COURSE: Math 1B-27 Calculus $\quad$ QUARTER: Winter 2019
DAY: TuTh INSTRUCTOR: Millia Ison
TIME: $4-6: 15 \mathrm{p} \quad$ OFFICE PHONE: 864-5659
EMAIL: isonmillia@fhda.edu
OFFICE NUMBER: S76e

OFFICE HOUR : MTuWTh: 6:20-7:10 pm.
COURSE PREREQUISITES: Math 1A, or equivalent course with a grade "c" or better.
TEXT: Calculus: Early Transcendentals, by James Stewart, 8th edition.
ENROLL WEB ASSIGN : Class code: deanza 87488929

EQUIPMENT: A graphic calculator or a computer with graph capability is required.

## GRADING:

Homework -----75 points
13 quizzes -------75 points
3 midterms --- 300 points
Final exam ---- 150 points
Total
------------ 600 points

$|$| A: $93 \%-96 \%, 558-600 \mathrm{pts}$ | $\mathrm{C}+: 76 \%-79 \%, 456-479 \mathrm{pts}$ |
| :---: | :---: |
| A- $: 90 \%-92 \%, 540-557 \mathrm{pts}$ | C: $70 \%-75 \%, 420-455 \mathrm{pts}$ |
| B+: $87 \%-89 \%, 522-539 \mathrm{pts}$ | D: $60 \%-69 \%, 360-419 \mathrm{pts}$ |
| B: $83 \%-86 \%, 498-521 \mathrm{pts}$ | F: $0 \%-59 \%, 0-359 \mathrm{pts}$ |
| B-: $80 \%-82 \%, 480-497 \mathrm{pts}$ |  |

Homework Points: You need to do your homework on a regular bases. However all homework is due on March 28. Total points on WebAssign is 787(subject to change). Out of which, 700 points are required (subject to change). If you have 700 , you earn 75 points (full credit) toward your grade. If you have total of 750 , then $750 / 700 \quad 1.07$, that is $107 \%, 107 \% \quad 75 \quad 80$, you have 80 points for homework, which is 5 points extra credit. Maximum you can earn is 84 points for homework. If you complete all problems correctly, you may earn up to 9 extra credit points.

Quiz Points: 6 points each quiz. [5per 2 quizzes each week ( 1 quiz in an exam week). There are 18 quizzes this quarter. Your 2 lowest quiz scores will be dropped. If you have $100 \%$ on all quizzes, then $166=96$ points. 75 points is required, points over 75 are extra credit.

EXAM POINTS: 100 points each. Dates are on the calendar the next page.Scheduled dates are subject to change. NO make-up midterm exams. Absences are counted as 0's. If the percent of your final exam score is higher than some of your exams, it will replace the lowest exam score. It can only replace 1 out of 3 exams. For example: your lowest exam score is $73 \%$, your achieve $120 / 150$ on the final exam, which is $80 \%$. Then the 73 on the exam is replaced by 80 . If all your 3 exams are higher than your final exam percentage, then your exam scores will not change. People doing better on the final will help their overall score.

FINAL EXAM: Thursday, March 28, $4-6 \mathrm{p}$
Fail to take the final exam, you will receive " $F$ " for your grade.
Exams and quizzes are to test your understanding of the classroom discussions and homework assignments. Cheating of any form on quizzes, midterm exams or final exam will be grounds for disciplinary action.

IMPORTANT DATES: Sunday, Jan. 20 --- Last day to drop without grade on your record. Friday, Mar. 1 --- Last day to drop with a "W".

ATTENDANCE: Regular attendance is required. Frequent absences will result in a "W" or "F" for the class. The last day for you to drop the class is March 1. After that day, you will receive a grade.

