

COURSE SYLLABUS

PSYCHOLOGY 368(001): Perceptual Processing, Term 2 2020W

Calendar Description: Perceptual phenomena and their underlying brain mechanisms
[3 credits]

Prerequisites: Psyc 367

Contacts

Instructor: Professor Debbie Giaschi email: giaschi@mail.ubc.ca
virtual contact hours: Tues. & Thurs. 12:25 – 1:00 pm ([Zoom through Canvas](#))

Teaching Assistants: email virtual contact hours
Akosua Asare akosua.asare@alumni.ubc.ca Wed. 3 – 4 pm ([Zoom through Canvas](#))
Morteza Mousavi mousavi7@mail.ubc.ca Fri. 9 -10 am ([Zoom through Canvas](#))

We are also easily reached through **Canvas** using **Piazza**. **All questions** about lecture material, readings 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 (but not anonymously) for only Dr. Giaschi or the TAs to see. Please **sign up** at piazza.com/ubc.ca/winterterm22021/psyc3680012020w

Learning Activities and Materials

Lectures: Tuesdays & Thursdays, 11:00 am - 12:20 pm on **Canvas** ([Collaborate Ultra](#))

Textbook: *Sensation & Perception, 5th edition* (2018) by J. Wolfe, K. Kluender, D. Levi et al.

Note: this is the same book that was used in Psyc 367 in 2018, 2019 and 2020

(hardcover new ~\$240 or 6-month ebook rental ~\$80

shop.bookstore.ubc.ca/course/builder.aspx; 1st [2006], 2nd [2009], 3rd [2012] 4th [2015],
and international editions are **not** suitable)

Learning Management System: canvas.ubc.ca

(downloadable files [course syllabus, lecture outlines + objectives, lecture slides]; [Collaborate Ultra](#) [live & recorded lectures]; textbook demonstrations; library [research articles, textbook excerpts]; [Piazza](#) [peer & instructor discussions]; exams; [Zoom](#) [exam invigilation, contact hours]; grades)

Assessment of Learning

Midterm Exam 1 (Feb 9)	25%
Midterm Exam 2 (Mar 16)	25%
Final Exam (Apr 18-29)	25%
Research Project Paper (Apr 13)	20%
<u>Piazza participation</u>	<u>5%</u>
Total	100%
Human Subject Pool participation	3%

Note: supplemental exams to improve your grade are not offered in any course in the Faculty of Arts.

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Course Details

Course Learning Outcomes: This course will provide you detailed knowledge about

- object perception;
- colour vision;
- depth perception;
- motion perception;
- spatial orientation perception;
- attention;
- haptic perception;
- hearing complex sounds;
- speech and music perception;

through lectures, readings, in-class demonstrations, and a research project.

Readings and Lectures: All lectures will be given live at the scheduled class time on **Canvas (Collaborate Ultra)** and also recorded for later viewing on **Canvas (Collaborate Ultra)**. A version of the lecture slides will be available on **Canvas (Modules)** the evening before each lecture to facilitate your preparation and note taking, but these slides may not be identical to the ones shown on **Canvas (Collaborate Ultra)**. In addition, some of the material covered in lectures is not in the textbook, and some of the material in the textbook will not be covered in lectures (a scanned copy of these parts of the textbook is available through **Library Online Course Reserves**). It is recommended that you both attend/watch lectures and read ahead in the textbook (see Schedule on page 4). When it comes to the exams, you are responsible for ALL material covered in lectures and ALL material assigned from the textbook including figures, definitions, boxes and summaries. The textbook is required reading.

Lecture Objectives: Statements indicating what you should learn in the lectures and readings will be included on the first slide for each lecture and in the lecture outline, which will be available on **Canvas (Modules)** the evening before. 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: The exams will be noncumulative (see page 4 for dates and material covered), and will be done on **Canvas (Quizzes)** with Zoom invigilation. Cameras will be required to remain on throughout each exam, for the purpose of identifying students and maintaining a high level of academic integrity. The midterm exams will occur during the scheduled class time. Students outside North American time zones should contact Dr. Giaschi to discuss alternatives. The final exam will occur as scheduled during the formal exam period. Each exam will be split into 2 parts - a multiple-choice/multiple-answer section followed by a short-answer section. **Students are expected to use the terminology introduced in this course in their short answers. Only minor deviations from correct spelling will be accepted.**

Marks will be posted on **Canvas (Grades)** as soon as they are available. Correct answers will be reviewed during live lectures. Marked exams will not be viewable by students, but incorrect answers may be discussed with TAs during virtual contact hours.

