

## **Sensory Processes 2E03E**

**T & Th - 6:30-9:30**

**Venue: PC/155**

**Course Instructor:** Dr. Ullal, G.

**Contact:** Department of Psychology, Neuroscience and Behaviour (Room 108)

Tel. 21331; email: [ullalg@mcmaster.ca](mailto:ullalg@mcmaster.ca) . There are no specific office hours. Please feel free to contact me via email and schedule an appointment at any time during the week.

### **Course Description and Objectives:**

Basic survival of an organism relies upon its knowing the world that surrounds it. The fundamental system that underlies this knowledge is what “Sensory Processes” is all about. Perhaps, it may not be an exaggeration to state that in sensory mechanisms one sees the ‘constant endeavor’ of human consciousness to explore the world around. Exploring this is indeed an exciting task. The ever-growing tools of investigation make this attempt even more fascinating. Further, the clinical vignettes serve as ‘road-maps’ for our exciting and ambitious journey towards understanding the brain through Sensory Processes.

### **Textbook:**

The text for the course is Goldstein, E.B. Sensation and Perception. Thomson-Wadsworth Publication 8<sup>th</sup> Edition –2009 (Earlier editions are equally good).

**NOTE:** Examinations are based on lectures. The lectures will cover material from the textbook as well as from outside sources. Skeleton PowerPoint slides for the lecture will be posted prior to every class on the WebCT. Students are advised to make their own notes in class.

**Examinations:** There will be two midterm examinations and one final examination. The midterm examinations will be worth 25% each and the final will be worth 50% of the total. All the exams (including final) will be based on a few short answers and multiple-choice questions. They will be held during the class hour.

**Missed Examinations:** There will **NOT** be a re-examination for missing any of the midterm examinations. However, if a student misses any examination owing to an illness or any other legitimate reason, the final examination will be rated proportionately higher provided an official permission is routed through the University Administration. No examination will be re-scheduled unless there is cancellation of the class by the University.

**Conflict Of Examinations:** All the examinations (including the final) are conducted during the regular class-hour. If any other examination conflicts with this examination, please contact the authorities conducting the other examination.

**Important Announcements:** Important announcements regarding the course will be periodically posted in the **Announcement Box** of the course. Please check the website often.

**MCMMASTER UNIVERSITY GRADING SCALE:**

Grade	Equivalent Grade Point	Equivalent Percentages
A+	12	90-100
A	11	85-89
A-	10	80-84
B+	9	77-79
B	8	73-76
B-	7	70-72
C+	6	67-69
C	5	63-66
C-	4	60-62
D+	3	57-59
D	2	53-56
D-	1	50-52
F	0	0-49

## Schedule of lecture topics and reading

### NOTE

1. First midterm examination will cover all material taught in class from first day of class till the last lecture (inclusive) before the 1<sup>st</sup> midterm examination.
2. Second midterm examination will cover all material taught after the 1<sup>st</sup> midterm examination till the last lecture (inclusive) before the 2<sup>nd</sup> midterm.
3. Final examination is cumulative of entire material taught in the course.
4. The topics listed below will follow the dates against them approximately.
5. Lectures do not strictly go by the text. All exams are based on lecture-material covered in class.

Session	Date	Topic	Suggested reading from the text
1	June 23 <sup>rd</sup>	Introduction	Ch 1
2	June 25 <sup>th</sup>	Organization of Sensory system	Part of Ch 2
3	June 30 <sup>th</sup>	Investigating the Sensory System	Ch 1
4	July 2 <sup>nd</sup>	Micro organization of Sensory System	Part of Ch 2
<b>5</b>	<b>July 7<sup>th</sup></b>	<b>1<sup>st</sup> In-class midterm examination (45 minutes)</b> followed by lecture-Vision-1: Eyeball, Accommodation.	
6	July 9 <sup>th</sup>	Vision-2: Retinal architecture and ERG	Ch 3
7	July 14 <sup>th</sup>	Vision-3: Retinal biochemistry and physiology	Part of Ch 2 and Ch 3
8	July 16 <sup>th</sup>	Vision-4: Visual pathway and LGN	Ch 3 and Ch 4
9	July 21 <sup>st</sup>	Vision-5: Organization of Visual Cortex; The two Visual Streams	Ch 4
<b>10</b>	<b>July 23<sup>rd</sup></b>	<b>2<sup>nd</sup> In-class midterm examination (45 minutes)</b> followed by lecture-Vision-6: Colour Vision	<b>Only material covered after the 1<sup>st</sup> test will be tested</b>
11	July 28 <sup>th</sup>	Vision-7: Depth Perception and Optical	Ch 8

		Flow; Face Perception.	Ch 5
12	July 30 <sup>th</sup>	Audition: External, middle ear and internal ear structure. Middle ear functions..	Ch 11-12
13	Aug 4 <sup>th</sup>	Mechanism of hearing, Sound localization, Auditory pathway	Ch 11-12
<b>14</b>	<b>Aug 6<sup>th</sup></b>	<b>Final Examination (in class- 2 hrs)</b>	<b>Cumulative of all material covered in the course</b>

### **A Note on Academic Dishonesty**

You are expected to exhibit honesty and use ethical behaviour in all aspects of the learning process. Academic credentials you earn are rooted in principles of honesty and academic integrity.

Academic dishonesty is to knowingly act or fail to act in a way that results or could result in unearned academic credit or advantage. This behaviour can result in serious consequences, e.g. the grade of zero on an assignment, loss of credit with a notation on the transcript (notation reads: “Grade of F assigned for academic dishonesty”), and/or suspension or expulsion from the university.

It is your responsibility to understand what constitutes academic dishonesty. For information on the various types of academic dishonesty please refer to the Academic Integrity Policy, located at <http://www.mcmaster.ca/academicintegrity>

The following illustrates only three forms of academic dishonesty:

1. Plagiarism, e.g. the submission of work that is not one’s own or for which other credit has been obtained.
2. Improper collaboration in group-work.
3. Copying or using unauthorized aids in tests and examinations.

### **Message from the Chair of Psychology**

The Instructor cannot be responsible for returning long distance calls from students. Any student wishing to reach an Instructor is invited to e-mail the instructor.