Text: Stewart 8 $^{\text {th }}$ edition
MATH 1B-27 Winter 2019 Calendar
Room E36

| Chapter | SEC | Topics |  | Monday | Tuesday | Wednesday | Thursday | Friday |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Integrals | $\begin{aligned} & 5.1 \\ & 5.2 \\ & 5.3 \end{aligned}$ | Areas and Distances <br> The Definite Integral <br> The Fundamental Theorem of Calculus | Jan | 7 | $5.1,5.2^{8}$ | 9 | $5.2,5.3^{10}$ | 11 |
|  | $\begin{aligned} & 5.4 \\ & 5.5 \end{aligned}$ | Indefinite Integrals and the Net Change Thm The Substitution Rule | Jan | 14 | $5.3,5.4^{15}$ | 16 | $\begin{array}{ll} \hline 17 \\ 5.5 & \\ \hline \end{array}$ | 18 |
| Hyp/Invhyp | 3.11 | Hyperbolic and Inverse Hyperbolic Funtions |  |  |  |  |  |  |
| Appendix G |  | $\ln$ as a def. integral \& exp as the inv of $\ln$. | Jan | M L King Day <br> Holiday | $3.11^{22}$ | 23 | suppl ${ }^{24}$ | 25 |
| $\begin{gathered} \text { Applications } \\ \text { of } \\ \text { Integrals } \end{gathered}$ | $\begin{aligned} & 6.1 \\ & 6.2 \end{aligned}$ | Areas Between Curves Volumes |  |  |  |  |  |  |
|  | 6.3 | Volume by Cylindrical Shells | Jan | 28 | $29$ <br> Review <br> Exam 1 | 30 | $6.1,6.2^{31}$ | 1 |
|  | 6.4 6.5 | Work <br> Average Value of a Function | Feb |  |  |  |  |  |
| Techniques of Integration | $\begin{aligned} & \hline 7.1 \\ & 7.2 \\ & 7.3 \\ & 7.4 \\ & 7.5 \\ & 7.6 \\ & 7.7 \\ & 7.8 \\ & \hline \end{aligned}$ | Integration by Parts <br> Trigonometric Integrals <br> Trigonometric Substitution <br> Integration of Rat'l Funct'ns by Partial Fractions <br> Strategy for Integration <br> Integration Using Tables and Computer <br> Approximate Integration <br> Improper Integrals | Feb | 4 | $6.3,6.4^{5}$ | 6 | $6.4,6.5^{7}$ | 8 |
|  |  |  | Feb | 11 | $7.1,7.2^{12}$ | 13 | $7.2,7.3^{14}$ | Lincoln's Birthday <br> Holiday |
|  |  |  | Feb | Washington's Bday <br> Holiday | $19$ <br> Review <br> Exam 2 | 20 | $7.4,7.5^{21}$ | 22 |
| Further Applications | $\begin{gathered} \hline 8.1 \\ 10.2 \\ 8.3 \\ 8.5 \\ \hline \end{gathered}$ | Are Length <br> Arclength of Parametric Equations <br> Applications to Physics and Engineering Probability |  |  |  |  |  |  |
|  |  |  | Feb <br> Mar | 25 | $7.6,7.7^{26}$ | 27 | $7.8$ | last day to drop w/W |
| Differential Equations | $\begin{aligned} & 9.1 \\ & 9.2 \\ & 9.3 \end{aligned}$ | Modeling with Differential Equations 9.2 Direction Fields and Euler's Method 9.3 Separable Equations | Mar | 4 | $8.1,10.2^{5}$ | 6 | $8.3 \begin{aligned} & 7 \\ & \end{aligned}$ | 8 |
| All homework assignments and due dates are listed on WebAssign. |  |  | Mar | 11 | $12$ <br> Review <br> Exam 3 | 13 | $8.5{ }^{14}$ | 15 |
|  |  |  | Mar | 18 | $9.1,9.2^{19}$ | 20 | $9.3,9.4^{21}$ | 22 |
| do. If you don't master the material well afterdoing WebAssign, work with more of the similar problems in the text. |  |  | Mar | 25 | 26 | 27 | $28$ <br> Final $4 p-6 p$ | 29 |

## Student Learning Outcome(s):

*Analyze the definite integral from a graphical, numerical, analytical, and verbal approach, using correct notation and mathematical precision.
*Formulate and use the Fundamental Theorem of Calculus.
*Apply the definite integral in solving problems in analytical geometry and the sciences.