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Course Details continued

Research projects: See pages 7-8 for a general overview of the research project to be conducted outside of class time.

Piazza participation: We will use *Piazza* for all discussion related to lectures, exams, research projects and assigned readings. The following types of public contributions (may be anonymous to classmates) will count towards your participation mark: questions about lecture or reading content that include an attempt at an answer, answers to questions posted by other students that include more than just a “correct/incorrect” response or endorsement, responses to additional posts by the teaching team that are designed to stimulate discussion. Questions about organizational details that are available in the course syllabus will not be counted.

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 11 and April 14. The projects are posted at ubc-psych.sona-systems.com. You can earn your first ½ point by completing a pretesting survey that will make you eligible for a wider variety of studies. 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, and is due no later than April 14 using Turnitin (class ID is 27495023, class name is “HSP 2020-21 (Winter Term 2)”, password is “Research”). More information on both research participation and the library option can be found at psych.ubc.ca/undergraduate/opportunities/human-subject-pool/.

Be sure to check your recorded bonus points for this course before the online system closes at the end of the term. These points will be added to your final course grade, after any scaling that may be required.

Accommodations: If you will be seeking accommodation through the *Centre for Accessibility*, please provide your accommodation letter to Dr. Giaschi as soon as possible, and before the first exam. Exams for most students receiving accommodation will be invigilated by Centre for Accessibility staff. If you anticipate a *religious or cultural observance* will conflict with an exam, at least 2 weeks advance notice must be provided to Dr. Giaschi in writing. If you have *conflicting responsibilities* that will interfere with your attendance in this course, please discuss this with Dr. Giaschi before the withdrawal date (Jan 22); documentation may be requested.

Academic Concession: If you need to miss an exam due to conflicting responsibilities, medical circumstances or compassionate grounds (refer to UBC calendar entry: www.calendar.ubc.ca/vancouver/index.cfm?tree=3,329,0,0), you must **let Dr. Giaschi know** and submit a Faculty-specific request for academic concession as follows:

Arts 1st request (to Dr. Giaschi) - [Student-Self-Declaration-Form-1.6-Arts.pdf](#) 

Arts 2nd request (online) - students.air.arts.ubc.ca/academic-concession-form/

Science (to Dr. G.) - [Template - In-Term Academic Concessions Self Declaration, 2019.pdf](#) 

Kinesiology (online) - kin.educ.ubc.ca/undergraduate/bkin/academic-concession/concession-itw/

There will be no make-up midterm exams. If concession is granted, that 25% of your final grade will be equally distributed across the other exams. If you receive concession for both midterm exams, your final exam will cover the entire course. **If you miss the final exam, you must apply for deferred standing in the course through your Faculty Advising Office;** a make-up exam must be taken. Concession will **not** be granted for a test that you have already taken or conflicts with other online courses. Please carefully assess your ability to complete and succeed in online courses prior to the drop deadlines (*Jan 22 without W, Mar 12 with W*).

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Lecture Schedule and Assigned Readings

