

Assessment: Course Four Column



Courses (MATH) - Math

MATH 182:Calculus II

Course Outcomes	Assessment Measures	Results	Actions
<p>Integration technique - Integration techniques Course Outcome Status: Active Next Assessment: 2021-2022 Start Date: 10/24/2017</p>	<p>Exam - Exam Ch. 7 & 8 Criterion: Average assignment score 70 % or higher.</p>	<p>Reporting Period: 2016-2017 Criterion Met: Yes Students did well on Ch 7, Integrals and Transcendental Functions, however, the result of exam Ch 8 was not satisfactory.</p> <p>The average score of the exam Ch.7 was 84.1% and exam Ch 8 was 58.9. The overall average of both exams is 72.3 %. The average scores of assignment Ch 7 were 94.1, 60.1, 89.1 for section 7.1, 7.2, and 7.4 respectively. The average scores of assignment Ch 8 were 73.5, 86.4, 73.2, 97.1, 87.9, and 100% for section 8.1, 8.2, 8.3, 8.4, 8.5, and 8.8 respectively. (10/24/2017)</p>	<p>Action: Although the overall students' performance was fine, in the future semester, I would spend more time on the materials of Ch 8. The specific integration techniques like integration by parts, trigonometric integrals, and improper integrals need to be discussed more. (10/24/2017)</p>
<p>Convergence properties of infinite series - Convergence properties of infinite series Course Outcome Status: Active Next Assessment: 2021-2022 Start Date: 10/24/2017</p>	<p>Exam - Exam Ch. 10 Criterion: Average assignment score 70 % or higher.</p>	<p>Reporting Period: 2016-2017 Criterion Met: No Students didn't do well on the Ch 10 exam although students did all the assignments well. The average score on Ch 10 exam was 60 %. The average assignment scores were 88.4, 85.7, 77.9, 81.7, 100, 100, 83.2, 94.2, 100, and 98.3 % for section 10. 1 thorough 10.10 respectively. (10/24/2017)</p>	<p>Action: The identified areas of weakness are finding sums of series, Integral test, determining whether series converges or diverges, finding Taylor polynomials. I am going to emphasize more rigorous discussion on these topics in the upcoming semester. Please see the attachment for the details. (10/24/2017)</p>
<p>Solution of elementary differential equations - The solution of elementary differential equations</p>	<p>Exam - Exam Ch. 9 Criterion: Average assignment score 70 % or higher.</p>	<p>Reporting Period: 2016-2017 Criterion Met: Yes Most students performed well on this topic, First-Order</p>	

Course Outcomes	Assessment Measures	Results	Actions
<p>Course Outcome Status: Active Next Assessment: 2021-2022 Start Date: 10/24/2017</p>		<p>Differential Equations. The average score of the exam Ch 9 was 73.0 %. The average scores of the homework assignments were 91.1 and 79.1 for 9.2 and 9.3 respectively (10/24/2017)</p>	
<p>Calculus in polar coordinates - Application of calculus in polar coordinates Course Outcome Status: Active Next Assessment: 2021-2022 Start Date: 10/24/2017</p>	<p>Exam - Exam Ch. 11 Criterion: Average assignment score 70 % or higher.</p>	<p>Reporting Period: 2016-2017 Criterion Met: Yes Students' performance showed that they understood the concept well. Exam Ch 11 average was 79.6 %. The assignment average scores were 78.6, 59.5, 74, 75, 72.5, 75.7, and 84.0 % for section 11.1, 11.2, 11.3, 11.4, 11.5, 11.6, and 11.7 respectively (10/24/2017)</p>	<p>Action: The exam and assignment scores were turned good. However, the average score on the assignment 11.2 Calculus with parametric Curves was low. I am going to put more time to discuss this section and create example videos on this topic. (10/24/2017) Follow-Up: Out of four Calculus II learning objectives, students showed unsatisfactory performance on the second learning objective, Convergence properties of infinite series. According to the exam Ch 10 analysis, I was able to identify the area of weaknesses. They were finding sums of series, Integral test, determining whether series converges or diverges, finding Taylor polynomials. In the future semester, I am going to have more discussion on these areas for students' understanding. For learning objective #1, integration technique, students showed less competency on Ch 8 Techniques of Integration according to the exam. Students showed weakness on the integration techniques like integration by parts, trigonometric integrals, and improper integrals. In the last learning outcome, Application of calculus in polar coordinates, students showed the satisfactory</p>

<i>Course Outcomes</i>	<i>Assessment Measures</i>	<i>Results</i>	<i>Actions</i>
------------------------	----------------------------	----------------	----------------

competency except Calculus with parametric curves. I am planning to create more videos for better examples for upcoming semester. In addition, I also would like to utilize the techniques that I learned from the National Council of Teachers of Mathematics (NCTM) conference that I attended last year. For intervention activities, I will require students to interact and engage in the class no matter it is a live or online class. I will expect students to do high level thinking and reasoning and provide students' opportunities with repeated reasoning through repeated homework exercises. I also would like to utilize five representation techniques of math problems; visual, physical, symbolic, contextual and verbal. When these five factors of representations are used, students will develop high level thinking and reasoning for their math problem solving.
(10/24/2017)