

**SPECIAL LECTURES IN NEUROSCIENCE:
AUDITORY NEUROSCIENCE
BIO 695S/SLHS 658S, Spring 2008**

Seminar Meets: W 1:30-3:20 (HEAV G042)
Plus arrange additional time
Office Hours: By Appointment

INSTRUCTORS

Elizabeth Strickland
HEAV G36B
494-3804
estrick@purdue.edu

Michael Heinz
HEAV G34C
496-6627
mheinz@purdue.edu

TENTATIVE SCHEDULE:

<u>Date</u>	<u>Topic</u>	<u>Discussion Leader</u>
Jan 9	Logistics, Introduction to Tollin	Beth Strickland/Mike Heinz
Jan 16	Journal Articles	Students
Jan 23	Journal Articles	Students
Jan 30	Intro to Joris, Joris Journal Articles	Heinz, Students
Feb 6	Informal Lecture	Dan Tollin
	“Physiological and Behavioral Mechanisms of Binaural Hearing”	
Feb 7	<i>Open Formal Seminar/Lab visits</i>	
Feb 13	Journal Articles	Students
Feb 20?? ARO?	Journal Articles	Students
Feb 27	Informal Lecture	Philip Joris
	“Temporal Coding in the Auditory System”	
Feb 28	<i>Open Formal Seminar/Lab visits</i>	
March 5	Intro to Liberman, Journal Articles	Heinz, Students
<i>Mar 12</i>	<i>Spring Break</i>	
Mar 19	Journal Articles	Students
Mar 26	Journal Articles, Intro to Shannon	Students, Strickland
Apr 2	Informal Lecture	Charlie Liberman
	“Efferent Feedback in the Auditory System”	
Apr 3	<i>Open Formal Seminar/Lab visits</i>	
Apr 9	Journal Articles	Students
Apr 16	Journal Articles	Students
April 23	Informal Lecture	Bob Shannon
	“Auditory Prostheses”	
April 24	<i>Open Formal Seminar/Lab visits</i>	

Course Goal

To provide students with:

- (1) an opportunity to interact with scientists that are leaders in research on the auditory system.
- (2) an opportunity to become familiar with some of the approaches used to study the auditory system.
- (3) the background knowledge and experience needed to critically evaluate neuroscience research on the auditory system and auditory perception.

Course Requirements

- (1) Attend all classes and participate in discussions. Attendance is mandatory. If you must miss a class, you must let the instructors know ahead of time.
- (2) Read all assigned papers
- (3) For each article that is NOT presented by your group, write an NIH style Project Summary/Abstract (see handout). This is due in class the day the article is presented.
- (4) Attend at least one meal with each guest speaker.
- (5) Attend all 4 of the open formal lectures given by the guest speakers

Grading will be determined primarily based on your oral presentations (especially on your facilitation of an “active” discussion by your peers), participation throughout the course (both in class and with the speakers), and on your written abstracts

Groups:

You will be divided into groups, and a leader will be chosen. Each group will be responsible for one guest speaker. The leader is responsible for organizing the group (delegating responsibilities) to make sure all presentations, discussions, and speaker-visit logistics go smoothly. The leader is also responsible for communicating with course instructors about any issues that arise, when necessary.

Group responsibilities:

Present all papers for that speaker, with work distributed equally.

Individuals will present, but the whole group is responsible for the quality of all presentations, and for coordination between presentations. It is suggested that you get input (e.g. practice talks) from the whole group prior to presentation.

Powerpoint presentations must be emailed to the whole class at least 24 hours prior to class time.

Coordinate with the speaker ahead of time on logistics (e.g. people they want to meet, dietary preferences, special needs).

Arrange speaker's travel logistics during their visit, including picking him up at the Indianapolis airport.

Introduce the speaker at the public seminar.

This course requires a lot of responsibility when the speakers are here. These are well-respected scientists and we all will benefit from giving them a good impression of Purdue! It is each group's primary responsibility to ensure that the speakers have a good visit, but every student should do whatever they can during each visit to make sure the speakers are happy. You should also take advantage of speaker visits to discuss your own research ideas with them.

Student Presentations:

The key is to facilitate DISCUSSION.

Whatever background information is needed to understand the paper and facilitate discussion needs to be included. If you don't know, look it up!

Four Speaker Visits (Feb 6-7, Feb. 27-28, Apr. 2-3, Apr 23-24)

Tue or Wed – Pick up speakers at airport, deliver to Union Hotel

Wednesday – Lunch (11:30 a.m.)
Informal lecture during class time
Dinner (6:00 or 6:30 pm)

Thursday – Lunch (11:30 a.m.)
Reception / Seminar at Stewart Center (3:30 / 4:00 p.m. ???)

References:

You come from a variety of areas, which will be a strength of the course. However, at some point you may feel that you do not have the particular background needed to understand a paper or topic. Some useful references are:

- B. C. J. Moore, An Introduction to the Psychology of Hearing
- J. O. Pickles, An Introduction to the Physiology of Hearing
- D. Geisler, From Sound to Synapse
- C. Plack, The Sense of Hearing

The instructors will be happy to discuss topics with you, or direct you to other resources.