MATH 252 - ANALYTIC GEOMETRY & MULTIVARIABLE CALCULUS

Instructor: Patrick Staley
Office: 390D
Office hours before Oct 2: 9:00-9:50AM on Mon Wed Fri; and 12:30-1:20PM on Tue Thur
Office hours after Oct 2: 9:00-9:50AM on Mon Wed Fri; and 3:30-4:20PM on Tue Thur
Website: www.staley-classes.org
Email: pstaley@swccd.edu
Telephone: 421-6700, ext 5521

Text: Calculus with Analytic Geometry Eigth Edition, by Larson, Hostetler, and Edwards.

Prerequisites: Math 251 with grade of C or better.

Class Hours: section 3: 7:30-8:40AM Mon Wed Fri in room 391
section 5: 12:00-1:10PM Mon We Fri in room 391

Graphing Calculator Required: Recommended calculator is the TI-83+. The TI-84/85/or 86 are also OK for this class. Calculators with symbolic algebra capabilities, e.g. TI-89 or TI-92, are not allowed for exams. Some of the exams are no-calculator exams.

Course Description: Analytic geometry, vectors, vector valued functions, calculus with functions of several variables, vector fields, and vector fields in the plane ($\mathbf{R}^2$) and 3-space ($\mathbf{R}^3$). Specific topics include--

Vectors in $\mathbf{R}^2$ and $\mathbf{R}^3$
Dot and cross product
Equations for lines, planes, and surfaces in $\mathbf{R}^3$
Cylindrical and spherical coordinates
Calculus of vector valued functions
Tangent and normal vectors for curves
Arc length and curvature
Calculus of functions of two and three variables
Tangent planes and normal lines for surfaces
Double, triple, and iterated integrals
Vector fields
Line integrals
Conservative vector fields
Green's theorem
Parametric Surfaces
Surface integrals
Divergence theorem

Attendance Policy: Students are expected to attend all lectures. If a student misses excessive class time, he/she may be dropped. Attendance is taken with a seating chart.

Electronic Devices: During lecture please turn off all phones, pagers, music devices, tape recorders, etc.

Special Accommodations: Southwestern College recommends that students with disabilities discuss academic accommodations with their professors during the first two weeks of class. An alternate form of this syllabus is available upon request.

Homework: There will be homework due nearly every class period. Repeated failure to complete homework assignments will result in the student being dropped for non-performance.

Grading Policy: Your final grade will be a composite of six chapter tests and a Final Exam. The Final Exam is weighted as one and one-half chapter tests. Letter grades of A,B,C,D, or F are assigned to each chapter test and Final Exam. These are incorporated into the final grade based on the weight assignments A=4, B=3, C=2, D=1, and F=0. Excessive F scores (two) will result in a lower class grade regardless of the weighted average score. The final exam is comprehensive. There will be no make up tests.

Example of Grading Algorithm: Assume chapter test grades of B,D,B,B,A, and final exam grade of A. Then class grade = (3+1+3+3+4+4*1.5)/6.5 = 3.08 = B (note that for the class grade A is 3.501 to 4.0, B is 2.501 to 3.5, C is 1.501 to 2.5, D is 0.9 to 1.5, and F is 0 to .89)

Exams: Knowing the correct answer to an exam question is insufficient—the correct answer must be written on the answer sheet. Exam answers that confuse the grader will be marked wrong. For many exams you will be allowed to have a table of integrals and a handwritten 3x5 card with formulas. For the table of integrals you could copy the table of integrals in your textbook (pgs A27-32), or procure your own table of integrals.

Website: www.staley-classes.org contains relevant information for this class including: homework assignments, current notes to students, information on exams, an updated syllabus, the current grade sheet (password protected), a downloadable table of integrals, quiz and exam practice problems, practice tests, answers to practice tests, and other relevant information. You will need Adobe Reader (5.0 or higher; instructions for downloading Adobe Reader are on the website). So that you receive website update notifications please send an email message to stserv@list.mr-ideahamster.com with "subscribe M252F07" in the body. If you are viewing this syllabus in electronic form you may click here to send the appropriate email message for the notification list.

Exclusion Policy: A student may be dropped from the class for excessive absences, non-performance, cheating, or disruptive behavior.

Cheating: Behavior indicative of cheating will be handled by an oral exam, the outcome of which will be one of: F grade on the exam, F grade for the semester, dropping the class, or reinstatement of the score. This penalty also applies to any accomplice.

Projected Schedule:

week 1 –-Preliminaries	week 10 --Chapter 13
week 2 --Chapter 11	week 11 --Chapter 14
week 3 --Chapter 11	week 12 --Chapter 14
week 4 --Chapter 11	week 13 --Chapter 14
week 5 --Chapter 12	week 14 --Chapter 15
week 6 --Chapter 12	week 15 --Chapter 15
week 7 --Chapter 12	week 16 --Chapter 15
week 8 --Chapter 13	week 17 --Chapter 15
week 9 --Chapter 13	week 18 --Final Exam

Final Exam times: section 3 Monday December 17 8:00AM-10:00AM
section 5 Monday December 17 1:00PM-3:00PM

Initial Assignment: Buy the textbook; obtain a calculator; prepare for a preliminaries quiz by doing the preliminaries quiz on the website (Prelim quiz).