Course Number/Title: Ling 123 Sound Communication
GE Area: R
Results reported for AY: 2013-14
# of sections: 10
# of instructors: 3

Course Coordinator: Daniel Silverman
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Department Chair: Swathi Vanniarajan
College: Humanities and Arts

Instructions: Each year, the department will prepare a brief (two page maximum) report that documents the assessment of the course during the year. This report will be electronically submitted, by the department chair, to the Office of Undergraduate Studies, with an electronic copy to the home college by September 1 of the following academic year.

Part 1

To be completed by the course coordinator:

(1) What SLO(s) were assessed for the course during the AY?

SLO 1: Students will be able to demonstrate an understanding of the methods and limits of scientific investigation.

(2) What were the results of the assessment of this course? What were the lessons learned from the assessment?

Ling 123 (Sound Communication) focuses on the evolution of sound communication, from lower animals (frogs, songbirds) to primates, to human language. The course places a special emphasis on both classical and more modern Darwinian and ethological approaches to the evolution of sound communication systems. This tried and true methodology is emphasized in all course lectures, and all written assignments.

The topic and instructions for our two 1500-word essays clearly demonstrates this emphasis:

Essay 1: frogs vs. birds
The topic of the first essay is to compare and contrast the mating signals of two very different vertebrate orders: anurans (frogs and toads) vs. oscines (songbirds). What features do the anuran and oscine mating vocalizations share in common? What features are different? Your essay should discuss the mating signals themselves (their physical properties), as well as how and why those particular vocalizations are produced. You should discuss the organs and brain structures involved in the generation and processing of sound. Finally, you should compare the physical and social environments that frogs and songbirds live in, and what kinds of socioecological problems each is required to solve.

Essay 2: primate vocalizations vs. human language
The topic of the second essay is to compare and contrast human language versus the vocalizations of non-
human primates (monkeys and apes). In the case of primates, you should characterize and explain the vocal communications of Rhesus and vervet monkeys, and optionally other primate species as well. In the case of human language, you should review the design features of human language, and explain whether primate communication systems share these features. How do these systems compare in terms of adaptation, mechanism (anatomy), and ontogeny?

These topics are further tested in both the midterm exams.

The course additionally contains two lab assignments, both using dedicated sound analysis software packages designed to numerically analyze and document the acoustic phonetic properties of sound signals (1) animal (frog and bird) and (2) human (language). While students are asked for their impressionistic analyses of the sounds under consideration, they are reminded that impressions are not scientific in and of themselves, and require quantitative backing. The labs place a special emphasis on such quantitative analyses. The labs are available online (username: student; password: student):

http://linguistics.sjsu.edu/~dan/123/soundlab1.pdf

http://linguistics.sjsu.edu/~dan/123/Speechlab.pdf

Students are also given a choice to discuss whether non-human primates can be taught to use human language. During class, students watch various videos in which trained apes seemingly exhibit proper responses to verbal commands. Students are asked to discuss in their essays whether the videos indeed show that apes can learn to understand spoken language and if not, what additional evidence is needed to assess their alleged ability more rigorously. The exercise allows students to practice an important step in scientific investigations -- designing experiments to test a hypothesis based on its predictions.

Grades in Ling 123 have remained fairly stable over the last several years, always distributing themselves quite normally. The distribution of the grade from fall 2013 (section 03 and 05) and spring 2014 (section 03, 07, and 08) semesters, pooled (N=140), is as follows: A’s = 66 (47.2%), B’s = 44 (31.4%), C’s = 24 (17.1%), D’s = 6 (4.3%), F = 0 (0%). For a GE course, this distribution seems to be a healthy one.

(3) What modifications to the course, or its assessment activities or schedule, are planned for the upcoming year? (If no modifications are planned, the course coordinator should indicate this.)

Ling 123, especially due to the efforts of Drs. Koo and Kataoka, is now better integrated with web-based instruction, including new links to news, films, and other informational websites. These changes will be expanded upon over the next academic year.

Part 2

To be completed by the department chair (with input from course coordinator as appropriate):

(4) Are all sections of the course still aligned with the area Goals, Student Learning Objectives (SLOs), Content, Support, and Assessment? If they are not, what actions are planned?

Chair’s Comments: Yes, all of the 10 sections were well aligned with the area goals, student learning objectives, content, support, and assessment. In fact, the instructors have gone beyond what is expected of them by carefully aligning the content with the goals and objectives of the area in terms of not only the materials chosen and but also in terms of the assessment instruments used in the classes.