

Math 430 Spring 2006

Tuesday January 17 <i>Differentiation The Derivative Cont Differentiable Functions Sections 5-6</i>	Thursday January 19 <i>Differentiation The Chain Rule Section 7</i>	Tuesday January 24 <i>Differentiation Inverse Function Theorem Section 8</i>	Thursday January 26 <i>Differentiation Implicit Function Theorem Section 9</i>										
January 31 <i>Integration Integral over a Rectangle Existence of the Integral Sections 10-11</i>	February 2 <i>Integration Evaluation of the Integral Section 12</i>	February 7 <i>Exam 1 Differentiation and Integration Sections 5-12</i>	February 9 <i>Integration Integral over a Bounded Set Rectifiable Sets Sections 13-14</i>										
February 14 <i>Integration Improper Integrals Section 15</i>	February 16 <i>Change of Variables Partitions of Unity Change of Variables Theorem Sections 16-17</i>	February 21 <i>Change of Variables Diffeomorphisms in R^n Section 18</i>	February 23 <i>Change of Variables Proof of Change of Variables Theorem Section 19</i>										
February 28 <i>Change of Variables Applications Section 20</i>	March 2 <i>Exam 2 Integration and Change of Variables Sections 13-20</i>	March 7 <i>Manifolds Volume Mid-Semester Sections 21-22</i>	March 9 <i>Manifolds Manifolds in R^n Section 23</i>										
March 14 <i>Manifolds Boundary of a Manifold Integrating Scalar Functions Sections 24-25</i>	March 16 <i>Spring Break</i>	March 21 <i>Spring Break</i>	March 23 <i>Spring Break</i>										
March 28 <i>Differential Forms Multilinear Algebra Alternating Tensors Sections 26-27</i>	March 30 <i>Differential Forms Wedge Product Tangent Vectors Sections 28-29</i>	April 4 <i>Differential Forms Differential Operator Applications Sections 30-31</i>	April 6 <i>Differential Forms Action of a Differentiable Map Section 32</i>										
April 11 <i>Exam 3 Manifolds and Differential Forms Sections 21-32</i>	April 13 <i>Stokes' Theorem Integrating Forms over Parametrized Manifolds Sections 33-34</i>	April 18 <i>Stokes' Theorem Integrating Forms over Oriented Manifolds Sections 35-36</i>	April 20 <i>Stokes' Theorem Generalized Stokes Theorem Section 37</i>										
April 25 <i>Stokes' Theorem Applications to Vector Analysis Section 38</i>	April 27 <i>Closed and Exact Forms Poincaré Lemma Section 39</i>	May 2 <i>Closed and Exact Forms deRahm Groups Section 40</i>	Text: <i>Munkres "Analysis on Manifolds"</i>										
May 6 <i>Final Exam ?? Yes, but when ?? Sections 5-40</i>	<p><i>Math 430 Analysis on Manifolds TTh 9:30-10:45 Parrish, Spring 2006</i></p> <p>Grading Scheme:</p> <table> <tbody> <tr> <td>points</td> <td></td> </tr> <tr> <td>exams</td> <td>60 points</td> </tr> <tr> <td>homework</td> <td>20 points</td> </tr> <tr> <td>final exam</td> <td>20 points</td> </tr> <tr> <td>total:</td> <td>100 points</td> </tr> </tbody> </table>			points		exams	60 points	homework	20 points	final exam	20 points	total:	100 points
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