

Assessment for the B.A. degree in Biology

- **Have formal learning outcomes been developed?**

Formal learning outcomes were approved by the Department of Environmental and Health Sciences in March 2005 and are listed below.

The B.A. in the biology program seeks to produce graduates who:

- Critically read, evaluate, and synthesize information from relevant biological and environmental literature.
- Observe, identify, and measure the living and physical aspects of the natural environment using scientific methods.
- Are able to articulate in written, oral, and graphical form the characteristics of natural environments and human interactions with them.

- **Where are these learning outcomes published?**

- JSC Undergraduate catalog (published annually).
- On the Department of Environmental and Health Science's college web site at: <http://www.jsc.edu/Academics/CourseCatalogues/2009UGradCatalogue/index.htm>
- Selected learning outcomes are included in course syllabi.

- **Other than GPA, what data/evidence is used to determine that graduates have achieved the stated outcomes for the degree?**

- Grades on research projects embedded in upper level courses (Bio 3260, Bio 2340, and ENV 3220) and/or final grade on senior research projects.
- Course specific assessments evaluating basic knowledge in selected core courses (Bio 2145, Bio 2310, and Bio 2340), and any course in the electives in the B.A. degree program.
- Internship site supervisor evaluation.
- External evaluation of student poster presentations by supervisors and scientists not affiliated with JSC.

- **Who interprets the evidence? What is the process?**

- Evidence is evaluated by full time faculty in biology. Currently the College has two biologists, Drs. Robert Genter and Elizabeth Dolci.
- Recommendations are made to the department which then evaluates and makes a final recommendation.

- **What changes have been made as a result of using the data/evidence?**

- To highlight the importance of experiential learning and offer students opportunity to communicate their scientific achievements, each Fall and Spring students present the results of their internships and research projects to fellow students, faculty, and administration in a seminar format.
- To incorporate all of the learning objectives the EHS department initiated a department-wide research project on the Lamoille River Watershed in 2008.
- Renovations of the science building are in progress that will increase the number of student/faculty laboratories and classrooms.
- Enrollments in the B.A. program in biology have increased.

- Faculty are preparing an S-STEM proposal for submission to NSF in August 2010 which, if awarded, will assist in recruitment and retention. The award offers up to \$10,000 per year in scholarship monies to students.
- **Date of most recent program review.**
 - Policy 101 in 2007 was the last external review of the program.