Program: Neuroscience

Intended Outcome: Students will demonstrate basic competency in the fields of Biology, Chemistry, and Psychology

Means of Assessment: Student performance in BIOL 141-142, CHEM 110-112, and PSYC 110 will be systematically tracked.

Type of Assessment: Tracking Activity

Criteria for Success: Students will perform at/above institutional averages.

Results or Progress: With rare exceptions, students are succeeding.

Use of Results for Improvement: We continually attempt to identify students who are challenged by the rigors of the major and either find alternative career paths for them (e.g., Psychology) or help them acquire additional academic assistance. There is no thought of modifying the curriculum based upon outcomes. In order to improve advising, and, therefore, tracking of student progress, we have initiated a new assignment system in which students choose the faculty advisor that best fits their professional career interests. we will also examine the results of our electronic survey for indication where improvements can be made. The faculty involved in this program are consistently evaluating and tweaking the program to improve outcomes and student satisfaction.

Program: Neuroscience

Intended Outcome: Students will demonstrate mastery within foundation courses/advanced topics in the field of Neuroscience.

Means of Assessment: Student performance in required (NEUR 231, NEUR 358, NEUR 330, NEUR 493) and elective Neuroscience courses will be systematically checked. Rubrics will be used to evaluate evidence collected in the form of papers, oral presentations, lab notebooks, and lab reports.

Type of Assessment: Rubric

Criteria for Success: Students will achieve course grades in the A/B range.

Results or Progress: With rare exceptions, students are succeeding and scoring in the 80% range on average.

Use of Results for Improvement: Although these courses happen later in their academic career, we continue to attempt to identify students who are not up to the rigors of the major. Students by the mid/late stages of their academic careers typically are already aware of campus resources to support academic achievement. We are not considering modifications of the curriculum based upon student outcomes.

Program: Neuroscience

Intended Outcome: Students will obtain, evaluate, and utilize scientific information and critically evaluate empirical data to research questions in the field of Neuroscience.

Means of Assessment: The ability to acquire and interpret scientific information is at the core of the combined NEUR330 Research Methods In Neuroscience course. It is also an important element of our NEUR 111 course. Majors are required to take Undergraduate Research in Neuroscience (NEUR 493) in their Junior or Senior years. The ability to acquire and interpret scientific information is also at the core of this course. Rubrics will be used to evaluate lab notebooks, written and oral presentations, and poster presentation.

Type of Assessment: Rubric

Criteria for Success: We would like our majors to perform at the A/B level in NEUR330 and NEUR 493. Students should earn S grades in NEUR 111. We also expect increasing numbers of students to present research at regional and national meetings.

Results or Progress: With rare exceptions students are succeeding academically. Final paper average report average was a 86.2% (while revision for paper 1 and 2 were 83% and 81.2%, respectively). These papers included sections relevant to this outcome.

Use of Results for Improvement: We will continue to encourage research in a variety of ways and adjust our tactics in light of what we observe year to year. So far the training seems to be enough for the majority of students.

Program: Neuroscience

Intended Outcome: Demonstrate mastery of the scientific method.

Means of Assessment: Developing and testing a hypothesis is the capstone activity on NEUR330 and is the core of NEUR 493. The NEUR 330 Poster-Fest is open to all neuroscience faculty hereby providing feedback on how this goal is being achieved. Research with faculty is also systematically tracked with particular attention to coauthored student research presentations/publications. In addition rubrics will be used to evaluate written papers, poster presentation and lab notebooks.

Type of Assessment: Rubric

Criteria for Success: Students will regularly make coherent and scientifically rigorous research presentations. We will used guidelines in line with peer review articles such as the J.Neuroscience for format style.

Results or Progress: With rare exceptions, students are succeeding. Final paper average report average was a 86.2% (while revision for paper 1 and 2 were 83% and 81.2%, respectively).

Use of Results for Improvement: We are looking to incorporate the reading of primary literature at several levels of the program,inclucidng NEUR111 which is taken the first year to give students more experience at readings that elaborate the scientific method being used. We will be looking for the effects of the infusion of more research presentations in various classes even those not necessarily in lab format.

Program: Neuroscience

Intended Outcome: Effectively communicate neuroscience information orally.

Means of Assessment: Oral research presentations are given in at least three of the required courses of the major. In NEUR358 the presentation used primary research literature and in NEUR330 students were expected to stand with their posters and orally defend them, and in NEUR111 a brief presentation of a primary research article is given. Rubrics will be used to evaluate the presentations.

Type of Assessment: Rubric

Criteria for Success: Faculty should be able to ask incisive questions and have students effectively respond.

Results or Progress: With rare exceptions, students are succeeding. In NEUR111, 100% if the students presented. In NEUR330 100% of the students presented their work in poster fashion to the public. Neuroscience and other faculty found the students able to explain their work.

Use of Results for Improvement: We are constantly looking for means to improve our students' analytical and presentation skills. We will look to increase the number of presentations given by students over the entire program. We find that with practice presentations get better.

Program: Neuroscience

Intended Outcome: Effectively communicate neuroscience information in writing.

Means of Assessment: NEUR330 is designated as Writing Intensive and involves regular assessments of written laboratory reports. NEUR358 requires a research proposal or argumentative paper on recent Neuroscience issues and NEUR493 requires a research paper in the style of a J Neuroscience article. The J Neursocience format will be a guideline to set up a rubric to evaluate the papers.

Type of Assessment: Rubric

Criteria for Success: Students will perform in the A/B range on these assignments.

Results or Progress: With rare exceptions, students are succeeding. IN NEUR330 this year, the final paper average report average was a 86.2% (while revision for paper 1 and 2 were 83% and 81.2%, respectively). In NEUR358 in the fall, the average paper score was 86%.

Use of Results for Improvement: These reports will be watched for evidence that our increased emphasis on reading primary literature is having the desired effect on students' writing and scientific reasoning abilities. Generally while evaluating papers we find that source material is still not being used properly. We will work on increasing emphasis on this topic in all the courses including NEUR111.