

# Math 1352

## 2005 Fall Semester

| Monday  | Tuesday  | Wednesday  | Thursday  | Friday   |
|---|--|--|---|--|
| <p style="text-align: center;"><i>August 29</i></p> <p>First Day of Classes</p>                           | <p style="text-align: center;"><i>August 30</i></p> <p>6.1: area between curves, area using vertical strips, area using horizontal strips</p>  | <p style="text-align: center;"><i>August 31</i></p>  | <p style="text-align: center;"><i>September 1</i></p> <p>6.2: method of cross sections, method of disks and washers, method of cylindrical shells</p>   | <p style="text-align: center;"><i>September 2</i></p>  |
| <p style="text-align: center;"><i>September 5</i></p> <p style="text-align: center;"><i>Labor Day</i></p> | <p style="text-align: center;"><i>September 6</i></p> <p>6.3: polar coordinates, polar graphs, intersection of polar curves, area for polar coordinates</p> <p style="text-align: center;"><b>HW01: Due 6.1-6.2</b></p>                              | <p style="text-align: center;"><i>September 7</i></p> <p style="text-align: center;"><b>WW01: Due 6.1-6.2</b></p>  | <p style="text-align: center;"><i>September 8</i></p> <p>6.4: arc length of a curve, area of a surface of rotation, polar arc length and surface area</p>   | <p style="text-align: center;"><i>September 9</i></p>  |
| <p style="text-align: center;"><i>September 12</i></p>  | <p style="text-align: center;"><i>September 13</i></p> <p>6.5: work, fluid pressure and force, centroids and moments in the plane, theorem of Pappus</p> <p style="text-align: center;"><b>HW02: Due 6.3-6.4</b></p>                                 | <p style="text-align: center;"><i>September 14</i></p> <p style="text-align: center;"><b>WW02: Due 6.3-6.4</b></p> | <p style="text-align: center;"><i>September 15</i></p> <p>6.6: future and present value of income flow, consumer and producer surplus, survival and renewal, blood flow through arteries</p>  | <p style="text-align: center;"><i>September 16</i></p> |
| <p style="text-align: center;"><i>September 19</i></p>  | <p style="text-align: center;"><i>September 20</i></p> <p>7.1-7.2: review of substitution, use of tables, (begin) integration by parts</p> <p style="text-align: center;"><b>HW03: Due 6.5-6.6</b></p>   | <p style="text-align: center;"><i>September 21</i></p> <p style="text-align: center;"><b>WW03: Due 6.5-6.6</b></p> | <p style="text-align: center;"><i>September 22</i></p> <p>7.2-7.3: integration by parts, repeated integration by parts, definite integration by parts, (begin) trigonometric substitution: powers of sine and cosine</p> <p style="text-align: center; border: 1px solid black; padding: 5px;">Review Session 7:00 pm</p> | <p style="text-align: center;"><i>September 23</i></p> |
| <p style="text-align: center;"><i>September 26</i></p>  | <p style="text-align: center;"><i>September 27</i></p> <p style="text-align: center;"><b>Exam I</b></p> <p style="text-align: center;">(6.1-6.2)</p>   | <p style="text-align: center;"><i>September 28</i></p>   | <p style="text-align: center;"><i>September 29</i></p> <p>7.3: trigonometric substitution: powers of secant and tangent, quadratic-form integrals</p>   | <p style="text-align: center;"><i>September 30</i></p> |
| <p style="text-align: center;"><i>October 3</i></p>   | <p style="text-align: center;"><i>October 4</i></p> <p>7.4: partial fraction decompositions, Heaviside method, integrating rational functions, rational functions of sine and cosine</p> <p style="text-align: center;"><b>HW04: Due 7.1-7.3</b></p> | <p style="text-align: center;"><i>October 5</i></p> <p style="text-align: center;"><b>WW04: Due 7.1-7.3</b></p>    | <p style="text-align: center;"><i>October 6</i></p> <p>7.5-7.6: strategies for integration, first-order linear differential equations, applications of first-order equations</p>  | <p style="text-align: center;"><i>October 7</i></p>    |

