General Education Annual Course Assessment Form

Course Number/Title: Ling 123 Sound and Communication  GE Area: R

Results reported for AY 3026-2017  # of sections: 19  # of instructors: 5

Course Coordinator: Dr. Daniel Silverman  E-mail: daniel.silverman@sjsu.edu

Department Chair: Swathi M. Vanniarajan  College: Humanities & the 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 to <curriculum@sjsu.edu>, by the department chair, to the Office of Undergraduate Studies, with an electronic copy to the home college by October 1 of the following academic year.

Part 1

To be completed by the course coordinator:

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

This academic year, no single GELO was assessed. Instructors chose which GELO to cover.

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

Dr. VanBik evaluated GELO3 (“Apply a scientific approach to answer questions about the earth and environment”). He reports that his assigned essay on comparing and contrasting between the mating signals of Anurans and Passerines requires students to present comparing and contrasting analyses on the mating signals used by members of two different vertebrate orders—anurans (frogs and toads) and passerines (songbirds). He writes that in these analyses, students used scientific approaches, such as the vocal production mechanism in terms of anatomy and physiology, the acoustic structure and degree of complexity of the signals, and the adaptive function of the mating signals. Students’ analyses also need to include how the environment and the ecosystem of their habitats play a role in the success of the species survival.

Dr. Kataoka evaluated GELO 1: Students will be able to “demonstrate an understanding of the methods and limits of scientific investigation.” The assignments that she used to assess this objective included two essays. In Essay 1 students were prompted to explain the theory of sexual selection with illustrative examples and describe two empirical studies (one observational study and one experimental study) that provide support for the theory. In Essay 2 students were asked to compare and contrast cognition differences between humans and nonhuman primates based on findings from experimental studies with old world monkeys and chimpanzees. While the first essay focused on strength of controlled study on animal behaviors, the second essay focused on how a result from a given study may be interpreted in different ways, which is one of the main criticisms of scientific methods. These essays were worth 20% of the course grade. The scores of the two essays indicate that overall, students in all sections did very well in mastering this SLO. Out of 149
students, 136 students completed (some of them as late works) Essay #1. Among them, 26% (37) received As, 45% (61) received Bs, 17% (23) received Cs, and 14% (17) received Ds or lower grades. All students who received the grade lower than C had major point deduction as late work penalty. For Essay #2, 133 students completed it and many more students did so on time. Among them, 55% (73) received As, 26% (35) received Bs, 10% (13) received Cs, and 9% (12) received Ds or lower grades. Dr. Kataoka is satisfied with her results, and is especially pleased that students’ performance improved for essay #2: “It appears that in Essay #2, more students felt confident in explaining theories and empirical studies in their own words and complete the assignment successfully in time”; “Overall, Ling 123 has excellent structure with relevant materials. I have no suggestion for modifications”.

Dr. Donlay evaluated GELO2: “Students will be able to distinguish science from pseudo-science”. He points out that the course is structured to take a scientific approach to the analysis of sound communication systems in several animal species. More specifically, students read original scientific research with attention to how evidence is collected and analyzed, and what data can and cannot prove. Thus, every reading, lecture, assignment and discussion models the scientific method. He writes that since this is an upper-level course, it is likely that students have already had at least one course that uses the scientific method to analyze an issue, though they may not be familiar with the evolutionary approach emphasized in this class. The students in his two sections showed that they were able to understand and use this approach in their own work. For example, Essay 1 requires them to compare the mating signals of two very different species, frogs and songbirds, drawing on scientific readings. They are asked to discuss features that the species share as well as those that differ. They must discuss the mechanisms of the signals themselves and how they relate to the physical and social environments in which the species live. Students are graded on a 25-point scale. Of the 20 students in Section 6, 60% (12/20) earned a score of 22.5 or above (equivalent to an A), 35% (7/20) earned a score between 20 and 22 (equivalent to a B), and 5% (1/20) earned a score of 19 (equivalent to a C). No student scored below 19. The 25 students in Section 8 showed similar results. 64% (16/25) earned a score of 22.5 or above (equivalent to an A), 16% (4/25) earned a score between 20 and 22 (equivalent to a B), and 20% (5/25) earned a score between 17.5 and 19 (equivalent to a C). No student scored below 17.5. Thus, a large majority of the students in each section received an above-average grade, and many excelled. This indicates that Essay 1 is a useful instrument for testing student knowledge about GELO 2. Dr. Donlay sees little reason to modify course content at this time: “Previous assessments have indicated that GELO 2 has been well supported across all sections of the course. Although I teach and grade slightly differently than my peers, the basic assignment of Essay 1 is unchanged. Thus, it is not surprising to find that the evaluation of my own sections in Spring 2017 match this finding. I have no modifications to recommend at this point.”

Dr. Silverman also reports on GELO2, “Students will be able to distinguish science from pseudo-science”. He emphasizes that the entire course is based on classical Darwinian approaches to evolution, and offers little to no encroachment of pseudo-scientific or non-scientific approaches to the material. Darwinism, besides being the correct approach to evolution, is also very easy for students to comprehend, due to its simplicity and elegance. While never addressed outright, pseudo-scientific theories require more elaborate explanations for evolutionary patterns, a point which Dr. Silverman brings to the fore in his lectures. All lectures and as well as the two essays he assigns emphasize the role of Darwinian thought. The first of these essays has the following instructions: “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 have 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”. The ethological/evolutionary origins of the behaviors and traits are emphasized and reinforced in lectures, with little lip service paid to pseudoscience. The essay is worth fifteen points towards a course total of 100; Ten points are for content; five points are for form. Students continue to do an admirable job on this essay, as evidenced by their scores. In one section, scores were as follows: 15, 15, 15, 15, 14.5, 14, 13.5, 13.5, 13.5, 13, 13, 13, 12.5, 12.5, 12.5, 12, 11.5, 0. No students ventured into any accounts that might be deemed pseudo-scientific. These results are consistent with those of years past. Dr. Silverman concludes that Ling 123 is a well-structured course that does not require any significant modifications at this time, although, as course coordinator, he always welcomes minor tweaks and improvements that his colleagues may suggest.

(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.)

All instructors agree that Sound Communication rests on steady empirical and scientific ground, and none believes that the course should be modified in any significant way at this time.

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 (GELOs), Content, Support, and Assessment? If they are not, what actions are planned?

Yes, all sections aligned with the area Goals, Student Learning Objectives (GELOs), Content, Support and Assessment.

(5) If this course is in a GE Area with a stated enrollment limit (Areas A1, A2, A3, C2, D1, R, S, V, & Z), please indicate how oral presentations will be evaluated with larger sections (Area A1), or how practice and revisions in writing will be addressed with larger sections, particularly how students are receiving thorough feedback on the writing which accounts for the minimum word count in this GE category (Areas A2, A3, C2, D1, R, S, V, & Z) and, for the writing intensive courses (A2, A3, and Z), documentation that the students are meeting the GE GELOs for writing.

All sections respected the enrollment cap of 25 students and none exceeded 30 students.