

## COURSE OUTLINE

### PSYCHOLOGY 368 (001): Perceptual Processing Term 2, 2014W

**Instructor:** Dr. Debbie Giaschi    *office:* Kenny 3531    *phone:* 875-2345x7807  
*e-mail:* [giaschi@mail.ubc.ca](mailto:giaschi@mail.ubc.ca)

**Teaching Assistants:**

**Kimberly Meier**  
*office:* Kenny 3504

**Meagan Auger**  
*office:* Kenny 3512

**Textbook:** *Sensation & Perception, 3rd edition* (2012) by J. Wolfe, K. Kluender, D. Levi et al.  
(1 copy on 2-hour reserve in Koerner Library; other editions are not suitable)

**Website:** [connect.ubc.ca](http://connect.ubc.ca) (course syllabus, instructional objectives, lecture outlines,  
lecture slides, discussion forum, research group sign-up and grades)

**CD-ROM:** PsyCog: Explorations in Perception and Cognition (2011) by Wyttenbach

**Lectures:** Tuesdays & Thursdays, 11:00 am - 12:20 pm, Buchanan A104

**Office Hours:** Meagan – Tuesdays, 2:00 - 3:00 pm

Kim – Thursdays, 9:30 - 10:30 am

Dr. G. – Tuesdays, 12:45 – 1:45 pm

*We are also easily reached through the discussion forum for this course on Connect. We will check this forum regularly; all questions about lecture material, assignments and exams should be posted here. Alternatively, you can reach us by e-mail at [psyc368ubc@gmail.com](mailto:psyc368ubc@gmail.com).*

#### Grades

Midterm Exam	35%
Final Exam	45%
<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.*

**Students should retain a copy of all submitted assignments because we will need to keep the marked assignments.**

## PSYCHOLOGY 368(001): Perceptual Processing

**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 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 *Connect* website). 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.

**Exams:** Each of the exams will consist of multiple choice and short answer questions. The exams are not cumulative. Each exam will cover only material that you have not been tested on previously. Exams will not be returned to students, although they may be viewed during the TAs' office hours. Grades will be posted on *Connect* as soon as they are available. Midterm exam answers will be reviewed in class.

**Missed Exams:** Students will **not** ordinarily be excused for work-, travel-, childcare-, family emergency- or sports-related activities. However, students should not write exams when they are seriously ill. If a medical emergency arises, you must contact Dr. Giaschi **BEFORE** the exam (**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 exam. A make-up exam will be scheduled when you are well again. If you show up after an exam and inform us that you were sick, you will not receive credit. If you write an exam and then blame poor performance on illness or anxiety, your grade will not be changed. Supplemental exams to improve your grade are not offered in the Department of Psychology.

**Human Subject Pool 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 5 and April 10. The projects are posted at [hsp.psych.ubc.ca/](http://hsp.psych.ubc.ca/). 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 read and summarize a research article; each written summary counts as 1 hour of participation. You are to submit your article and your summary to turnitin.com. If you don't have a turnitin account already (from a previous course), you will need to create a user account in Turnitin. For the library assignment, **the class ID is 9183443, class name "Psychology HSP (Winter 2015)", and password "research"**. See [www.turnitin.com](http://www.turnitin.com), and click on the "Training" link at the top of the page for detailed instructions on how to submit papers to Turnitin. **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. More information can be found at [psych.ubc.ca/internal/human-subject-pool/](http://psych.ubc.ca/internal/human-subject-pool/)

**Accommodations:** Please let Dr. Giaschi know as soon as possible if you will be seeking accommodation through Access and Diversity 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 19).

**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 (term papers, lab reports, etc.) 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 Academic Regulations section of the UBC Calendar ([students.ubc.ca/calendar](http://students.ubc.ca/calendar)).

