

COURSE SYLLABUS

PSYCHOLOGY 368 (001): Perceptual Processing Term 2, 2018W

Instructor: Dr. Debbie Giaschi office: Kenny 3531 phone: 875-2345x7807
hours: Tuesdays 12:30–1:30 pm

Teaching Assistants:

	Wansu Qiu	Morteza Mousavi
office:	Kenny 3514	Kenny 3504
hours:	Thursdays 3:30-4:30 pm	Wed 10-11

We are also easily reached through Canvas using Piazza. All questions about lecture material, assignments and exams should be posted publicly, either anonymously or with your name attached, for the rest of the class to see. Questions of a personal nature should be posted privately for only Dr. Giaschi to see. Please sign up at piazza.com/ubc.ca/winterterm22018/psyc368001

Textbook: *Sensation & Perception, 5th edition* (2018) by J. Wolfe, K. Kluender, D. Levi et al.
(1 copy on 2-hour reserve in Koerner Library; eBook option [oup.com/us/wolfe5e];
1st [2006], 2nd [2009], 3rd [2012] and 4th [2015] editions are not suitable)

CD-ROM: *PsyCog: Explorations in Perception and Cognition* (2011) by Wytttenbach
(2 copies on 2-hour reserve in Koerner Library)

Website: canvas.ubc.ca (course syllabus, lecture outlines + instructional objectives, lecture slides, Piazza access, research group sign-up, assignment uploads, grades)

Lectures: Tuesdays & Thursdays, 11:00 am - 12:20 pm, CHEM D200

Grades

Quiz	10%
Midterm Exam	30%
Final Exam	40%
<u>Research Project</u>	<u>20%</u>
total	100%

In order to reduce grade inflation and maintain equity across multiple course sections, all psychology courses are required to comply with departmental norms regarding grade distributions. According to departmental norms, the mean grade in a 300-level class is 70 for a good class, 68 for an average class, and 66 for a weak class, with a standard deviation of 13. **Scaling** is likely to be used in order to comply with these norms; grades may be scaled up or down as necessary by the professor or department at the end of the course.

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Readings and Lectures: Regular attendance at lectures is expected. You are responsible for reading the material in the textbook BEFORE the lecture in the order in which it appears on the schedule. Some of the material covered in class is not in the textbook, and some of the material in the textbook will not be covered in class. When it comes to the exams, you are responsible for ALL material covered in class and ALL material in the textbook including figures, definitions, boxes and summaries.

Instructional Objectives: Statements indicating what you should get out of each lecture and the readings will be included in the outline for each lecture (available on our *Canvas* Modules page). These objectives are to guide your studying and to make it unnecessary for you to ask us what you need to know for the exams. Many students choose to treat each objective as an exam question and attempt to answer it. We recommend this method of studying, but we do not have a list of correct answers.

Tests: The quiz will consist of multiple-choice questions. Each exam will consist of multiple-choice and short-answer questions. The midterm exam will include material covered on the quiz. The final exam will NOT be cumulative and will include material covered after the midterm exam. Tests will not be returned to students, but they may be viewed during the TAs' office hours. Grades will be posted on *Canvas* as soon as they are available. Quiz and midterm exam answers will be reviewed in class.

Missed Tests: Absences must be approved by Dr. Giaschi in advance. Students will **not** ordinarily be excused for work-, travel-, childcare-, family emergency- or sports-related activities. However, students should not write tests when they are seriously ill. If a medical emergency arises, you must contact Dr. Giaschi **BEFORE** the test (**604-875-2345x7807**), and obtain a Statement of Illness form from a physician indicating that you were unable to attend school on the day of the test. A make-up test will be scheduled when you are well again. If you show up after a test and inform us that you were sick, you will not receive credit. If you write a test and then blame poor performance on illness or anxiety, your grade will not be changed. Supplemental tests to improve your grade are not offered in the Department of Psychology.

