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Day to      Hour      Topic                        Book section      Tue Thu
day
syllabus:             1. Geometry of Space              9/22-9/26

            1            - coordinates                    9.1    |
                         - distance                              |
            2            - vectors                         9.2   -+
                         - dot product                     9.3   |
            3            - cross product and planes        9.4   |

                      2. Functions and Graphs           9/29-10/3

            1            - lines and planes                9.5   |
                         - distance formulas                     |
            2            - functions                       9.6   -+
                         graphs                                  |
            3            - level curves                          |
                         - quadrics                              |

                      3. Curves                         10/6-10/10

            1            - curves in space                10.1   |
                         - velocity                              |
                         - acceleration                   10.2   |
            2            - arc length                     10.3   -+
                         - curvature                      10.4   |
            3            - cylindrical coordinates         9.7   |
                         - spherical coordinates                 -+

                      4. Surfaces                       10/13-10/17

            1            - Columbus day, no class
            2            - parametric surfaces            10.5   |
            3            - functions                      11.1   |
                         - continuity                     11.2   |

                      5. Functions                      10/20-10/26

            1            - review for first hourly               |
                         first Midterm (week 1-4)
            2            - partial derivatives            11.3   -+
                         solutions to PDE's                      |
            3            - linear approximation           11.4   |
                         tangent planes

                      6. Gradient                       10/27-19/31

            1            - chain rule                     11.5   |
                         implicit differentiation               |
            2            - gradient                       11.6   -+
                         gradient and level curves               |
            3            - directional derivative         11.6   |
                         direction of steepest decent            |

                      7. Extrema                        11/3-11/7

            1            - maxima, minima, saddle points  11.7   |
            2            - Lagrange multipliers           11.8   -+
            3            - Global extremal problems       11.8   |

                      8. Double Integrals               11/10-11/14
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1           - Veterans day (no class)                  |
2           - Double integrals              12.1-3 |
3           - polar coordinates             12.4   |

     9. Surface area                   11/17-11/21

1           - Review for second midterm            |
              second Midterm  (week 4-7)
2           - applications of double integrals 12.5   |
            - surface area                 12.6   |
              Thanksgiving break

     10. Triple and line Integrals     11/24-11/28

1           - triple integrals             12.7   |
2           - cylinder, spherical coordinates  12.8   -+
3           - vector fields                13.1   +
            - line integrals               13.2   |

     11. Integral Theorems I           12/1-12/5

1           - fundamental thm line integrals  13.3   |
2           - Greens theorem               13.4   -+
3           - curl and divergence          13.5   |

     12. Integral Theorems II          12/8-12/12

1           - flux integrals               13.6   |
2           - Stokes theorem               13.7   -+
3           - Gauss theorem                13.8   |
            - Applications                 13.9   |

     13. Free and review                12/15-12/16

1           - Review or free topic.                |
              Mathematica project due.
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