

COURSE SLO ASSESSMENT REPORT, SCC

Department: Mathematics Course: Math 180H Calculus I (Honors)

Year: 2013 Semester: Fall

1) Outcome to be assessed	2) Means of assessment and criteria of success	3) Summary of data collected	4) Analysis of data	5) Plan of action/what to do next
<p><u>SLO 1:</u> Analyze functions analytically and graphically using limits, derivatives, definite and indefinite integrals</p> <p><u>SLO 2:</u> Apply basic definitions, properties and theorems of first semester Calculus to formulate elementary proofs and model and solve problems.</p>	<p>Analyze problems from the departmental embedded questions (on following pg)</p> <p><u>SLO 1:</u> Part 1, #9 (u-substitution with limits of integration)</p> <p><u>SLO 2:</u> Part 2, #6 (derivation of derivative of inverse tangent function)</p> <p>Rubric: 4 pts – clear, complete solution 3 pts – small mistakes not related to the concept, concept is understood 2 pts – mistakes, concept is partially understood 1 pt - some relevant work, concept not understood 0 pt – blank, no relevant work</p> <p>*A score of 3 or 4 is considered successful</p>	<p>Collected 21 exams</p> <p><u>SLO 1:</u> % successful Overall – 71.4%</p> <p><u>SLO 2:</u> % successful Overall – 76.2%</p>	<p>The honors section has achieved these SLOs, but just barely.</p> <p>The honors instructor contacts the students 2 weeks before school begins and gives them a algebra/trigonometry review assignment. When class starts, the honors section spends only one day on review, then begins the study of limits, derivatives, and integrals. Consequently, there is more time at the end of the semester for a thorough discussion of u-substitution.</p> <p>The derivation of derivatives of inverse trig functions is included on one of the mid-term exams in the honors section, so the students have previous experience with this topic.</p>	<p>Inform department of results</p>

COURSE SLO ASSESSMENT REPORT, SCC

Department: Mathematics Course: Math 180/180H Calculus I

Year: 2013 Semester: Fall

1) Outcome to be assessed	2) Means of assessment and criteria of success	3) Summary of data collected	4) Analysis of data	5) Plan of action/what to do next
<p><u>SLO 1:</u> Analyze functions analytically and graphically using limits, derivatives, definite and indefinite integrals</p> <p><u>SLO 2:</u> Apply basic definitions, properties and theorems of first semester Calculus to formulate elementary proofs and model and solve problems.</p>	<p>Analyze problems from the departmental embedded questions (on following pg)</p> <p><u>SLO 1:</u> #6 (u-substitution with limits of integration)</p> <p><u>SLO 2:</u> #8 (optimization)</p> <p>Rubric: 4 pts – clear, complete solution 3 pts – small mistakes not related to the concept, concept is understood 2 pts – mistakes, concept is partially understood 1 pt - some relevant work, concept not understood 0 pt – blank, no relevant work</p> <p>*A score of 3 or 4 is considered successful</p>	<p>Collected 106 exams</p> <p><u>SLO 1:</u> % successful Overall – 51.9%</p> <p><u>SLO 2</u> % successful Overall – 55.7%</p>	<p>Students seem to be scoring pretty much the same from semester to semester on integration.</p> <p>There are concerns that students are not reaching a higher level of success on u-substitution integration as this is their only technique of integration before Calculus II.</p> <p>The success on certain topics seemed to be instructor specific. This shows the stress on certain concepts per instructor.</p>	<p>Inform department of results</p> <p>Inform instructors who are teaching Math 180 next semester to stress topics that students are consistently weak on.</p> <p>Department needs to discuss and reinforce the expectations of skills that students should obtain before passing Calculus I to all instructors teaching this course.</p> <p>Instructors need to stress the amount and type of acceptable work shown for full credit to unify the calculus classes.</p>