MA 114011 Fall 2012 Calendar of Events

|  | Lecture <br> Recitation | Class activity | Due Dates | Optional Textbook Exercises |
| :---: | :---: | :---: | :---: | :---: |
|  | Wed，22－Aug | Infinity，sequences，and limits |  | 8．1－12，13，15，21，22，39，43，46，48 |
|  | Thur，23－Aug | Pretest，Worksheet \＃1 |  |  |
|  | Fri， 24 Aug | Review of Continuity，Differentiation and Optimization | WW 01 | $\begin{aligned} & \hline 2.4-9,10,36,52,54 \\ & \text { p } 248-16,34,35,61,78 \\ & \hline \end{aligned}$ |
| $N$ <br> N <br> U <br>  | Mon，27－Aug | Optimization，implicit differentiation，related rates |  | $\begin{aligned} & 4.1-20,25,40,42 \\ & 4.6-8,16,21,30,32,57 \end{aligned}$ |
|  | Tues，28－Aug | Pretest，Worksheet \＃1 |  |  |
|  | Wed，29－Aug | Riemann Sums |  | 5．2－5，6，14，27，31，43，48 |
|  | Thurs，30－Aug | Worksheet \＃2：Riemann Sums | WW 02 |  |
|  | Fri，31－Aug | Definition and properties of definite integrals |  | 5．3－23，27，54，65，69，70 |
|  | Mon，3－Sept | Labor Day |  |  |
|  | Tues，4－Sept | Worksheet \＃2：Riemann Sums |  |  |
|  | Wed，5－Sept | Fundamental Theorem of Calculus |  | 5．4－2，12，14，18，20，28 |
|  | Thurs，6－Sept | Worksheet \＃3： | WW 03 |  |
|  | Fri，7－Sept | Integration by Substitution and by Parts |  | $\begin{aligned} & 5.5-22,52,59,60,70 \\ & 5.6-4,10,12,13,44 \\ & \hline \end{aligned}$ |
|  | Mon，10－Sept | Trig substitutions and integration of rational functions |  | $\begin{aligned} & \text { 5.7-4,6,11,12,14,18 } \\ & \text { G-11,18,24,26 } \\ & \hline \end{aligned}$ |
|  | Tues，11－Sept |  |  |  |
|  | Wed，12－Sept | Partial fractions |  | 5．7－19a，22，24，26，34 |
|  | Thurs，13－Sept |  | WW 04 |  |
|  | Fri，14－Sept | Improper Integrals |  | 5．10－6，8，13，20，41，49，55 |
|  | Mon，17－Sept | Review |  |  |
|  | Tues，18－Sept | Review |  |  |
|  | ＊＊＊＊＊T | es，18－Sept Exam 1 （5：00－7：00 PM）Yo | om will be | igned＊＊＊＊＊ |
|  | Wed，19－Sept | Volume and arc length |  | $\begin{aligned} & 6.2- \\ & 6.4-23,25,29,32 \end{aligned}$ |
|  | Thurs，20－Sept |  | WW 05 |  |
|  | Fri，21－Sept | Surface area and the dam problem |  | Handouts |
| $\begin{aligned} & 0 \\ & \text { پ } \\ & \text { む } \end{aligned}$ | Mon，24－Sept | Mean Value Theorem，Average value |  | 6．5－9，1516，17，20 |
|  | Tues，25－Sept |  |  |  |
|  | Wed，26－Sept | Force and work problems |  | 6．6－3，7，11，15，19，25，27，40 |
|  | Thurs，27－Sept |  | WW 06 |  |
|  | Fri，28－Sept | Parametric curves |  | 1．7－26，35，42，44 |
| $\begin{aligned} & \text { N } \\ & \text { \# } \\ & \text { U } \end{aligned}$ | Mon，1－Oct | Polar and other coordinates |  | $\begin{aligned} & \text { H. } 1-48,50,56,64 \\ & \text { H. } 2-5,6,17,22,24,28,36 \\ & \hline \end{aligned}$ |
|  | Tues，2－Oct |  |  |  |
|  | Wed，3－Oct | Calculus of parametric curves，curvature |  | $\begin{aligned} & 3.4-79,80,82,85,90 \\ & 6.1-31,33,35,38,42 \end{aligned}$ |
|  | Thurs，4－Oct |  | WW 07 |  |
|  | Fri，5－Oct | Series and sigma notation |  | 8．2－10，14，16，18，46，50，57，59 |
| $\begin{aligned} & \infty \\ & \text { u } \\ & \text { む } \end{aligned}$ | Mon，8－Oct | Convergence，nth term test，integral test |  | 8．3－2，6，8，31 |
|  | Tues，9－Oct |  |  |  |
|  | Wed，10－Oct | $p$－series，alternating series |  | $\begin{aligned} & 8.3-13,14,34 \\ & 8.4-3,4,6,8,9,13 \\ & \hline \end{aligned}$ |
|  | Thurs，11－Oct |  | WW 08 |  |
|  | Fri，12－Oct | Comparison，limit comparison，absolute convergence |  | $\begin{aligned} & 8.3-10,12,18,19,22 \\ & 8.4-21,22,23,24,31,34 \\ & \hline \end{aligned}$ |
| $\begin{aligned} & \text { の } \\ & \text { U } \\ & \text { U } \end{aligned}$ | Mon，15－Oct | Review |  |  |
|  | Tues，16－Oct | Review |  |  |
|  | ＊＊＊＊＊T | Tues，16－Oct Exam 2 （5：00－7：00 PM）Your room will be assigned $* * * * *$ |  |  |
|  | Wed，17－Oct | Ratio test |  | 8．4－35，36，37，40，42 |
|  | Thurs，18－Oct |  | WW 09 |  |
|  | Fri，19－Oct | Second derivative test |  | Handouts |
|  | Mon，22－Oct | Power series and properties |  | $\begin{aligned} & 8.5-4,7,10,22,24,27,31,33,35 \\ & 8.6-4,8,10,11,32 \end{aligned}$ |
|  | Tues，23－Oct |  |  |  |

