Syllabus – Spring 2021

Excluding materials for purchase, syllabus information may be subject to change. The most up-to-date syllabus is located within the course in HuskyCT.

Course and Instructor Information

Course Title: Advanced Speech Science II
Credits: 3
Format: Distance Learning: asynchronous with synchronous components
Prerequisites: Course Prerequisites

Professor: Dr. Emily Myers
What to Call me: Dr. Myers, Professor Myers, & Emily are all good ways to address me
Pronouns: she/her

Email: emily.myers@uconn.edu (preferred)
Telephone: 486-2630 (not preferred)
Office Hours/Availability: Mondays, 10-12 on Nexus, or by appointment

Synchronous Meetings: Tuesdays, 6PM – 8PM, on Zoom:
Join Zoom Meeting
ID: 89530350915
Password: x60XRn5cBm

Course Materials

All course readings and media are available within HuskyCT, through either an Internet link or Library Resources

Course Description

The speech signal undergoes many transformations between the impact of sound upon the cochlea to understanding a spoken message. Listeners must be able not only to perceive the acoustic cues which distinguish one speech sound from another, but must also be able to accommodate variation which comes from different speakers, different
accents, different phonetic contexts, and different speech rates. Moreover, the speech signal carries more information than just the linguistic message: we perceive emotion, prosody, and talker identity via the speech signal. In this course we will examine the steps the listener undergoes to transform the acoustic signal into meaning. We will focus on acoustic and visual properties of speech, models of speech perception, and the cognitive neuroscience of speech perception. Each topic will be considered from the perspective of unimpaired perception as well as with respect to special populations.

Course Format/Meeting Schedule

This course uses a “flipped” or “hybrid” format. The structure of the course each week will look like this:

1. Lecture videos are posted for offline viewing by approximately Weds the week before
2. Students will generate a discussion question in the online forum on Husky CT by Monday 12:00 PM
3. On Tuesday at 6 PM, we will meet virtually (on Zoom) for 1-2 hours for student presentations, in-class activities, and discussion.
4. Each class will conclude with a Challenge Question based on that week’s topic. The student or students assigned to that week will then have a week to research this topic and report back to the class at the beginning of the next week’s class.

Here, I made you a diagram:

<table>
<thead>
<tr>
<th>Week 1</th>
<th>Week 2</th>
<th>Week 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mon</td>
<td>Tues</td>
<td>Weds</td>
</tr>
<tr>
<td>Video for Topic 1 Released</td>
<td>By midnight: post in discussion board</td>
<td>Challenge Question Presentation (Topic 1)</td>
</tr>
<tr>
<td>By midnight: post in discussion board</td>
<td>In-class discussion of Topic 1, Challenge Questions Assiged</td>
<td>In-Class Discussion of Topic 2, Challenge Questions for T2</td>
</tr>
</tbody>
</table>
Course Objectives

By the end of the semester, you should be able to:
1. Understand the acoustics properties of speech sounds.
2. Describe how listeners use those acoustic properties to map onto phonemes and words.
3. Understand how other factors (language influences, cognitive factors) affect speech perception.
4. Integrate this information into clinical best practices for hearing assessment and rehabilitation.
5. Do literature searches on a topic, evaluate the primary sources with an eye towards research quality.
6. Develop skills to perform research on hearing and speech perception.

Course Requirements and Grading

Summary of Course Grading:

<table>
<thead>
<tr>
<th>Course Components</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exam 1</td>
<td>25%</td>
</tr>
<tr>
<td>Exam 2</td>
<td>25%</td>
</tr>
<tr>
<td>Labs (2, 5% each)</td>
<td>10%</td>
</tr>
<tr>
<td>Challenge question presentation</td>
<td>10%</td>
</tr>
<tr>
<td>Group Project</td>
<td>20%</td>
</tr>
<tr>
<td>Participation</td>
<td>10%</td>
</tr>
</tbody>
</table>

1. Exams: there will be two exams, one midway through the semester, and the other at the end of the semester during the final exam period. The second exam will not be cumulative, although it will draw on concepts from the beginning of the semester.

