McGILL UNIVERSITY
Faculty of Medicine
School of Communication Sciences & Disorders
2001 McGill College Ave, Unit 800
Winter 2015

Neurolinguistics
SCSD-638

Number of Credits: 3 Credits
Course Time: Wednesdays, 9:00 am - 11:00 am (Rm 869)

Instructor: Karsten Steinhauer, Ph.D.
Office: Rm 817
Office Phone: (514) 398-2413
Office Hours: By appointment (please set up by email)
Email: karsten.steinhauer@mcmill.ca

COURSE CONTENT and LEARNING OUTCOMES:
This course examines the nature of acquired language deficits subsequent to brain injury within the context of current theories of brain-language relationships. The course will review current research on impairments at different levels of the language code and thus builds on material covered in SCSD-624 (Language Processes). Here, material will be presented with the goal of understanding the theoretical frameworks relevant to acquired language disorders, the clinical and functional characteristics of these disorders, and associated perceptual, cognitive, and psychosocial factors which impact on communication in this context. This knowledge will provide a foundation for examining issues related to the assessment and management of neurogenic speech and language disorders which will be introduced in SCSD-644 (Applied Neurolinguistics).
INSTRUCTIONAL METHOD:

- Lecture/Seminar, including group projects, power-point presentations and discussions.

COURSE MATERIALS:

- All readings and power point presentations will be posted on MyCourses

REQUIREMENTS & EVALUATION:

It is expected that you have read the assigned chapters and papers prior to the lecture. This includes the main papers selected for student presentations.

Your grade will depend upon

- 1 in-class quiz (4th February; main focus on functional neuroanatomy) 20%
- In-class participation 10%
- Adult placement assignment (2 students; BDAE+WM data + report) 15%
- Group presentation (power point) of a relevant topic based on research (15-20 min + brief discussion; given by groups of 3-4 students) 25%
- Final exam (official exam schedule) (short answer / short essay format) 30%

McGill Policy and Statement:

McGill University values academic integrity. Therefore all students must understand the meaning and consequences of cheating, plagiarism and other academic offences under the Code of Student Conduct and Disciplinary Procedures (see www.mcgill.ca/students/srr/honest/ for more information).

In accord with McGill University’s Charter of Students’ Rights, students in this course have the right to submit in English or in French any written work that is to be graded.

COURSE ROADMAP

Overview and history of the field - January 7th (First week)

UNIT A - January 14th - January 28th (3 weeks)
Neurology/neurophysiology of acquired language disorders

UNIT B - February 4th - March 25th (6-7 weeks)
Clinical, functional, and psycholinguistic aspects of aphasis language disorders

UNIT C - April 1st - April 8th (2 weeks)
Cognitive communication disorders associated with right hemisphere pathology, head trauma, and dementia
### SCHEDULE
(Note: Schedule + topics may change. Please check MyCourses for updates and readings.)

<table>
<thead>
<tr>
<th>Unit</th>
<th>#</th>
<th>Date</th>
<th>Topic</th>
<th>Other Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>01</td>
<td>Jan 07</td>
<td><strong>Overview and a brief history of aphasiology</strong></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>02</td>
<td>Jan 14</td>
<td><strong>Neuroanatomy</strong> (guest lecture by Jean-Sébastien Provost)</td>
<td>Presentation topics ready → Doodle</td>
</tr>
<tr>
<td></td>
<td>03</td>
<td>Jan 21</td>
<td><strong>Neuroanatomy Lab</strong> (with J-S Provost)</td>
<td>Materials for lab (lab coats etc) will be handed out by Antoinette at SCSD !</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>→ Meet at: Strathcona Anatomy and Dentistry Building</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3640 University (Histology Lab – 1st floor)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>04</td>
<td>Jan 28</td>
<td><strong>Neurological disorders + mechanisms causing them</strong> (e.g., cerebrovascular disease; neurodiagnostics)</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>05</td>
<td>Feb 04</td>
<td><strong>Introduction to aphasia I</strong></td>
<td>Quiz</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>What is aphasia? Anatomical correlates of aphasia</td>
<td></td>
</tr>
<tr>
<td></td>
<td>06</td>
<td>Feb 11</td>
<td><strong>Introduction to aphasia II</strong></td>
<td>Presentation 1: Plasticity</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Aphasia classification</td>
<td></td>
</tr>
<tr>
<td></td>
<td>07</td>
<td>Feb 18</td>
<td><strong>Disorders of phonology and articulation</strong></td>
<td>P2: Apraxia</td>
</tr>
<tr>
<td></td>
<td>08</td>
<td>Feb 25</td>
<td><strong>Disorders of semantics and word retrieval</strong></td>
<td>P3: Errorless</td>
</tr>
<tr>
<td></td>
<td>09</td>
<td>Mar 04</td>
<td>------- <strong>STUDY BREAK</strong> -------</td>
<td></td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>Mar 11</td>
<td><strong>Disorders of syntax and morphology</strong></td>
<td>P4: Music ther.</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>Mar 18</td>
<td><strong>Disorders of written word recognition + production</strong></td>
<td>P5: TMS</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>Mar 25</td>
<td><strong>Tentative: Adult placement assignment (BDAE-3 etc)</strong></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>13</td>
<td>Apr 01</td>
<td><strong>Disorders of discourse and pragmatics</strong></td>
<td>P6: Bilingual aphasia</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(Guest lecture by Kathrin Rothermich)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>14</td>
<td>Apr 08</td>
<td><strong>Traumatic brain injury and dementia</strong></td>
<td>P7: PPA</td>
</tr>
</tbody>
</table>
Group Presentations (worth 25 % of your grade)

Procedure:

1. You will build 7 groups of 3-4 students. Each group will select (or be assigned to) a topic relevant to this course and prepare a 15-20-minute power point presentation (plus 5 minutes discussion). All 3 or 4 students must be involved in both the preparation and the presentation (~5 min per student). One or more core readings will be made available on MyCourses, but you are strongly encouraged to search the literature and/or web for additional information that should be integrated in the presentation.

2. The presentation should give your peers a good overview of the paper(s) and should try to highlight interesting or controversial points that can be addressed during the 5-min discussion period. Be prepared to ask questions that can initiate a discussion.

3: Please submit a copy of any additional research articles one week before your presentation (so I can post it on MyCourses), and the power point file at least 1 day before your presentation (by email to karsten.steinhauer@mcgill.ca).

4. A good presentation is characterized by focus on the main points (research question, methods, findings, conclusion, criticism), clarity, good structure (general → details) and appropriate time considerations.

5. Topics for student presentations:
   a. Feb 11 Neuroplasticity
   b. Feb 18 Apraxia of Speech
   c. Feb 25 Errorless learning in anomia
   d. Mar 11 Music therapy in aphasia
   e. Mar 18 Electrify your treatment: TMS and tDGS
   f. Apr 01 Bilingual aphasia
   g. Apr 08 Primary progressive aphasia (PPA)