Sample Reports

Assessing Undergraduate Programs
XYZ Sciences

Student Learning Outcomes

1) Describe and apply basic information and concepts in the field of XYZ sciences
2) Conduct original XYZ sciences research and report results orally and in writing to scientific audiences
3) Apply ethical principles of the discipline in regard to human and animal subjects, environmental protection, use of sources, and collaboration with colleagues

These should be made available to students, prospective students, and faculty on a department website.

Measures	Outcome			Use of Information
Final exams of three basic XYZ Sciences courses (required of all majors)	1			Data are reported to the department annually by the instructors of three basic courses. The department supports instructors and makes any appropriate department-level actions and reports meeting outcomes to dean and provost. All data are reviewed as part of APR every seven years
In senior capstone course, students complete an original scientific experiment, write it up in scientific report format, and present their work to the class orally. The instructor(s) use a rubric to evaluate student work.	1	2	3	Senior capstone course instructors share students' rubric scores with the department. The department takes action as above. Program review as above.
Alumni survey asks how well alumni thought they learned to conduct and communicate scientific research, what aspects of the program helped them learn, and what suggestions they have for improvement in the program	1	2	3	Data reviewed by department for action, as above. Program review as above.
Sample of regional employers gathered two years ago to reflect how well out majors are doing and give advice to the department	1	2	3	As above.

http://chemistry.berkeley.edu/student_info/USLI/chemistry/

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Example: A department in the sciences examined its students' final exams in three required courses. It also interviewed regional employers about the preparation of its majors and surveyed recent alumni about strengths and weaknesses in the program. The advisory council of regional employers recommended that the majors had a good level of scientific knowledge but needed stronger skills in actually conducting research. Data from the alumni survey also mentioned this problem. The department instituted a required capstone course, which requires students to conduct original scientific research, and asked instructors of the course to report on student research and communication skills demonstrated by their capstone projects.

Sample Annual Report

BOSTON UNIVERSITY

Annual Report on Program Learning Outcomes Assessment

Program: *BA in XYZ Sciences*
Program Contact and Title: *Professor John Smith, Chair, jsmith@bu.edu*
College/School Contact and Title: Professor John Doe, Associate Dean, College of Arts and Sciences, jdoe@bu.edu
Date: *November 15, 2015*

1. **List the learning outcomes for the program:**
   Students completing the BA degree in XYZ Sciences will demonstrate the ability to

   • Describe and apply basic information and concepts in the field of XYZ Sciences
   • Conduct original research and report results orally and in writing to scientific audiences
   • Apply ethical principles of the discipline in regard to human and animal subjects, environmental protection, use of sources, and collaboration with colleagues

2. **Where are these outcomes published?**

   Provost's Program Learning Outcomes Assessment website: http://www.bu.edu/provost/resources/program-learning-outcomes-assessment/learning-outcomes-by-program/

   Department website: xxxxxxxxx.bu.edu

3. **How do you determine whether learning outcomes have been achieved?**

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The department will review final exams from three required foundation courses, XYZ 102, XYZ 202, and XYZ 302. The department also surveys its alumni and solicits information from a sample of regional employers about its graduates.

a. **What evidence do/will you gather?**

   i.   **What evidence do you currently have available to begin assessment, or what do you currently use?**
        Final exams (outcome 1), alumni surveys (outcomes 1, 2, and 3) and feedback from a sample of regional employers ((outcomes 1, 2, and 3)
   ii. **What tools might you like to implement and/or what materials would you like to gather in the future to improve program assessment?**
        In the future, we would like to systematically assess student laboratory work and their application of ethical principles (outcomes 1, 2 and 3)

b. **Who interprets the evidence?**
    At the annual assessment meeting on May 15, the department reviews data presented by the standardized test committee and by instructors from XYZ 102, 202, and 302

4. **Please list the dates of the most recent program reviews and indicate other venues in which you've discussed program learning outcomes:**

a. **External accreditation review, if applicable:**

b. **Internal (department, school/college, or overseer), if applicable:**

c. **Internal (Provost's academic program review, a.k.a. APR):**

d. **Other discussions:**

5. **Have you made curricular changes as a result of the information gleaned? If so, what?**
    Our advisory council of regional employers has recommended that our majors have a good level of scientific knowledge but need stronger skills in actually conducting research. Data from the alumni survey also mention this problem. In response, the department is instituting a required capstone course that will require students to conduct original scientific research. Instructors from this course will report to the department on student research and communication skills demonstrated by their capstone projects. In three years, when several cohorts of majors have passed through the capstone, we will again survey alumni and employers to see whether student skills have increased and we will review data from all years of the capstone projects.

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6. **All programs must have assessed all outcomes and acted upon their assessments by May 2017. Please project a schedule, year by year, for an annual cycle of assessment for your program.**

2014-2015   Review of final exam performance (Outcome 1)
Alumni survey (Outcomes 1, 2, and 3)
Consultation with advisory council of regional employers (Outcomes 1, 2, 3)

2015-2016   Review of final exam performance (Outcome 1)
Implementation of capstone course and review of capstone projects by instructors using rubric (Outcomes 1, 2, 3)

2016-2017   Review of final exam performance (Outcome 1)
Review of capstone projects by instructors using rubric (Outcomes 1, 2, 3)

2017-2018   Review of final exam performance (Outcome 1)
Review of all years of capstone projects (Outcomes 1, 2, 3)
Alumni survey (outcomes 1, 2, and 3)
Consultation with advisory council of regional employers (outcomes 1, 2, 3)

Adapted from Walvoord, Assessment Clear and Simple, 2nd ed., Jossey-Bass, 2010, Chapter 3

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