## Single Variable Calculus II

Math 32 Section 10
Summer 2008

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Textbook: Calculus. Early Transcendentals. by James Stewart, 6th Edition, Brooks/Cole, 2008

| GRading Policy: |  |  |  | GUIDELINES: |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 3 Exams (lowest dropped): | $50 \%$ |  | A: | $100-90 \%$ |  |
| 3 Collected homeworks: | $20 \%$ |  | B: | $89-80 \%$ |  |
| 1 Comprehensive Final: | $30 \%$ |  | C: | $79-70 \%$ |  |
| Total: | $100 \%$ |  | D: | $69-60 \%$ |  |


|  | Location | Day | Time |
| :---: | :---: | :---: | :---: |
| Math 32.10 | Old Main 305 | M, Tu, W, Th | $06: 00-07: 30 \mathrm{PM}$ |

- If for some reason you are unable to take an exam at the announced time, you must notify me in advance with an appropriate excuse. Otherwise a zero will be recorded.
- Homework must be handed in on the announced day.
- Your final grade will be based on the above Policy \& Guidelines. For example, if you score $90 \%$ on all homeworks and exams, you will receive a Course Grade of A. After all the exams and homeworks are totaled, the cutoffs may be adjusted slightly (e.g., an $89 \%$ course average will get an A , but the cutoffs will not be raised).


## - Calculators are not allowed on exams.

- Homework
- The best way to learn the material and do well on exams is to do as many of the Homework Exercises as possible. Do a little bit every day.
- Selected homework exercises will be collected and graded, but after each lecture, you are strongly encouraged to work all of the exercises indicated on page 2.


## Homework Exercises

For Stewart, Ed. 6: Calculus. Early Transcendentals

| Lecture No. | Date | Section | Topic | Homework |
| :---: | :---: | :---: | :---: | :---: |
| 1 | May 19 | 6.1 | Area between curves | p 420: 3,6,9,..., 30 |
| 2 | May 20 | 6.2 | Volumes | p 430: 3,6, 9, ..., 30 |
| 3 | May 21 | $\begin{aligned} & \hline 6.3 \\ & 6.5 \end{aligned}$ | Volumes by cylindrical shells Average value of a function | $\begin{aligned} & \text { p 436: 3,6, 9, ... 24; 29,30, 39, } 41 \\ & \text { p 445: 36,6,9,13, } 17 \end{aligned}$ |
| 4 | May 22 | 7.1 | Homework I collected Integration by parts | p 457: 3,6,9,...,36; 45, 48 |
|  | May 26 |  | Holiday |  |
| 5 | May 27 | $\begin{aligned} & \hline 7.2 \\ & 7.3 \\ & \hline \end{aligned}$ | Integrals with trig functions Trig substitution | $\begin{aligned} & \hline \text { p 465: } 3,6,9, \ldots, 48 ; 68 \\ & \text { p 472: } 3,6,9, \ldots, 33 \\ & \hline \end{aligned}$ |
| 6 | May 28 | 7.4 | Integrals of rational functions | p 481: 3,6,9,...,48; 55, 56 |
| 7 | May 29 | 7.5 | Exam 1 ( 50 min ) <br> Integration strategies | p 488: 3,6,9,..., 81 |
| 8 | Jun 02 | 7.7 | Approximating integrals | p 505: 7,9,11 |
| 9 | Jun 03 | 7.8 | Improper Integrals | p 515: 3,6,9,..., 42; 51, 54, 69 |
| 10 | Jun 04 | $\begin{aligned} & 8.1 \\ & 8.2 \\ & \hline \end{aligned}$ | Homework II collected <br> Arc length <br> Surface of revolution | $\begin{aligned} & \text { p 530: } 3,6,9, \ldots, 18 \\ & \text { p 537: } 3,6,9,11,12,15 ; 25 \\ & \hline \end{aligned}$ |
| 11 | Jun 05 | $\begin{gathered} \hline 8.3 \\ 10.1 \end{gathered}$ | Applications Parametric Curves | $\begin{aligned} & \text { p 547: } 3,6,9,11,25,27,29 \\ & \text { p 626: } 3,6,9, \ldots, 24 ; 31 \\ & \hline \end{aligned}$ |
| 12 | Jun 09 | $\begin{aligned} & 10.2 \\ & 10.3 \\ & \hline \end{aligned}$ | Calculus of parametric curves Polar coordinates | $\begin{aligned} & \text { p 636: 3,6, 12, 15, 18; 25, 41, } 42 \\ & \text { p 647: } 3,6,9, \ldots, 45 ; 57,61 \\ & \hline \end{aligned}$ |
| 13 | Jun 10 | 10.4 | Exam II ( 50 min ) <br> Area \& length in polar coord. | p 653: 3,6,9,..,48 |
| 14 | Jun 11 | $\begin{aligned} & \hline 11.1 \\ & 11.2 \\ & \hline \end{aligned}$ | Sequences Series | p 684: $3,6,9, \ldots, 45,61,64$ p 694: $3,6,9, \ldots, 33,42,45,49$ |
| 15 | Jun 12 | $\begin{aligned} & \hline 11.3 \\ & 11.4 \\ & \hline \end{aligned}$ | Integral test Comparison test | p 703: $3,6,9, \ldots, 30$ p 709: $3,6,9, \ldots, 36 ; 43,44$ |
| 16 | Jun 16 | 11.5 | Alternating series | p 713: 3,6,9,..., 18; 24 |
| 17 | Jun 17 | 11.6 | Exam III ( 50 min) <br> Abs. convergence, ratio and root tests | p 719: 3,6,9,.., 33 |
| 18 | Jun 18 | 11.7 | Strategies for convergence of series | p 722: 3,6,9,..., 36 |
| 19 | Jun 19 | 11.8 | Power series | p 727: 3,6,9,...,18; 24, 27, 32 |
| 20 | Jun 23 | 11.9 | Functions as power series | p 733: 3,6,9,...,24; 35 |
| 21 | Jun 24 | 11.10 | Homework III collected <br> Taylor and Mac Laurin series | p 746: 3,6,9,..., 33; 55. 59, 63, 66, 68 |
| 22 | Jun 25 | 11.11 | Application of Taylor's series | p 755: 3,6,9,..., 21 |
| 23 | Jun 26 |  | Final Comprehensive Exam |  |

Instruction key for assignments

| $1,3,5, \ldots, 2 N+1$ | $\Longrightarrow$ | Do every odd problem |
| :---: | :---: | :---: |
| $3,6,9, \ldots, 3 N$ | $\Longrightarrow$ | Do every third problem |