2. There will be two labs (each 5%) having to do with interpreting speech perception or production data.

3. Each course topic will conclude with a “challenge question.” One or two students will research questions about the week’s topic by reading some primary literature and reporting back to the class and leading discussion. Each student will participate in a challenge question once per semester. Students will sign up to be the challenge question presenter at the beginning of the semester (i.e. you’ll know in advance that it’s going to be your week to present).

2. A group research project will constitute 20% of your grade. In groups of 4-5 students, you will generate a research question, collect data, analyze data, and present it to the class. Group members will be responsible for separate portions of the write-up. Each student’s grade for the group project will be an average of my grade for your assigned section (the individual grade) and my overall grade for the project (the group
grade). That means that there’s an incentive to do your section of the project well, but also to help your group members produce a high-quality project.

3. **Participation** will constitute 10% of your grade. Note that this grade is not a “freebie”—I will be tracking participation, because it is an important part of engagement in the learning process. Participation falls into two main categories:
   - Each week, you will watch the online background lecture, read one review or primary source articles and **submit discussion questions online to jumpstart discussion**.
   - During our synchronous course sessions, you are expected to ask questions of your peers during challenge question presentations and during in-class discussion. **Aim to participate at least once per class session.**

For additional information on graduate grading policies see here (note that effective Fall, 2020, the grade of A+ no longer exists) https://gradcatalog.uconn.edu/grad-school-info/academic-regulations/#Grades

**Grading Scale:**

<table>
<thead>
<tr>
<th>Grade</th>
<th>Letter Grade</th>
<th>GPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>93-100</td>
<td>A</td>
<td>4.0</td>
</tr>
<tr>
<td>90-92</td>
<td>A-</td>
<td>3.7</td>
</tr>
<tr>
<td>87-89</td>
<td>B+</td>
<td>3.3</td>
</tr>
<tr>
<td>83-86</td>
<td>B</td>
<td>3.0</td>
</tr>
<tr>
<td>80-82</td>
<td>B-</td>
<td>2.7</td>
</tr>
<tr>
<td>77-79</td>
<td>C+</td>
<td>2.3</td>
</tr>
<tr>
<td>73-76</td>
<td>C</td>
<td>2.0</td>
</tr>
<tr>
<td>70-72</td>
<td>C-</td>
<td>1.7</td>
</tr>
<tr>
<td>67-69</td>
<td>D+</td>
<td>1.3</td>
</tr>
<tr>
<td>63-66</td>
<td>D</td>
<td>1.0</td>
</tr>
<tr>
<td>60-62</td>
<td>D-</td>
<td>0.7</td>
</tr>
<tr>
<td>&lt;60</td>
<td>F</td>
<td>0.0</td>
</tr>
</tbody>
</table>

**Due Dates and Late Policy**

All course due dates are identified in the Syllabus, or via announcements on Husky CT. Deadlines are based on Eastern Time unless otherwise specified. *I reserve the right to adjust dates accordingly as the semester progresses. All changes will be communicated in an appropriate manner.*

Late assignments will be penalized at one half letter grade per day late, unless you have already communicated with me about a valid reason for an extension.

**Feedback and Grades**
I will make every effort to provide feedback and grades within a week of the assignment due date. To keep track of your performance in the course, refer to My Grades in HuskyCT. If you are concerned about your performance in my class, the best policy is to get in touch with me as soon as you begin to have concerns so we can get you back on track.

**Weekly Time Commitment**

You should expect to dedicate ~9 hours a week to this course. This expectation is based on the various course activities, assignments, and assessments and the [University of Connecticut’s policy regarding credit hours](#). (More information related to hours per week per credit can be accessed at the [Online Student website](#).)

**Student Authentication and Verification**

The University of Connecticut is required to verify the identity of students who participate in online courses and to establish that students who register in an online course are the same students who participate in and complete the course activities and assessments and receive academic credit. Verification and authentication of student identity in this course will include:

1. Secure access to the learning management system using your unique UConn NetID and password.
2. Hilariously enough, I'll check that you are who you appear to be according to your photo on HuskyCT.

**Exams:**

Exams will be administered during the evening course block on the scheduled days. Exams will be open-book/open-note, but collaboration with classmates is prohibited.