Date	Topic	Reading
1. Jan 12	Intro; Object perception: middle vision	Chpt 4 (p 106-116)
2. 14	Object perception: recognition	Chpt 4 (p 116-130; web essay 4.1)
3. 19	Object perception: faces, physiology	Chpt 4 (p 98-106,130-132;web essay 4.4)
4. 21	Colour vision: stimuli, trichromacy	Chpt 5 (p 136-151)
5. 26	Colour vision: opponency, deficiency	Chpt 5 (p 151-159; web essay 5.1)
6. 28	Colour vision: cortical processing	Chpt 5 (p 159-172; web essay 5.3, 5.4)
7. Feb 2	Depth perception: cues	Chpt 6 (p 174-190)
8. 4	Depth perception: binocular vision	Chpt 6 (p 190-204)
9. 9	Midterm Exam 1 (no lecture)	Jan 12 – Feb 4 material
9. 11	Depth perception: brain,development,disorders	Chpt 6 (p 208-215)
16 & 18	Midterm Break	
10. 23	Depth perception: size constancy	Chpt 6 (p 204-208; web essay 6.4)
11. 25	Motion perception: types, computation	Chpt 8 (p 256-264)
12. Mar 2	Motion perception: brain	Chpt 8 (p 264-268; web essay 8.2)
13. 4	Motion perception: uses,disorders,development	Chpt 8 (p 269-276)
14. 9	Motion perception: eye & head movements	Chpt 8 (p 276-279)
15. 11	Spatial Orientation Perception	Chpt 12 (p 398-419)
16. 16	Midterm Exam 2 (no lecture)	Feb 11 – Mar 11 material
16. 18	Attention: space	Chpt 7 (p 218-230; web essay 7.3)
17. 23	Attention: time, brain	Chpt 7 (p 230-237)
18. 25	Attention: disorders, scenes	Chpt 7 (p 237-253; web essay 7.1)
19. 30	Haptic perception	Chpt 13 (p 446-459)
20. Apr 1	Perception of complex sounds <i>research project data due</i>	Chpt 10 (p 330-346)
21. 6	Music perception	Chpt 11 (p 348-357)
22. 8	Speech production	Chpt 11 (p 357-363)
23. 13	Speech perception <i>research project paper due</i>	Chpt 11 (p 363-376; web essay 11.1)
18-29	Final Exam (2 hours)	Mar 18 - Apr 13 material

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

Photographing, screenshotting, video or audio recording of lectures or exams is not permitted at any time.

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Departmental and University Policies

Scaling of grades: In order to reduce grade inflation and maintain equity across multiple course sections, all psychology classes are required to comply with departmental norms regarding grade distributions. **However, in the spirit of flexibility and compassion in light of COVID-19 and the associated pivoting to online teaching, those departmental norms have been adjusted upwards by 5% for only 2020W.** According to these adjusted norms, the mean grade in a 300-level class is 75 for a good class, 73 for an average class, and 71 for a weak class, with a standard deviation of 13. Scaling may 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. Grades are not official until they appear on a student's academic record. You will receive both a percent and a letter grade for this course. At UBC, they convert according to the key below:

A+	90-100%	B+	76-79%	C+	64-67%	D	50-54%
A	85-89%	B	72-75%	C	60-63%	F	0-49%
A-	80-84%	B-	68-71%	C-	55-59%		

Student support: UBC provides resources to support student learning and to maintain healthy lifestyles but recognizes that sometimes crises arise and so there are additional resources to access including those for survivors of sexual violence. UBC values respect for the person and ideas of all members of the academic community. Harassment, discrimination and racism are not tolerated, nor is suppression of academic freedom. UBC provides appropriate accommodation for students with disabilities and for religious and cultural observances. UBC values academic honesty and students are expected to acknowledge the ideas generated by others and to uphold the highest academic standards in all of their actions.

Details of the policies and how to access support are available on senate.ubc.ca/policies-resources-support-student-success. UBC's evolving anti-racism work is described at equity.ubc.ca/together-against-racism/

Online learning for international students: During this pandemic, the shift to online learning has greatly altered teaching and studying at UBC, including changes to health and safety considerations. Keep in mind that some UBC courses might cover topics that are censored or considered illegal by non-Canadian governments. This may include, but is not limited to, human rights, representative government, defamation, obscenity, gender or sexuality, and historical or current geopolitical controversies. If you are a student living abroad, you will be subject to the laws of your local jurisdiction, and your local authorities might limit your access to course material or take punitive action against you. UBC is strongly committed to academic freedom, but has no control over foreign authorities (please visit www.calendar.ubc.ca/vancouver/index.cfm?tree=3,33,86,0 for an articulation of the values of the University conveyed in the Senate Statement on Academic Freedom). Thus, we recognize that students will have legitimate reason to exercise caution in studying certain subjects. If you have concerns regarding your personal situation, consider postponing taking a course with manifest risks, until you are back on campus or reach out to your academic advisor to find substitute courses. For further information and support, please visit: academic.ubc.ca/support-resources/freedom-expression

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Academic Integrity

As part of the academic community, you are expected to act honestly and ethically in all of your academic activities, just like the rest of us. In Psyc 368 that means doing your own work, avoiding collusion, not using aids that have been excluded by the examiner, not sharing material provided for you to use in this course, and acknowledging the ideas of others (more details on each of these below).

