

Program or Department Mission:

The mission of the Department of Biology is twofold: first, we are committed to educate students in the principle tenets of biology through structured inquiry and opportunities for individualized experiential learning. Second, we are committed to teaching ethical behavior in experimental design and practice to all of our students. The Department strives to provide the best educational opportunities possible for students to attain their academic goals and to facilitate faculty in scholarship in an atmosphere that encourages free exchange of ideas.

Plan		Report	
Intended goals, outcomes, or objectives	Means of Assessment & Criteria for Success	Summary & Analysis of Assessment Evidence	Use of Results
Demonstrate an overall knowledge of biology needed to teach in the secondary education system.	In the evolution class (capstone class) students take the national exam, MFAT. The students' scores for each subject area of the MFAT will be used for assessment. Specifically, -30% of the students will score in the 75 th percentile or better in each subject area. -50 % of the students will score in the 60 th percentile or better in each subject area. -60% of the students will score in the 50 th percentile or better in each subject area.	First means of assessment: MFAT 2007 (30 UVU students): Organismal Biology ave scores: 67 ± 12 -17% of the students scored in the 75 th percentile or better. -83 % of the students scored in the 60 th percentile or better. -90% of the students scored in the 50 th percentile or better. Cellular Biology ave scores: 69 ± 11 -30% of the students scored in the 75 th percentile or better. -83 % of the students scored in the 60 th percentile or better. -97% of the students scored in the 50 th percentile or better. Population biology and ecology ave scores: 65 ± 12 -13% of the students scored in the 75 th percentile or better.	Use of first means of assessment results: -The MFAT is only administered the evolution class in the spring of each year. In order to gain a more realistic picture of the performance of student enrolled in biology education we will make the following changes in testing: First we will essentially double the sample size by administering the MFAT in the fall as well as the spring. Secondly, the current scores are the results from the biology majors, secondary education majors and integrated studies majors, collectively. In the spring of 2009, the students from each of the three majors will be divided into separate cohorts in the reports of the MFAT test, distinguishing the scores according to majors. Hence, this will provide a more detailed picture of student performance according to

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		<p>-67 % of the students scored in the 60th percentile or better. -97% of the students scored in the 50th percentile or better.</p> <p>Molecular Biology and Genetics ave scores: 65 ± 13 -17% of the students scored in the 75th percentile or better. -73 % of the students scored in the 60th percentile or better. -87% of the students scored in the 50th percentile or better.</p> <p><u>MFAT 2008 average scores (32 UVU students):</u> Organismal Biology ave scores: 62 ± 12 -6% of the students scored in the 75th percentile or better. -52 % of the students scored in the 60th percentile or better. -72% of the students scored in the 50th percentile or better.</p> <p>Cellular Biology ave scores: 58 ± 12 -6% of the students scored in the 75th percentile or better. -50 % of the students scored in the 60th percentile or better. -75% of the students scored in the 50th percentile or better.</p> <p>Population biology and ecology ave scores: 59 ± 10 -3% of the students scored in the 75th percentile or better.</p>	<p>each major and give a more accurate assessment of the biology education degree.</p> <p>-The cumulative GPAs for the students taking the MFAT will be correlated to students taking the MFAT to better understand the results and determine if there is a cohort effect.</p> <p>-Current educational studies demonstrate that the development of critical thinking and problem solving skills, result in increased student performance on assessments. Our department plans to send a few faculty to science education conferences to attend presentations on these topics and then share this information with the rest of the department.</p>

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		<p>-47 % of the students scored in the 60th percentile or better.</p> <p>-81% of the students scored in the 50th percentile or better.</p> <p>Molecular Biology and Genetics ave scores: 55 ± 12</p> <p>-6% of the students scored in the 75th percentile or better.</p> <p>-37 % of the students scored in the 60th percentile or better.</p> <p>-59% of the students scored in the 50th percentile or better.</p>	
90% of UVSC students completing a Bachelors of Science Degree in Secondary Education in biology and who apply for employment teaching in junior high and high schools will successfully gain employment in secondary education within one year.	All of the students who complete the requirements for graduation with a B.S. degree in secondary education in biology and seek employment in secondary education will be tracked by the biology advisor. Information will be kept on the number of UVU who are successful in obtaining employment in secondary education vs the number who are unsuccessful. The percent will be compared to the goal of 90% placement	First means of assessment: 100% of all the UVU students completing their degree in Bachelors of Science Degree in Secondary Education in Biology were able to successfully gain employment.	Use of first means of assessment results: <p>-We easily met this goal. However, in order to continue to increase the quality of the education offered to students, the required biology electives were raised from 20 to 30 credit hours.</p> <p>-Current educational studies demonstrate that the development of critical thinking and problem solving skills, result in increased student performance on assessments. Our department plans to send a few faculty to science education conferences to attend presentations on these topics and then share this information with the rest of the department.</p>
Students who do gain employment in secondary education will demonstrate skill and knowledge in pedagogy.	A student who has successfully been employed in secondary education is required by the state board of education to take the	First means of assessment: -100 % of students employed who took the Praxis exam and scored above the state average. <p>-The UVU students' scores ranged</p>	Use of first means of assessment results: <p>-We easily met this goal. However, in order to continue to increase the quality of the education offered to</p>

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	Paxis II Pedagogy test after two years of employment. The results of this test will be submitted to UVU's department of secondary education and the department of biology will request that information from them.	from 154-200. -UVU secondary ed scores: 178.5 -State average: 149	students, the required biology electives were raised from 20 to 30 credit hours. -Current educational studies demonstrate that the development of critical thinking and problem solving skills, result in increased student performance on assessments. Our department plans to send a few faculty to science education conferences to attend presentations on these topics and then share this information with the rest of the department.
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