Human Subject Pool (HSP) Participation: To learn more about psychology and earn up to 3 bonus points toward your course grade, you may participate in research projects between January 2 and April 4. The projects are posted at ubc-psych.sona-systems.com. Please register in this online system by the end of January. You can earn your first ½ point by completing a pretesting survey that will make you eligible for a wider variety of studies. In a given term, you may earn no more than 1 point for online studies (not including pretesting). As an alternative to participating in studies, you may complete a library writing project which consists of reading and summarizing a research article from the journal *Psychological Science*. Each written summary counts as 1 hour of participation. More information on both research participation and the library option can be found at psych.ubc.ca/undergraduate/human-subject-pool/. **Be sure to check your recorded bonus points for this course at the end of the term.** These points will be added to your final course grade, after any scaling that may be required.

Accommodations: Please let Dr. Giaschi know as soon as possible if you will be seeking accommodation through The Centre for Accessibility or if you have religious obligations that will conflict with this course in any way. Students who plan to be absent for varsity athletics, family obligations or similar commitments cannot assume they will be accommodated and should discuss their commitments with Dr. Giaschi before the withdrawal date (January 14).

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Psychology Department's Position on Academic Misconduct: The UBC Calendar defines cheating as: “dishonest or attempted dishonest conduct at tests or examinations, in which use is made of books, notes, diagrams or other aids excluded by the examiner. It includes communicating with others, copying from the work of others and purposely exposing information to other students who are taking the test or exam.” Plagiarism is: “the presentation or submission of the work of another person, without citation or credits, as the student’s own work”.

Cheating, plagiarism, and other forms of academic misconduct are very serious concerns of the University, and the Department of Psychology has taken steps to alleviate them. In the first place, the Department has implemented software that can reliably detect cheating on multiple-choice exams by analyzing the patterns of students’ responses. In addition, the Department subscribes to *TurnItIn*--a service designed to detect and deter plagiarism. All materials (research proposals/reports) that students submit for grading will be scanned and compared to over 4.5 billion pages of content located on the Internet or in TurnItIn’s own proprietary databases. The results of these comparisons are compiled into customized “Originality Reports” containing several, sensitive measures of plagiarism; instructors receive copies of these reports for every student in their class. In all cases of suspected academic misconduct, the parties involved will be pursued to the fullest extent dictated by the guidelines of the University. Strong evidence of cheating or plagiarism may result in a zero credit for the work in question. According to the University Act (section 61), the President of UBC has the right to impose harsher penalties including (but not limited to) a failing grade for the course, suspension from the University, cancellation of scholarships, or a notation added to a student’s transcript. *All graded work in this course, unless otherwise specified, is to be original work done independently by individuals.*

For details on pertinent University policies and procedures, please see the Campus-wide Policies and Regulations section of the UBC Calendar (<http://www.calendar.ubc.ca/vancouver/index.cfm?tree=3.0.0.0>).

Why take this course?

In addition to learning a huge amount about perception, you will learn to:

- collect information supported by evidence, and analyze data
- recognize when previous knowledge has to be re-evaluated as a result of new discoveries
- fit newly gained information into a growing framework of understanding
- communicate effectively in writing and orally in a manner acceptable to the audience
- collaborate effectively with other contributing participants in group work
- manage projects and course work together with other commitments

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Lecture Schedule and Assigned Readings

Date	Topic	Reading
1. Jan 3	Introduction; Complex sounds	Chpt 10 (p 330-344)
2. 8	Music perception	Chpt 11 (p 348-357)
3. 10	Speech production	Chpt 11 (p 357-363)
4. 15	Speech perception <i>sign up for research group/proposal topic</i>	Chpt 11 (p 363-376; web essay 11.1)
5. 17	quiz (30 minutes); Object perception: middle vision	Jan 3-15 material Chpt 4 (p 106-124)
6. 22	Object perception: recognition	Chpt 4 (p 124-131; web essay 4.1)
7. 24	Object perception: faces, physiology	Chpt 4 (p 98-106,131-132;web essay 4.4)
8. 29	Colour vision: stimuli, trichromacy <i>individual proposal due</i>	Chpt 5 (p 136-151)
9. 31	Colour vision: opponency, deficiency	Chpt 5 (p 151-159; web essay 5.1, 5.3)
10. Feb 5	Colour vision: cortical processing	Chpt 5 (p 159-172; web essay 5.4)
11. 7	Depth perception: cues	Chpt 6 (p 174-194)
12	snow day – midterm cancelled	
14	<i>group experiment planning</i>	
19 & 21	Midterm Break	
26	Midterm Exam	Jan 3 – Feb 7 material
28	<i>group data analysis and presentation preparation</i>	
12. Mar 5	Depth perception: stereopsis	Chpt 6 (p 194-204)
13. 7	Depth perception: development, disorders	Chpt 6 (p 208-215)
14. 12	Depth perception: size constancy <i>group presentations start</i>	Chpt 6 (p 204-208; web essay 6.4)
15. 14	Motion perception: types, computation	Chpt 8 (p 256-264)
16. 19	Motion perception: physiology	Chpt 8 (p 264-268; web essay 8.2)
17. 21	Motion perception: uses, disorders, eye movements	Chpt 8 (p 269-279)
18. 26	Attention: space	Chpt 7 (p.218-230; web essay 7.3)
19. 28	Attention: time, physiology	Chpt 7 (p 230-237; web essay 7.1)
20. Apr 2	Attention: disorders, scenes	Chpt 7 (p 237-253); Chpt 10 (p 344-346)
21. 4	Haptic perception <i>research reports due</i>	Chpt 13 (p 446-459)
8-26	Final Exam (2 hours)	Mar 5 - Apr 4 material