Make sure you understand UBC's definitions of [academic misconduct](#), [consequences](#), as well as expectations about [academic honesty](#). *Please ask if you're not sure how these apply to our course.* While you're checking out the calendar, you should also remind yourself about the "[Student Declaration and Responsibility](#)" statement you agreed to when you registered.

DO your own work. All individual work that you submit should be completed by you and submitted by you. All assessments are designed to help you learn about Perceptual Processing. It is *unacceptable* to use an editor (paid or unpaid) to revise, correct, or alter your work, because your submission is no longer your own work. It is *unacceptable* to misrepresent your identity by using someone else to complete any portion of this course (e.g., comment on Piazza, complete an exam question). It is *unacceptable* to buy/sell/swap/share exam questions or answers on any platform. It is *unacceptable* to help someone else cheat.

AVOID collusion. Collusion is a form of academic integrity violation that involves working too closely together without authorization. The resulting submitted work gains unfair advantage over other students because it is a measurement of the groups' understanding rather than the individual's understanding. Studying together does not count as collusion, but working together to write answers or answering someone else's question in a chat app, on either open- or closed-book exam, is considered to be collusion. You are expected to take exams and complete your research project on your own without any type of assistance.

DO NOT use aids that have been excluded by the examiner. Unless otherwise explicitly specified, all exams in Psyc 368 will be closed book. This means you may not use notes, lecture slides, books, calculators, websites, chat rooms etc. to look up answers to exam questions. Please be aware that student activity captured by **Canvas** during exams can be used to detect many instances of cheating.

DO NOT share materials provided for you to use in this course. We are working hard to provide all the materials you need to succeed in this course. In return, please respect our work. All exam questions and answers, Piazza posts, announcements, lecture slides and outlines, audio/video recordings, Canvas modules, and any other materials provided to you by Dr. Giaschi and the TAs or in the textbook and other readings are for use in this course by students currently enrolled in PSYC 368. It is *unacceptable* to share any of these materials beyond our course, including by posting on file-sharing websites (e.g., CourseHero, GoogleDocs). It is *unacceptable* to copy and paste sentences from the textbook (e.g., definitions) into for-profit software (e.g., Quizlet) for use in studying. Please respect our intellectual property, and follow copyright law.

DO acknowledge the ideas of others and avoid plagiarism. Scholars build on the work of others, and give credit accordingly—this is a quality of strong academic writing. As an example, most of these academic integrity principles were adapted from material prepared by Dr. Catherine Rawn. In Psyc 368, formal citing of sources will be required for your research project paper. Do not copy and paste text from other sources, including other people's work.

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General Overview of Research Projects

Students will use the web-based PsyToolkit software for this research project <https://www.psychtoolkit.org/>. The project will be conducted outside of class time.

1. choose a research topic:

Each student will choose 1 of the following 4 topics:

- global vs. local object processing: exploring the global precedence effect using Navon letters (*Navon task*)
- attending in space: exploring covert orienting of attention and inhibition of return using a cost-benefit experiment (*Inhibition of Return (IOR)*)
- visual search: exploring the effect of set size on search time for a conjunction of features (*Visual Search*)
- attending in time: exploring speed limits of attention using a modified attentional blink paradigm (*Attentional Blink paradigm*)

To help you decide, demonstrations and background information for each experiment are available at <https://www.psychtoolkit.org/experiment-library/>

2. read the background journal article(s) on your topic:

These are available on **Canvas** (*Library Online Course Reserves*).