\begin{tabular}{|c|c|c|c|c|}
\hline \& Wed, 24-Oct \& Taylor series \& \& $$
\begin{aligned}
& 8.7-3,6,10,15,18,22,24,28,34, \\
& 55,56,57
\end{aligned}
$$ \\
\hline \& Thurs, 25-Oct \& \& WW 10 \& \\
\hline \& Fri, 26-Oct \& Using Taylor series \& \& 8.8-4,5,6,14,19,20,31 \\
\hline \multirow{5}{*}{} \& Mon, 29-Oct \& Fourier series I \& \& Handouts \\
\hline \& Tues, 30-Oct \& \& \& \\
\hline \& Wed, 31-Oct \& Fourier series II \& \& Handouts \\
\hline \& Thurs, 1-Nov \& \& WW 11 \& \\
\hline \& Fri, 2-Nov \& Differential equations and growth/decay problems \& \& 7.1-2,5,9,11,12 \\
\hline \multirow[t]{5}{*}{$$
\begin{aligned}
& \text { N } \\
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\end{aligned}
$$} \& Mon, 5-Nov \& Separation of variables, linear models \& \& $$
\begin{aligned}
& 7.3-2,3,4,8,10,12,21,22,34, \\
& 42,44,46,51
\end{aligned}
$$ \\
\hline \& Tues, 6-Nov \& \& \& \\
\hline \& Wed, 7-Nov \& Hyperbolic functions \& \& Handouts \\
\hline \& Thurs, 8-Nov \& \& WW 12 \& \\
\hline \& Fri, 9-Nov \& Inverse hyperbolic functions \& \& Handouts \\
\hline \multirow{6}{*}{} \& Mon, 12-Nov \& Review \& \& \multirow[t]{3}{*}{} \\
\hline \& Tues, 13-Nov \& Review \& \& \\
\hline \& \multicolumn{3}{|r|}{***** Tues, 13-Nov, Exam 3 (5:00-7:00 PM) Your room will be assigned *****} \& \\
\hline \& Wed, 14-Nov \& More linear models: Newton's Law of Cooling, Falling Objects \&  \& Handouts \\
\hline \& Thurs, 15-Nov \& \& WW 13 \& \\
\hline \& Fri, 16-Nov \& Series solutions \& \& Handouts \\
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3} \& Mon,19-Nov \& Logistic growth, escape velocity \& \& 7.5-3,4,8,10,15,17,19 \\
\hline \& Tues, 20-Nov \& \& \& \\
\hline \& \multicolumn{4}{|c|}{Thanksgiving Break - Academic Holiday} \\
\hline \multirow[t]{5}{*}{1

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3} \& Mon, 26-Nov \& Slopefields and Euler's Method \& \& 7.2-21,22,24,27 \\
\hline \& Tues, 27-Nov \& \& \& \\
\hline \& Wed, 28-Nov \& Nonlinear systems: Predator-Prey \& \& 7.6-1,2,4,10,11 \\
\hline \& Thurs, 29-Nov \& \& WW 14 \& \\
\hline \& Fri, 30-Nov \& Nonlinear Systems: SIR \& \& Handouts \\
\hline \multirow[t]{5}{*}{0
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d
U} \& Mon, 3-Dec \& Complex numbers \& \& $\mathrm{I}-10,12,14,26,28,37,38,39,50$ \\
\hline \& Tues, 4-Dec \& \& \& \\
\hline \& Wed, 5-Dec \& Oscillations \& \& Handouts \\
\hline \& Thurs, 6-Dec \& \& WW 15 \& \\
\hline \& Fri, 7-Dec \& Damped oscillations \& \& Handouts \\
\hline \& \multicolumn{2}{|r|}{***** Thur, 13-Dec, Exam 4 (8:30-10:30 PM)} \& \multicolumn{2}{|l|}{Your room will be assigned $\quad * * * * *$} \\
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