### ***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

# PSYCHOLOGY 368(001): Perceptual Processing

## Lecture Schedule and Assigned Readings

Date	Topic	Reading		
Jan	6	Introduction; Complex sounds	Chpt 10 (p. 286-301)	
	8	Music perception	Chpt 11 (p. 303-309)	
	13	Speech production	Chpt 11 (p. 309-319)	
	15	Speech perception	Chpt 11 (p. 319-327; web essay 11.1)	
	20	Object perception: middle vision <i>sign up for research group/proposal topic</i>	Chpt 4 (p. 91-106)	
	22	Object perception: recognition	Chpt 4 (p. 106-112; web essay 4.1)	
	27	Object perception: faces, physiology	Chpt 4 (p. 85-91,112-115;web essay 4.3)	
	29	Colour vision: detection, discrimination <i>individual proposal due</i>	Chpt 5 (p. 117-128)	
	Feb	3	Colour vision: appearance	Chpt 5 (p. 128-134; web essay 5.1)
		5	Colour vision: deficiency, constancy	Chpt 5 (p. 134-147; web essay 5.2, 5.3)
10		<i>group experiment planning</i>		
12		<b>***Midterm Exam***</b>	<b>(Chpts 4, 5, 10[286-301], 11+ web essays)</b>	
17&19		Midterm Break		
24		<i>group data analysis and presentation preparation</i>		
Mar	26	Depth perception: monocular	Chpt 6 (p. 149-162)	
	3	Depth perception: binocular	Chpt 6 (p. 162-173)	
	5	Depth perception: physiology, development <i>group presentations start</i>	Chpt 6 (p. 173-174, 180-185)	
	10	Depth perception: disorders, size constancy	Chpt 6 (p. 174-180; web essay 6.3)	
	12	Motion perception: computation	Chpt 8 (p. 221-227)	
	17	Motion perception: physiology	Chpt 8 (p. 227-231; web essay 8.2)	
	19	Motion perception: uses, disorders	Chpt 8 (p. 231-234; 239-241)	
	24	Eye Movements	Chpt 8 (p. 235-239)	
	26	Attention: space	Chpt 7 (p. 187-197; web essay 7.2)	
	31	Attention: time, physiology, disorders	Chpt 7 (p. 197-206)	
	Apr	2	Attention: scenes	Chpt 7 (p. 206-218)
7		Spatial orientation perception	Chpt. 12 (p. 344-361)	
9		Haptic perception <i>research reports due</i>	Chpt 13 (p. 380-396)	
TBA	<b>*** Final Exam (2 hours)***</b>	<b>(Chpts 6, 7, 8, 12[344-361], 13[380-396] + web essays)</b>		

*web essays and textbook demonstrations can be found through Connect or at sites.sinauer.com/wolfe3e/home/startF.htm*

## 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 *Connect* (“Research Groups” on sidebar) starting **Tuesday January 20**

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.

<b>Topics:</b>	<b>Colour Perception:</b>	A2.1a <i>Afterimage</i> - groups 1 and 2 ( <i>presentation Mar 5</i> )
		A2.3 <i>McCullough</i> - groups 3 and 4 ( <i>presentation Mar 10</i> )
	<b>Size &amp; Orientation:</b>	A6.1 <i>Muller-Lyer</i> - groups 5 and 6 ( <i>presentation Mar 12</i> )
		A6.3 <i>Ponzo</i> – groups 7 and 8 ( <i>presentation Mar 17</i> )
		A6.6 <i>Ebbinghaus-Delboeuf</i> - groups 9 and 10 ( <i>presentation Mar 19</i> )
	<b>Motion:</b>	A4.1a <i>Aftereffect experiment</i> - groups 11 and 12 ( <i>presentation Mar 24</i> )
	<b>Attention:</b>	D2.1 <i>Change blindness</i> – groups 13 and 14 ( <i>presentation Mar 26</i> )

### 2. *propose an experiment:*

This is a typed proposal due **Thursday January 29** at the beginning of 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, with reference to a *classic journal article* (first report or highly cited); 2. a typical *explanation* for the phenomenon, 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. This must involve more than just replicating the classic finding, and should include at least 2 conditions (e.g. effect of line length 1 vs. line length 2; effect of duration 1 vs. duration 2); 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*]), with enough detail for the TA to conduct your experiment.

There is no specific format to follow; the limit is 5 pages. You may have difficulty finding suitable references if you restrict your search to Google/Yahoo/MSN or even Google Scholar. Try instead the indexes and databases available through the Library’s website at [www.library.ubc.ca](http://www.library.ubc.ca). Be sure to include your name, student # and group # on the title page.

### 3. *plan a group experiment:*

This will be done during class on **Tuesday February 10**.

Each group will design a single experiment on their assigned topic. You may choose one of the individual proposals from your group members (which will be returned to you with feedback for use during this class), or you may design a new experiment. The experiment should assess (support or question) one explanation (typical or less common) for your phenomenon. *A group proposal is due at the end of class either by uploading to Connect or submitting a hand-written hard copy.* Follow the content instructions for the individual proposals. You will be contacted by e-mail if we anticipate any problems with your design.

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

### 4. *collect data:*

This will be done outside of class time **before Tuesday February 24**.

Each group member will collect data on themselves, and calculate an average for each condition. These data must be uploaded to your *Connect Group File Exchange* before class. Do not run additional subjects outside of your group.

**5. analyze your data and prepare slides:**

This will be done during class on **Tuesday February 24**.

Each group will combine their individual data, perform t-tests with templates provided on *Connect* and prepare an oral presentation. *Each group must hand in a presentation outline and a list of each student's role in the preparation and/or delivery of the presentation, either by uploading to Connect or submitting a hand-written hard copy at the end of class.* 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.

**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 **Thursday March 5**.

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, describe the stimuli, task, data collection and analysis, show your results, 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.

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 after the presentation.*

**7. prepare a research report:**

This is a typed report, due **Thursday April 9** at the beginning of 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 name, student # and group # on the title page.* The report should be no longer than 5 double-spaced pages (12 pt font).

*Calculation of Research Project Grades*

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

- 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 provide an electronic version of their assignment to be submitted 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).