

Bachelor of Science in Mathematics Ay 2010/11			
Student Learning Outcomes	Assessment Methods & Criteria	Student Learning Evidence	Utilization of Evidence
The graduate will master the basic mathematics content of calculus, linear algebra, and differential equations.	Each graduate's application component in the MATH 4998 research paper will be evaluated. The graduate will score at least 75% on this evaluation.	The average score on this component was 91% with the lowest student mark being 85%. It was noted that some students were pressed to complete the research paper on time.	Even though the results were solid overall, the faculty decided to put measures in place in MATH 4998 that require students to get started on their research earlier in the semester.
The graduate will master the basic mathematics content of calculus, linear algebra, and differential equations.	Each graduate will take Educational Testing Services' Major Field Test in Mathematics. The department will use this exam for the first time in the fall of 2010, so the 2010-2011 results will be used primarily to establish a baseline.	The scores for the five graduates this year were 161, 155, 146, 137, and 137. The national percentiles for these scores were 62, 47, 28, 12, and 12, respectively. The Major Field Test includes many questions on topics other than calculus, linear algebra	The Senior Seminar course will be modified with emphasis placed on a review of calculus, linear algebra, and differential equations, in addition to the writing of a paper.
The graduate will be able to construct basic mathematical proofs.	Each graduate will score at least 75% on a portfolio of proofs. The portfolio will include at least one proof from each 3000 and 4000 level math theory course the student has taken. The assessment will be done in Math 4998 by a team of faculty, but the	Five faculty members graded the portfolio. The overall average was 93%, with the individual scores ranging from a low of 88% to a high of 97%.	The math faculty feels that no adjustments are needed at this time to ensure students are meeting the outcome.

<p>The graduate will be able to communicate mathematical ideas and results clearly.</p>	<p>Each graduate will score at least 75% on a joint faculty evaluation of his or her presentation of the Math 4998 research paper.</p>	<p>A panel of professors evaluated the students in this category. The average score was 86%. One student whose native language is not English made a 74% on the oral presentation and a 77% on the written report evaluation.</p>	<p>Students will be required to start their research earlier in the semester. This will allow faculty to give students added input. It will also allow students to finish their projects in time to rehearse their oral presentations.</p>
<p>The graduate will be able to communicate mathematical ideas and results clearly.</p>	<p>Each graduate will score at least 75% on an evaluation of his or her ability to use correct notation and terminology. The assessment will be done on the graduate's research project in Math 4998.</p>	<p>The class average on this component was 94% with the lowest individual score being 76%.</p>	<p>No changes are required at this time to help students meet this outcome.</p>
<p>The graduate will be able to communicate mathematical ideas and results clearly.</p>	<p>Each graduate will score at least 75% on a joint faculty evaluation of his or her use of professional literature on the MATH 4998 research paper.</p>	<p>Results of Assessment: The class average on this component was 91% with the lowest individual score being 85%.</p>	<p>No changes are required at this time to help students meet this outcome.</p>
<p>The graduate will be able to use technology effectively in mathematics.</p>	<p>An assignment will be given in Math 3085 that will require the use of a computer algebra system and/or programming with a graphing calculator. Each graduate will score at least 75% on this assignment.</p>	<p>Prof. Doucet, in his Linear Algebra class, gave his students a project to program a graphing calculator to perform the following tasks: compute the area of a triangle with given vertices, determine whether three points are collinear, compute the volume o</p>	<p>The results for the assignment were excellent. Nevertheless, the faculty will provide broader instruction in computer algebra system use next year. Assessment will involve more than just the programming of a graphing calculator.</p>

<p>The graduate will be prepared to find appropriate employment or to continue on to graduate school.</p>	<p>At least 75% of the graduates will have found employment or will have been accepted to graduate school within 6 months of receipt of their degree.</p>	<p>Five students graduated altogether in the 2010-2011 academic year. Of the three that graduated in the fall, two are entering the Central Louisiana Academic Residency for Teachers (CART) program to obtain teacher certification and a Master of Natural Science</p>	<p>The department will continue monitoring the employment activity and graduate studies pursuits of its graduates. The department will also continue its support of the CART program.</p>
<p>The graduate will be prepared to find appropriate employment or to continue on to graduate school.</p>	<p>Each graduate will indicate on a departmentally-made survey that he or she received appropriate advising about the mathematics degree program and on career paths. This will be done during degree checkout.</p>	<p>All five graduates completed the advising survey. Written comments indicated overall satisfaction with advising. Suggestions were made that students be warned in advance not to take freshmen and sophomore level classes unless they are required because t</p>	<p>The department has successfully renumbered MATH 2040 Fundamentals of Mathematics as MATH 3040. In addition, it has proposed to the Faculty Senate, the Academic Council, and the Admissions and Standards Committee that LSUA discontinue its university-wide</p>