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|--|--|--|--|--|
| <p style="text-align: center;"><i>October 10</i></p> <p><i>Columbus Day (Observed)</i></p>   | <p style="text-align: center;"><i>October 11</i></p> <p>7.7: improper integrals with infinite limits of integration, improper integrals with unbounded integrands</p> <p style="text-align: center; border: 1px solid black; padding: 2px;"><b>HW05: Due 7.4-7.6</b></p>   | <p style="text-align: center;"><i>October 12</i></p> <p style="text-align: center; border: 1px solid black; padding: 2px;"><b>WW05: Due 7.4-7.6</b></p>  | <p style="text-align: center;"><i>October 13</i></p> <p>7.8: hyperbolic functions, derivatives and integrals of hyperbolic functions, inverse hyperbolic functions</p>   | <p style="text-align: center;"><i>October 14</i></p>   |
| <p style="text-align: center;"><i>October 17</i></p>   | <p style="text-align: center;"><i>October 18</i></p> <p>8.1: sequences, limits of sequences, bounded sequences, monotonic sequences, sandwich (squeeze) theorem for sequences</p> <p style="text-align: center; border: 1px solid black; padding: 2px;"><b>HW06: Due 7.7-7.8</b></p>   | <p style="text-align: center;"><i>October 19</i></p> <p style="text-align: center; border: 1px solid black; padding: 2px;"><b>WW06: Due 7.7-7.8</b></p>  | <p style="text-align: center;"><i>October 20</i></p> <p>8.2: definition of infinite series, general properties, geometric series, applications of the geometric series</p> <p style="text-align: center; border: 1px solid black; padding: 2px;">Review Session 7:00 pm</p>                    | <p style="text-align: center;"><i>October 21</i></p>   |
| <p style="text-align: center;"><i>October 24</i></p> <p>Mid-Semester Grades Due</p>  | <p style="text-align: center;"><i>October 25</i></p> <p style="text-align: center;"><b>Exam II</b></p> <p style="text-align: center;">(7.1-7.8)</p>  | <p style="text-align: center;"><i>October 26</i></p>   | <p style="text-align: center;"><i>October 27</i></p> <p>8.3: divergence test, series of non-negative numbers, integral test, p-series</p>  | <p style="text-align: center;"><i>October 28</i></p>   |
| <p style="text-align: center;"><i>October 31</i></p> <p style="text-align: center;"><i>Halloween</i></p> <p>Last Day to Withdraw</p> | <p style="text-align: center;"><i>November 1</i></p> <p>8.4-8.5: direct comparison test, limit comparison test, ratio test, root test</p> <p style="text-align: center; border: 1px solid black; padding: 2px;"><b>HW07: Due 8.1-8.3</b></p>   | <p style="text-align: center;"><i>November 2</i></p> <p style="text-align: center; border: 1px solid black; padding: 2px;"><b>WW07: Due 8.1-8.3</b></p>  | <p style="text-align: center;"><i>November 3</i></p> <p>8.6: alternating series test, error estimates for alternating series, absolute and conditional convergence, summary of tests</p>   | <p style="text-align: center;"><i>November 4</i></p>   |
| <p style="text-align: center;"><i>November 7</i></p>   | <p style="text-align: center;"><i>November 8</i></p> <p>8.7: convergence of a power series, term-by-term differentiation and integration of power series</p> <p style="text-align: center; border: 1px solid black; padding: 2px;"><b>HW08: Due 8.4-8.6</b></p>  | <p style="text-align: center;"><i>November 9</i></p> <p style="text-align: center; border: 1px solid black; padding: 2px;"><b>WW08: Due 8.4-8.6</b></p>  | <p style="text-align: center;"><i>November 10</i></p> <p>8.8: Taylor and Maclaurin polynomials, Taylor's theorem, Taylor and Maclaurin series, operations on Taylor and Maclaurin series</p>   | <p style="text-align: center;"><i>November 11</i></p> <p style="text-align: center;"><i>Veterans Day</i></p> |
| <p style="text-align: center;"><i>November 14</i></p>  | <p style="text-align: center;"><i>November 15</i></p> <p>9.1-9.2: introduction to vectors, vectors in component form, standard representations in the plane, coordinates in space, graphs in space, spheres and cylinders</p> <p style="text-align: center; border: 1px solid black; padding: 2px;"><b>HW09: Due 8.7-8.8</b></p> | <p style="text-align: center;"><i>November 16</i></p> <p style="text-align: center; border: 1px solid black; padding: 2px;"><b>WW09: Due 8.7-8.8</b></p> | <p style="text-align: center;"><i>November 17</i></p> <p>9.2-9.3: vectors in space, definition and basic properties of dot product, angle between vectors, direction cosines, projections</p> <p style="text-align: center; border: 1px solid black; padding: 2px;">Review Session 7:00 pm</p> | <p style="text-align: center;"><i>November 18</i></p>  |

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| Monday   | Tuesday  | Wednesday                                | Thursday   | Friday  |
|--|--|--|--|---|
| <i>November 21</i>   | <i>November 22</i><br><b>Exam III</b><br>(8.1-8.8)   | <i>November 23</i>                       | <i>November 24</i><br><i>Thanksgiving</i>  | <i>November 25</i>                                |
| Thanksgiving Holiday   |  |  |  |   |
| <i>November 28</i>   | <i>November 29</i><br><small>9.4: definition and basic properties of the cross product, geometric interpretation of the cross product, applications of the cross product: area and torque, triple scalar product</small> | <i>November 30</i>                       | <i>December 1</i><br><small>9.5: parametric equations, parametrizing a curve, lines in space</small> | <i>December 2</i>                                 |
| HW10: Due 9.1-9.3  |  | WW10: Due 9.1-9.3                        | Period of No Exams   |   |
| <i>December 5</i>  | <i>December 6</i><br><small>9.6: forms for the equation of a plane in space, vector methods for measuring distances in space</small>   | <i>December 7</i><br>Last Day of Classes | <i>December 8</i><br>Review Session 3:00 pm  | <i>December 9</i><br>University Final Exams Begin |
| HW11: Due 9.4-9.5  |  | WW11: Due 9.4-9.5                        | Period of No Exams   |   |
| <i>December 12</i><br><b>Departmental Final Exam (10:30)</b> | <i>December 13</i>   | <i>December 14</i>                       | <i>December 15</i>   | <i>December 16</i>                                |
| <i>December 19</i>   | <i>December 20</i>   | <i>December 21</i>                       | <i>December 22</i>   | <i>December 23</i>                                |
| <i>December 26</i>   | <i>December 27</i>   | <i>December 28</i>                       | <i>December 29</i>   | <i>December 30</i>                                |