web essays and textbook demonstrations can be found through Canvas (Modules page)
or at <https://oup-arc.com/access/sensation-and-perception-5e-student-resources>

PSYCHOLOGY 368(001): Perceptual Processing Guidelines for Research Projects

Students will need the PsyCog CD-ROM for this research project.

1. choose a research group:

This will be done through *Canvas* (“People” on course navigation menu) starting **Tuesday, January 15.**

Students will assign themselves to groups (6 students/ group) according to the PsyCog topics listed below. The purpose of signing up is to give you a topic on which to write your proposal. This is also the group you will work with for the experiments.

Topics:	Colour Perception:	A2.1a <i>Afterimage</i> - groups 1 and 2 (presentation Mar 12)
		A3.1a <i>Brightness adjustment</i> - groups 3 and 4 (presentation Mar 14)
	Size & Orientation:	A6.1 <i>Muller-Lyer</i> - groups 5 and 6 (presentation Mar 19)
		A6.3 <i>Ponzo</i> – groups 7 and 8 (presentation Mar 21)
	Motion:	A4.1a <i>Aftereffect experiment</i> - groups 9 and 10 (presentation Mar 26)
	Attention:	D2.1 <i>Change blindness</i> – groups 11 and 12 (presentation Mar 28)

2. propose an experiment:

This is a non-collaborative document (doc, docx, pdf) to be uploaded to *Canvas* (“Assignments” on course navigation menu) on **Tuesday, January 29** before class.

Each student will propose a specific experiment within their group topic using the parameters/conditions/suggestions available on the PsyCog CD-ROM. The proposal should include: 1. a *description* of the phenomenon to be studied (what is the stimulus and how is it perceived incorrectly?), with reference to a *classic journal article* (first report or highly cited); 2. a typical *explanation* for the phenomenon (i.e. theory about why our perception of this stimulus is incorrect), with reference to a *journal article* that is not cited in the textbook or PsyCog; 3. the *research question* or *hypothesis* you propose to explore (should test the typical explanation or an alternative theory, and be clearly related to the explanation). This must involve more than just replicating the classic finding, and should compare the effect of 2 conditions on the phenomenon (e.g. line length 1 vs. line length 2, or duration 1 vs. duration 2; how will each condition affect the phenomenon and why?); 4. a description of the *specific parameters* (including viewing distance) and procedures to be used in the experiment (this will vary by topic; collect 25 trials per condition [except *Change blindness*]); 5. a brief statement about data analysis (e.g. means for each condition will be compared with a t-test [within-subjects (all participants do all conditions) or between-subjects design (different participants do each condition)]). Include enough detail for the TA to conduct your experiment; 7. full reference citation for each journal article (authors, year, title, journal, volume, page numbers; cite sources from which you obtained non-English or really old references).

