

Curriculum Map for MA 1720
JCC Calculus II
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Revised Spring '07

Month	Content/Skills	Text Alignment	Assessment
Feb.	<p>Area between two curves, Area of a region between intersecting curves, integration as a cumulative process, volume of a solid of revolution using the disc method, volume of a solid of revolution using the washer method, volume of a solid with known cross sections</p> <p>Volume of a solid using the shell method, comparison of the disc vs. shell methods, finding arc length, finding the area of a surface of revolution</p>	Applications of Integration (CH 7 sections 7.1-7.4)	<p>Derive project #1 Homework and Quizzes</p> <p>Derive project #2 Ch 7 test Homework and Quizzes</p>
March	<p>Understanding the polar coordinate system, rewriting coordinates from polar to rectangular and vise-versa, sketching polar graphs, determining slope of a polar graph, identifying special polar graphs, area of a region bounded by polar graphs, intersection of polar graphs, surface of revolution of polar graphs</p> <p>Review basic integration rules, find an antiderivative using integration by parts, tabular shortcut to integration by parts, solve trigonometric integral involving powers of the 4 basic functions, use trigonometric</p>	<p>Polar Areas (CH 10 sections 10.4-10.5)</p> <p>Integration Techniques (CH 8 Sections 8.1-8.5)</p>	<p>Derive project #3 Homework and Quizzes</p> <p>Derive Project#4 Homework and Quizzes</p>

	substitution to solve an integral, model and solve real-life applications using integrals, understand the method of partial fraction decomposition, using partial fractions to integrate rational functions		
April	Integration using a table of integrals, using reduction formulas to integrate, evaluating improper integrals that have infinite limits of integration, understanding infinite discontinuity	Integration Techniques (CH 8 sections 8.6-8.8)	Derive #5 CH 8 test Homework and quizzes
May	Finding terms of a sequence, determining whether a sequence converges or diverges, using properties of sequences, convergent infinite series, properties of infinite geometric series, the n-th term test for Divergence, integral test for convergence, p-series and applications, alternate series tests, absolute vs. conditional convergence, ratio and root tests for convergence, Taylor and Maclaurin approximations, Taylor remainder, understand power series, differentiate and integrate power series,	Infinite Series (Ch 9 sections 9.1-9.8,9.10)	Derive project #6 Test Ch 9 Homework and Quizzes
June	No new content/skills	Ch 5 section 5.9 Ch 7 sections 7.1-7.4 Ch 8 all Ch 9 Sections 9.1-9.8, 9.10 Ch 10 sections 10.4-10.5	Review for final Final Exam for MA 1720