---

**Course Outline/Schedule**

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Readings (subject to change)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/19</td>
<td>Introduction to the Course/Review</td>
<td><em>(your notes from undergrad Phonetics/Speech Science)</em></td>
</tr>
<tr>
<td>1/26</td>
<td>Acoustic Properties of Speech Part I</td>
<td>Sanders, Chapter 2</td>
</tr>
<tr>
<td>2/2</td>
<td>Acoustic Properties of Speech Part II</td>
<td></td>
</tr>
<tr>
<td>Date</td>
<td>Challenge Question</td>
<td>Topic &amp; Notes</td>
</tr>
<tr>
<td>-------</td>
<td>-------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>2/9</td>
<td>Challenge Q: Acoustics of Speech I/II Categorical Perception</td>
<td>Liberman, et al., 1957</td>
</tr>
<tr>
<td>2/16</td>
<td>Challenge Q: Categorical Perception Speech in challenging listening conditions</td>
<td>Pichora-Fuller, 1995</td>
</tr>
<tr>
<td>3/2</td>
<td>MIDTERM</td>
<td></td>
</tr>
<tr>
<td>3/9</td>
<td>Challenge Q: Top-down influences Audiovisual perception</td>
<td>Summerfield, 1992</td>
</tr>
<tr>
<td>3/30</td>
<td>Challenge Q: Neuroscience Infant/Child speech perception</td>
<td>Werker &amp; Tees, 2005</td>
</tr>
<tr>
<td>4/6</td>
<td>Challenge Q: Infant/child speech Doing research in speech perception: group project work day</td>
<td></td>
</tr>
<tr>
<td>4/13</td>
<td>NO CLASS: SPRING RECESS</td>
<td></td>
</tr>
<tr>
<td>4/20</td>
<td>Bilingual speech perception / Adult second language acquisition</td>
<td>Bradlow, 2008</td>
</tr>
<tr>
<td>4/27</td>
<td>Challenge Q: Bilingual speech perception Group Presentations</td>
<td></td>
</tr>
<tr>
<td>5/4</td>
<td>READING WEEK</td>
<td></td>
</tr>
<tr>
<td>5/7</td>
<td>Final</td>
<td>6:00—8:00 PM</td>
</tr>
</tbody>
</table>
Resources for Students Experiencing Distress

The University of Connecticut is committed to supporting students in their mental health, their psychological and social well-being, and their connection to their academic experience and overall wellness. The university believes that academic, personal, and professional development can flourish only when each member of our community is assured equitable access to mental health services. The university aims to make access to mental health attainable while fostering a community reflecting equity and diversity and understands that good mental health may lead to personal and professional growth, greater self-awareness, increased social engagement, enhanced academic success, and campus and community involvement.

Students who feel they may benefit from speaking with a mental health professional can find support and resources through the Student Health and Wellness-Mental Health (SHaW-MH) office. Through SHaW-MH, students can make an appointment with a mental health professional and engage in confidential conversations or seek recommendations or referrals for any mental health or psychological concern.

Mental health services are included as part of the university’s student health insurance plan and also partially funded through university fees. If you do not have UConn’s student health insurance plan, most major insurance plans are also accepted. Students can visit the Student Health and Wellness-Mental Health located in Storrs on the main campus in the Arjona Building, 4th Floor, or contact the office at (860) 486-4705, or https://studenthealth.uconn.edu for services or questions.

Accommodations for Illness or Extended Absences

Please stay home if you are feeling ill and please go home if you are in class and start to feel ill. If illness prevents you from attending class, it is your responsibility to notify me as soon as possible. You do not need to disclose the nature of your illness, however, you will need to work with me to determine how you will complete coursework during your absence.

If life circumstances are affecting your ability to focus on courses and your UConn experience, students can email the Dean of Students at dos@uconn.edu to request support. Regional campus students should email the Student Services staff at their home campus to request support and faculty notification.