There is no specific format to follow; the limit is 5 double-spaced pages (12-pt font, 2 cm margins). You may have difficulty finding suitable references if you restrict your search to Google/Yahoo/MSN or even Google Scholar. You will have more success with the indexes and databases available through the Library’s website at www.library.ubc.ca. *Be sure to include your group # on the title page.*

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Guidelines for Research Projects, continued

3. plan a group experiment:

This will be done during class on **Thursday, February 14**; a group proposal (doc, docx, pdf) is to be uploaded to Canvas (“Assignments” on course navigation menu) by the end of class.

Each group will design a single experiment on their assigned topic. You may choose one of the individual proposals from your group members (marks and feedback from a TA will be available before class), or you may design a new experiment. The experiment should assess (support or question) one explanation (typical or less common) for your phenomenon.

Your group proposal should follow the content instructions for the individual proposals. Dr. Giaschi will send an email to approve or suggest revisions to your experiment.

4. collect data:

This will be done outside of class time **before Thursday, February 28**; individual data (xls, xlsx) are to be uploaded to Canvas (“Assignments” on course navigation menu) before class.

Each group member will collect data on themselves, and calculate an average for each condition. Your raw data (trial by trial) and average for each condition must be entered in an Excel file. Do not run additional subjects outside of your group.

5. analyze your data and prepare slides:

This will be done during class on **Thursday, February 28**; a group presentation outline (doc, docx, pdf) is to be uploaded to Canvas (“Assignments” on course navigation menu) at the end of class.

Each group will combine their individual data, perform t-tests with templates provided on *Canvas* and prepare an oral presentation. The presentation outline should describe: some background on your topic, your research question/hypothesis and the rationale for it, your stimuli, how the data were collected and analyzed, the results you obtained, your interpretation of the results, problems encountered or things you would do differently, suggestions for future experiments to address any unanswered questions, as well as a list of each student’s role in the preparation and/or delivery of the presentation.

6. present your project to the class:

Two groups will present each class (one at the beginning; one at the end), starting with groups 1 and 2 on **Tuesday, March 12**.

Each group will have **7 minutes** for their presentation. Each group member must be involved in either the preparation or oral delivery of the presentation. Be sure to: give some background on your topic, state your research question/hypothesis, describe the stimuli, task, data collection and analysis, show your results (table or graph), interpret your results, discuss problems encountered or things you would do differently, suggest future experiments. All group members are expected to attend class on their presentation date.

PSYCHOLOGY 368(001): Perceptual Processing Guidelines for Research Projects, continued

6. *present your project to the class, continued:*

A grade will be assigned based on timing, creativity, preparation and organization, completeness, clarity, reference to class material, inclusion of relevant references and ability to answer questions. *A list of each group member's role in the presentation must be signed and handed in at the end of the presentation. Please email a copy of your slides to Dr. Giaschi for grading either just before or just after the presentation.*

7. *prepare a research report:*

This is a document to be uploaded to Canvas ("Assignments" on course navigation menu) on **Thursday, April 4** before class.

Each student must hand in their own unique report based on the group data. Organize your report with clearly labeled Introduction (background on topic [include references], research question/hypothesis and rationale [should follow clearly from background]; Methods (stimuli, task, conditions, what you measured [dependent variable], how you measured it, what went into t-test); Results (table showing individual subject averages for each condition, t statistic, p value, unusual data manipulations, significant difference?); Discussion (answer research question, discuss results relative to existing literature [include references], problems/changes, future study; References (authors, year, title, journal, volume, page numbers; do not list unless cited).

Be sure to include your group # on the title page. The report should be no longer than 5 double-spaced pages (12-pt font, 2 cm margins).

Calculation of Research Project Grades

individual proposal	2.5%
group proposal	2.5%
group class presentation	5%
<u>individual research report</u>	<u>10%</u>
total	20% of final grade

- A penalty of 10% per day will be applied to late assignments. Assignments received more than 1 week after the due date will not be marked. Students may be asked to submit their assignment to *TurnItIn* to check for plagiarism.
- Each student is expected to attend the classes in which the planning, analysis and group presentation take place. Students who do not contribute to or miss a particular component will lose 2.5% of their final grade unless they have a documented medical excuse. Students will be asked to rate the contributions of their group members after the individual reports have been handed in. Grades may be adjusted for students whose group indicates that their contribution was minimal.
- Each member of a group will receive the group grade, unless they have failed to contribute to the proposal or presentation (as indicated by absence or a low score on the peer evaluations).