70 “advanced” (MA level or above) graduate students in psychology.

Preparation . These lavatory GAs will have had experience as TAs for PSYC 132 laboratories, as research team leaders in PSYC 297 and/or PSYC 299, and likely as discussion leaders in PSYC 135. These GAs

will be selected on the basis of their performance in the above two graduate level statistics courses, and on the basis of their performance as TAs for PSYC 132, PSYC 297/299, and PSYC 135.

Supervision : Throughout the semester, these laboratory GAs will be supervised by a faculty coordinator of PSYC 202QW and by a graduate student coordinator of PSYC 202QW. These GAs will meet weekly for one to two hours to discuss and review the previous week's lab activities, and to discuss and prepare for the up-coming week's activities in PSYC 202QW laboratory/discussion sessions. Finally, these GAs will be evaluated by their students near the end of the semester on several instructional dimensions, and will be given individualized feedback regarding these student evaluations by the Department Head, by the 202QW faculty coordinator, and by their major advisors.

(2) PSYC 202QW writing instructors:

Expected Role . These “writing” graduate assistants will be responsible for providing writing instruction and writing (as well as content) feedback to students enrolled in PSYC 202QW throughout the semester. This writing feedback will include both general writing skills and writing skills specific to the discipline (the official writing style endorsed by the American Psychological Association – i.e., APA style). These writing GAs will participate in the weekly PSYC 202QW laboratory sessions to provide writing instruction as appropriate, will hold multiple office hours each week to discuss writing issues and provide individualized writing feedback to students, and will provide systematic written feedback on students' writing throughout the semester.

Preparation . Graduate students who serve as writing GAs for PSYC 202QW will be an elite group, selected from a large pool (over 120 annually) of qualified graduate students. These selected GAs will have written and defended their MA thesis, will have written and defended a Ph.D. dissertation proposal, and more likely than not, will have written and presented or published several research papers in psychology. In addition, these writing GAs will have had experience as TAs for PSYC 132 laboratories, as research team leaders in PSYC 297 and/or PSYC 299, and as discussion leaders in PSYC 135, where writing is part of the curriculum. In short, because these writing GAs (4 to 5 each semester) will be selected on the basis of their demonstrated writing expertise (e.g., demonstrated ability to write in APA style by having authored funded grant proposals, presentations accepted for presentation at national professional meetings, and/or research papers accepted for publication in APA journals), we anticipate that we will be able to employ highly talented graduate students to serve as writing GAs in PSYC 202QW.

In addition to this initial selection, writing GAs in PSYC 202QW will receive training in “writing skills” from the Institute of Teaching and Learning (ITL) via Professor Tom Recchio in the Department of

English. This training will be intensive prior to the beginning of the semester, and may continue throughout the semester.

Supervision : These writing GAs will be supervised by a faculty member in the Department of Psychology who will serve as the “writing” coordinator for PSYC 202QW. These GAs will meet bi-weekly for one to two hours with the faculty writing coordinator to discuss and review the previous writing skills and writing assignments relevant to PSYC 202QW. [In 2000 and in 2001, we used this model that combined a faculty writing coordinator with selected GA writing instructors to successfully offer Psychology 167, a one credit “pilot” course that was yoked to Psychology 135.] Writing GAs for PSYC 202QW will also coordinate their efforts with PSYC 202QW laboratory/discussion GAs and with PSPYC 202QW instructors of record (faculty).

Finally, we note that the University Senate approved the Q/W course format as of Spring 2003.

SUPPLEMENTARY INFORMATION: (e.g. If this proposal covers a set of existing W or Q courses, please list the other courses covered by the proposal, and for each course indicate course capacity and frequency with which it is offered) See instruction sheet. NA

Insert the Email Address of your Departmental, Program or College C&C contact person in the box to the right and click on the submit button below.

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