Syllabus for: Math50C– Brad Morin

Semester & Year:	Spring 2015
Course ID and Section Number:	Math-50C-E7433
Number of Credits/Units:	4
Day/Time: **Location:**	MTWThF 7:50 am – 8:45 am Arcata High School, Room 108
Instructor's Name:	Brad Morin
Contact Information:	Help Sessions: scheduled on various weekday evenings or Sunday afternoons at AHS. Email: brad.morin@gmail.com

Course Description:
The third in the series of three calculus courses. Multivariable Calculus applies the techniques and theory of differentiation and integration to a thorough study of vectors in two and three dimensions, vector-valued functions, calculus of functions of more than one variable, partial derivatives, multiple integration, Green's Theorem, Stokes' Theorem, Divergence Theorem; includes motion in two and three dimensions, curves and surfaces.

Special Notes or Advisories: Extensive computer visualization is an integral component of this course.

Student Learning Outcomes (as described in course outline) :
1. Formulate equations of lines and planes including a tangent plane to a surface at a point.
2. Evaluate partial derivatives, and two- and three-dimensional integrals. Apply techniques to real-world problems.
3. Perform vector operations. Differentiate and integrate vector-valued functions. Compute arc length. Use the theory of vectors as a fundamental problem-solving tool.
4. Determine for a function of several variables: the limit at a point, differentiability, local extrema and test for saddle points. Solve constraint problems using Lagrange multipliers.
5. Find the divergence and curl of a vector field. Apply Green's, Stokes', and Divergence Theorems.

Special accommodations: College of the Redwoods complies with the Americans with Disabilities Act in making reasonable accommodations for qualified students with disabilities. Please present your written accommodation request at least one week before the first test so that necessary arrangements can be made. No last-minute arrangements or post-test adjustments will be made. If you have a disability or believe you might benefit from disability related services and may need accommodations, please see me or contact Disabled Students Programs and Services. Students may make requests for alternative media by contacting DSPS.

Academic Misconduct: Cheating, plagiarism, collusion, abuse of resource materials, computer misuse, fabrication or falsification, multiple submissions, complicity in academic misconduct, and/ or bearing false witness will not be tolerated. Violations will be dealt with according to the procedures and sanctions proscribed by the College of the Redwoods. Students caught plagiarizing or cheating on exams will receive an "F" in the course.

The student code of conduct is available on the College of the Redwoods website at: http://redwoods.edu/District/Board/New/Chapter5/AP%205500%20Conduct%20Code%20final%2002-07-2012.pdf

Additional information about the rights and responsibilities of students, Board policies, and administrative procedures is located in the college catalog and on the College of the Redwoods homepage.

College of the Redwoods is committed to equal opportunity in employment, admission to the college, and in the conduct of all of its programs and activities.

Textbook: Calculus: Early Transcendentals, 5th Edition by James Stewart (not 7th edition).

       Try Amazon. Save a bundle.

       The text book is effectively my lecture notes.

Course Equipment: TI-83 Calculator or TI-84 (TI-89 won't work well for our class).

       Bring text and calculator on lecture days -- calculator on exam days.

Basis for Grade: _Still under review, may be adjusted._

       25% Daily Homework

       50% Semester Exams.

       20% Final Exam

       5% Activities

Grade Scale: Letter grades will be determined based upon the following scale.

        A 93% - 100% A- 90% - 92%

        B+ 87% - 89% B 83% - 86% B- 80% - 82%

        C+ 77% - 79% C 73% - 76% C- 70% - 72%

        D 60% - 69%

        F Below 60%

Learning Resources: Overview at http://msenux.redwoods.edu/mathdept/courses/math50A.php

        Disabled Student Programs and Services

        Academic Support Center

        The L.I.G.H.T. Center

        GUID 145

Placement: Make certain this course is appropriate for your skills and experience.

Modifications and additions to this syllabus will be necessary.

Prerequisites: Make certain this course is appropriate for your skills and experience.

        Precalculus, or College Algebra and Trigonometryi, is/are prerequisites.

Math 50C   Homework, Exams & Extra Curricular Activities
Morin
Spring Semester 2015

Homework and exam dates are given below. Each day you are to:
  Turn in one problem (sometimes two). Work must be clearly presented. I'll specify which problems.

Missed assignments can be made up by showing me your completed work on the assignment associated with the missed quiz or assignment. In addition, complete one of the following makeup activities (you choose which one you want to do) for each missed quiz or homework. Have it done by one day after the exam following the missed quiz of homework.
  1.   Compete in the Integration Bee at HSU in March
  2.   Compete in the Redwood Empire Mathematics Tournament
  3.   Demonstrate your ability to do a good 3-D graph with Wolfram Alpha.

Turn in problem is in **bold** type and in brackets

Date		Section	Homework/Quiz Problems — <u>Underlined problems can wait till the weekend.</u>
Jan	21	12.1	3,5,7,9a,10,11,13,15,19a,22,27,29,**[33]**,35 — <u>37,41,**42</u>
	22	12.2	3,11,21,25,27,29,**[32]**,33,35 — <u>37,39,*44</u>
	23	12.3	1,2,7,9,11,13,17,19,22,25,27,31,37,41,43,45,49,**[51]**,57

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	26	12.3	46,50,52,54
		12.4	1,5,7,**[8]**,9
	27	12.4	11,12,13,15,18,23,25,**[31]**,33,35 — <u>39,41,45</u>
	28	12.5	1-37 odds, **[39]**
	29	12.5	41-59 odds, 65,67,**[69]**,71
		12.6	1,3,5,7
	30	12.6	11,13,15,17,19, 21-28, **[28]**, 35,37

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Feb	2	12.7	1-35 odd, **[36]**, 37-45 odd — 51-61 odd, 65 (before the exam)
	3	Review	
		Chapter 12	5,7,9,10,11,12,13,15,16,17,18,20,21,22,23,24,35,37,39,40,41,42,43,45,48
	4	**Exam 1**	
	5	13.1	2,5,9,11,13,17,19-24,25,31 — <u>35,37,40,**43</u>
	6	12.1 12 12.2 34 12.3 30,38,40,44 12.4 34,38 12.5 56,60 12.6 18 12.7 60	

  Turn them all in for 1/3 of your missed exam points added back on. (If they are all correct.)
  I'll also add 5 more points to your first exam score.

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	9	13.2	1,5,7,11,15,17,19,23,25,**[27]**,33,37,39 — <u>41,43,47,**49</u>
	10	13.3	1,3,9,**[11]**,13,17,19,21,23,25,27,29,32,33
	11	13.3	28,32,33,37,39,41,43,**[45]**,47
		13.4	7,11,13,15,17
	12	13.4	21,23,25,**[27]**,**29
	13	13.4	31,33,35 nothing to turn in
			Take Home Test

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	23	14.1	3,5,7,11,13,17,19,23,25,29,30,**[31]**,35 — <u>45,47,49,53-58,59,63</u>
	24	14.2	1,3,5,7,11,15,18,23,26,27,28,31 — <u>33,35,37</u>
	25	14.3	1,5,8,13,15,17,27,29,**[34]**,35,41,46,47,51,57,60,61,67,77,82,83

26   AMC
27   14.4   1,5,7,11,13,17,**[19]**,23,27,29,31

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More to come