COVID-19 Specific Information: People with COVID-19 have had a wide range of symptoms reported – ranging from mild symptoms to severe illness. These symptoms may appear 2-14 days after exposure to the virus and can include:

- Fever,
- Cough,
- Shortness of breath or difficulty breathing
- Chills
• Repeated shaking with chills
• Muscle pain
• Headache
• Sore throat
• New loss of taste or smell

Additional information including what to do if you test positive or you are informed through contract tracing that you were in contact with someone who tested positive, and answers to other important questions can be found here:
https://studenthealth.uconn.edu/updates-events/coronavirus/

**Academic Misconduct**

Except where explicitly noted (i.e. in the case of the final group project) each students’ work in this course is his/her own. If I have reason to believe that you have collaborated with others on exams or assignments that are meant to be independent, the consequences may be

**Student Responsibilities and Resources**

As a member of the University of Connecticut student community, you are held to certain standards and academic policies. In addition, there are numerous resources available to help you succeed in your academic work. Review these important standards, policies and resources, which include:

• The Student Code
  ○ Academic Integrity
  ○ Resources on Avoiding Cheating and Plagiarism
• Copyrighted Materials
• Credit Hours and Workload
• Netiquette and Communication
• Adding or Dropping a Course
• Academic Calendar
• Policy Against Discrimination, Harassment and Inappropriate Romantic Relationships
• Sexual Assault Reporting Policy

**Students with Disabilities**

The University of Connecticut is committed to protecting the rights of individuals with disabilities and assuring that the learning environment is accessible. Students who require accommodations should contact the Center for Students with Disabilities, Wilbur Cross Building Room 204, (860) 486-2020 or http://csd.uconn.edu/

Blackboard measures and evaluates accessibility using two sets of standards: the WCAG 2.0 standards issued by the World Wide Web Consortium (W3C) and Section 508 of the Rehabilitation Act issued in the United States federal government.” (Retrieved March 24, 2013 from Blackboard’s website)
Software/Technical Requirements (with Accessibility and Privacy Information)

The software/technical requirements for this course include

- HuskyCT/Blackboard ([HuskyCT/ Blackboard Accessibility Statement](https://www.uconn.edu/huskyct/accessibility/), [HuskyCT/ Blackboard Privacy Policy](https://www.uconn.edu/huskyct/privacy/))
- Google Apps ([Google Apps Accessibility](https://www.google.com/privacy), [Google for Education Privacy Policy](https://policies.google.com/privacy))
- PRAAT audio analysis software (freeware)
- Dedicated access to high-speed internet with a minimum speed of 1.5 Mbps (4 Mbps or higher is recommended).
- WebCam

**Privacy Statement:** For information on managing your privacy at the University of Connecticut, visit the [University’s Privacy page](https://www.uconn.edu/privacy). NOTE: This course has NOT been designed for use with mobile devices.

**Help**

[Technical and Academic Help](https://www.uconn.edu/techhelp/) provides a guide to technical and academic assistance.

This course uses the learning management platform, [HuskyCT](https://www.uconn.edu/huskyct/). If you have difficulty accessing HuskyCT, you have access to the in person/live person support options available during regular business hours through the [Help Center](https://www.uconn.edu/helpcenter/). You also have [24x7 Course Support](https://www.uconn.edu/helpcenter/courses-support/) including access to live chat, phone, and support documents.

**Student Technology Training**

Student technology training is now available in a new HuskyCT short course created by students for students. It will prepare you to use the IT systems and services that you will use throughout your time at UConn, whether learning online or on-campus. It is available at [https://lms.uconn.edu/ultra/courses/_80016_1/cl/outline](https://lms.uconn.edu/ultra/courses/_80016_1/cl/outline).

**Evaluation of Course Experience**

Students will be given an opportunity to provide feedback on their course experience and instruction using the University’s standard procedures, which are administered by the [Office of Institutional Research and Effectiveness (OIRE)](https://www.uconn.edu/oir/).

The University of Connecticut is dedicated to supporting and enhancing teaching effectiveness and student learning using a variety of methods. The Student Evaluation of Teaching (SET) is just one tool used to help faculty enhance their teaching. The SET is used for both formative (self-improvement) and summative (evaluation) purposes.
Additional informal formative surveys and other feedback instruments may be administered within the course.

My lectures, notes, handouts, and displays are protected by state common law and federal copyright law. They are my own original expression and I've recorded them prior or during my lecture in order to ensure that I obtain copyright protection. Students are authorized to take notes in my class; however, this authorization extends only to making one set of notes for your own personal use and no other use. I will inform you as to whether you are authorized to record my lectures at the beginning of each semester. If you are so authorized to record my lectures, you may not copy this recording or any other material, provide copies of either to anyone else, or make a commercial use of them without prior permission from me.