This course is primarily aimed at offering a glimpse at complex neural systems in normal and diseased states. We will address the neural structures and mechanisms underlying this.

The text book for the course will be *Physiology of Behavior by Neil R. Carlson, 8th Edition* (Allyn & Bacon). The pages pertaining to each lecture are indicated in the Course Outline below. At least two copies of 8th edition of the text book are kept on reserve in the Health Science Library and the Mills Library.

**Please note:**

1. An out-line of every forthcoming lecture along with copies of key over-head transparencies that are used during the lecture will be posted on the psychology department course web-page periodically, generally prior to the lecture. Photocopies of the same are also available in the HSc Library.

2. The lectures and tests do not strictly adhere to the contents of the text book. Therefore, students are advised to make notes during the lecture.

3. There will be tutorials every Friday afternoon (3:00-4:00 PM; location-room 316 in Psychology building), to review the concepts discussed during the week.

**Assessment:**

There will be 2 tests and 1 final examination in the form of Multiple Choice Questions (MCQ). The material for the tests/examinations are
indicated in the Course Outline. Tests 1 and 2 carry 50 marks each, of 1 hour duration and the Final examination is for 150 marks of 3 hours.

**Grades:**

Finally, all the points will be consolidated, and Grades assigned according to the following conventional scheme:

<table>
<thead>
<tr>
<th>Marks</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>90-100</td>
<td>A+</td>
</tr>
<tr>
<td>85-89</td>
<td>A</td>
</tr>
<tr>
<td>80-84</td>
<td>A-</td>
</tr>
<tr>
<td>77-79</td>
<td>B+</td>
</tr>
<tr>
<td>73-76</td>
<td>B</td>
</tr>
<tr>
<td>70-72</td>
<td>B-</td>
</tr>
<tr>
<td>67-69</td>
<td>C+</td>
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<tr>
<td>63-66</td>
<td>C</td>
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<td>60-62</td>
<td>C-</td>
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<tr>
<td>57-59</td>
<td>D+</td>
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<tr>
<td>53-56</td>
<td>D</td>
</tr>
<tr>
<td>50-52</td>
<td>D-</td>
</tr>
<tr>
<td>0-49</td>
<td>F</td>
</tr>
</tbody>
</table>

Based on individual’s overall performance and special circumstances, the Instructor reserves the right to scale the final marks up or down.

**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.
Policy Reminder

Attention is drawn to the Statement on Academic Ethics and the Senate Resolutions on Academic Dishonesty as found in the Senate Policy Statements distributed at registration and available in the Senate Office. Any student who infringes one of these resolutions will be treated according to the published policy.

Contacts

*Instructor*: ullalg@mcmaster.ca

*TAs*:

1. Akrong James: akrongja@mcmaster.ca
2. Wang Li: liwang@mcmaster.ca

*We will try making the course as interactive as possible. Students are encouraged to seek clarifications during the lecture-session. Besides this, they are free to email any of the members in the team. Further, I (Instructor) will be meeting the students on EVERY FRIDAY AFTER NOON (3:00 PM to 4:00 PM) in Room No. 316 (Psychology department) to answer any questions that arise from time-to-time.*
2FO3 COURSE OUTLINE

(Please note: The contents of the lectures do not strictly confine to the text material)

**Day 1**: (Date: **September 15th 2004**)

Session 1: Introduction to the course

Session 2: Investigating the nervous system (Text pp. 3-6 & 132-160)

**Day 2**: (Date: **September 22nd 2004**)

Session 1: Organization of nervous system (Text pp. 67-99)

Session 2: Organization of a neuron (Text pp. 27-38)

**Day 3**: (Date: **September 29th 2004**)

Session 1: Membrane potentials of neuron and nerve conduction

(Text pp. 39-47)

Session 2: Synaptic mechanisms (Text pp. 50-62)

**Day 4**: (Date: **October 6th 2004**)

Session 1: **TEST-1** (Lecture material covered from Day 1 to Day 3)

Session 2: Sensory Processing: Organization of sensory system

(Text pp. 222-226)

**Day 5**: (Date: **October 13th 2004**)

Session 1: Cutaneous sensations (Text pp. 222-226)

Session 2: Vision 1: Refraction and accommodation (Text pp. 165)

**Day 6**: (Date: **October 20th 2004**)

Session 1: Vision 2: Retinal processing (Text pp. 168)

Session 2: Vision 3: Photo-transduction (Text pp. 169)
Day 7: (Date: October 27th 2004)
Session 1: Vision 4: Visual pathway (Text pp. 170)
Session 2: Vision 5: Organization of lateral geniculate body & visual cortex (Text pp. 178-183)

Day 8: (Date: November 3rd 2004)
Session 1: Vision 6: The “Hows” and “Whats” of visual inputs (Text pp. 185-197)
Session 2: Audition 1: External-middle & internal ear (Text pp. 203-207)

Day 9: (Date: November 10th 2004)
Session 2: TEST 2 (Lecture material covered from Day 4 to Day 8)

Day 10: (Date: November 17th 2004)
Session 1: Organization of Motor system (Text pp. 255)
Session 2: Pyramidal system (Text pp. 256)
Extra-pyramidal system and basal ganglia (Text pp. 262-268)

Day 11: (Date: November 24th 2004)
Session 1: Disorders associated with dysfunctions of basal ganglia (Text pp. 268)
Session 2: Cerebellum (Text pp. 272)
Day 12: (Date: December 1\textsuperscript{st} 2004)

Session 1: Gait, tone and posture. (Text pp. 250-254)

Session 2: Spill-over topics

\textbf{Final Exam}: - Date to be announced;

- All topics will be included (Day 1 to 12)

- Comprises of multiple choice questions

- About 70\% of the questions will be from lecture material covered from Day 1 to day 9 and 30\% will be from Day 10 to Day 12.