

Degree Program Assessment Plan

Name of Department ___ Natural Sciences
 Name of Degree Program _Biotechnology_
 Date Plan Submitted ___ February 8, 2008 _____

Dean's Approval George Pincus
 (Dean's signature)

Notes: (1) All assessment measures are Direct (based on definitions in The University of Houston-Downtown Assessment Plan) except for Learning Outcome #6; (2) BIOL faculty will establish levels of competency and score results as "meets expectations," "exceeds expectations," or does not meet expectations;" (3) Each year, three Learning Outcomes will be evaluated (e.g., Spring, 2008 – Learning Outcomes 1-3; Fall 2008 – Learning Outcomes 4-6)

Learning Outcomes	Methods of Assessment	Time-Table 2006 -2012
1. Graduates will have a basic knowledge in discipline	Samples of final exams from first-year year and senior-level courses (at each grade level from A-D) will be read by 2-3 faculty. Papers from junior-level and senior-level courses will be evaluated for demonstration of fundamental knowledge in the areas of molecular & cell biology, genetics, and biological regulation	Sp 2008, Fall 2009, Fall 2011
2. Graduates will be able to effectively use the scientific method and scientific reasoning	Samples of papers (at each grade level from A-D) from junior-level and senior-level courses (esp. BIOL 4330 and MBIO 4310) will be evaluated 2-3 faculty for demonstration of scientific reasoning and applications of the scientific method.	Sp 2008, Fall 2009, Fall 2011
3. Graduates will have laboratory skills common to modern laboratories	Samples of lab reports and lab notebooks from BIOL 4230 and CHEM 4140 will be evaluated 2-3 faculty for demonstration of laboratory skills, in particular, proper notebook maintenance, computational skills for setting up experiments, and experimental design	Sp 2008, Fall 2009, Fall 2011
4. Graduates will be able to effectively communicate scientific information in writing and in oral presentations	(1) Papers from junior-level and senior-level courses will be evaluated by 2-3 faculty for competency in expository writing using WPE benchmarks. (2) Random samples of research posters from the Student Research Conference and other professional conferences will be evaluated by 2-3 faculty.	Fall 2008, Fall 2010, Fall 2012
5. Graduates will be able to carry out independent research	Random samples of student research notebooks and research posters from the Student Research Conference and other professional conferences will be evaluated by 2-3 faculty.	Fall 2008, Fall 2010, Fall 2012
6. Graduates will be able to work as part of a team	Faculty and students will complete a survey assessing teamwork in research projects, clubs, and lab courses wherein teamwork is emphasized.	Fall 2008, Fall 2010, Fall 2012