- global vs. local object processing: 1. Navon, D. (1977) Forest before trees: the precedence of global features in visual perception. *Cognitive Psychology*, 9:353-383. (Expt 3 classic); 2. Kinchla, R. & Wolfe, J. (1979). The order of visual processing: “top-down”, “bottom-up”, or “middle-out”. *Perception & Psychophysics*, 25:224-231. (Fig 2b comparison)
- attending in space: 1. Posner, M. & Cohen, Y. (1984). Components of visual orienting. *In: Attention and Performance Vol X* (Bouma and Bouwhuis, eds.) pp. 531-556, Erlbaum. (Fig 32.2 + 32.3 classic & comparison)
- visual search: 1. Treisman, A. & Gelade, G. (1980) A feature-integration theory of attention. *Cognitive Psychology*, 12:97-136. (Expt 1 classic & comparison)
- attending in time: 1. Raymond, J., Shapiro, K. & Arnell, K. (1992). Temporary suppression of visual processing in an RSVP task: an attentional blink? *Journal of Experimental Psychology: Human Perception and Performance*, 18:849-860. (Expt 2 classic); 2. Duncan, J., Ward, R. & Shapiro, K. (1994). Direct measurement of an attentional dwell time in human vision. *Nature*, 369:313-315. (Expt 2 comparison)

You will include a summary of the main findings of the background article(s) in the Introduction to your research paper.

3. collect and analyze data:

Each student will collect a set of data on themselves or a friend (if COVID restrictions permit). Detailed instructions for running each task will be provided in a separate document on Canvas ([Assignments](#)). Analysis will involve sorting the data into conditions and plotting them in a graph for comparison with previous studies.

4. upload raw data:

Your trial-by-trial data should be downloaded from the **PsyToolkit** website in a .txt file, then uploaded to **Canvas** (*Assignments*) before class on **Thursday, April 1**.

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General Overview of Research Projects continued

5. prepare a research paper:

Each student must hand in their own unique research paper based on their data set. Organize your paper with clearly labeled Introduction (include a description of the classic psychological phenomenon [from background article(s), lecture/textbook material], a summary of the main findings of the comparison background article on your topic [see 2. above], a typical explanation for why the phenomenon occurs); Methods (for your **PsyToolkit** experiment: describe the stimuli, task, viewing conditions, number of trials, what you measured [dependent variable]; include enough detail for someone to recreate your experiment without using the **PsyToolkit**); Results (describe how the data were analyzed; summarize your raw trial-by-trial data in a table that shows the average of the dependent variable for each condition; plot these averages in a graph and compare the pattern of your results to the one obtained in the comparison experiment); Discussion (describe the extent to which you replicated the classic phenomenon; point out any differences between your **PsyToolkit** experiment and the comparison one, and how these might have affected your ability to replicate the classic phenomenon; discuss whether or not your results are consistent with the typical explanation for the phenomenon; review what is known about the underlying brain mechanisms for your phenomenon based on animal neurophysiology and human neuroimaging studies [cite at least 2 journal articles in addition to the background article(s)]; Reference list (include a full reference citation for each journal article [authors, year, title, journal, volume, page numbers]; do not list an article unless you have cited it). There is no specific format to follow; the limit is 5 double-spaced pages (12-pt font, 2 cm margins) + the reference list. You may have difficulty finding suitable references if you restrict your search to Google 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. Web of Science is the best tool to search forward to find articles that cite your background article.

6. submit your paper to TurnItIn to check for plagiarism:

To submit your paper on www.turnitin.com, you will need to create a unique user profile, consisting of a username (e-mail address) and password. To protect your privacy, UBC recommends creating an anonymous email address using a free service (gmail, hotmail, etc.), and using an alias or pseudonym instead of your name. This alias must be included on the paper you upload to **Canvas** for marking. At the top right of the **TurnItIn** website, go to **Create Account** and select **Student**. Enter the **Class ID (27782373)** and **Enrolment Password (paper)** for this course. Prior to uploading, please **delete any identifying information** from the original document. This includes your name and student number in the document and title, as well as any metadata or hidden data that might be stored in the document itself. You can remove metadata from your Microsoft Word document using [Document Inspector](#) (Windows) or by clicking on **Word > Preferences > Security**, then selecting **Remove personal information from this file on save** (Mac). Your similarity index should be in the green zone.

7. upload your paper to Canvas:

The final version of your paper should be uploaded to **Canvas (Assignments)** before class on **Tuesday, April 13**. If you used an alias for your **TurnItIn** submission, be sure to include it at the top of the first page of your paper.

Late assignments: A 3-day extension (until April 16) may be requested; after that a penalty of 10% per day will be applied. Assignments received after April 23 will not be marked.