Course Syllabus

Spring 2015

Math B6B: Calculus II (4 units)

Professor: Rafael Espericueta
Prof's Email: resperic@bakersfieldcollege.edu
CRNs: 31505
Homepage: http://www2.bakersfieldcollege.edu/resperic/

Class Meetings
Mon through Thurs from 11:10 - 12:07 pm in MS 109.

Topics Covered
See the Student Learning Outcomes below. We will cover chapters 7 through 12 in the text. See the class calender link from my homepage for what topic is covered on what day, and when in-class exams are scheduled.

Prerequisites:
MATH B6A or an equivalent course with a grade of “C” or better or qualifying score on placement assessment. Recommended: Reading 6. Transferable.

Text
Calculus for Scientists and Engineers by Briggs, Cochran, and Gillett.
You will be required to use MyMathLab. This online homework package includes an etext. If you do not mind reading the text online, you are not required to purchase a hard copy.

Important: If you already have an access code from taking calculus using the same text last semester, you shouldn't have to purchase ANYTHING for this course! :-)

Prof's Office Hours
Office hours (in MS 109) - Mondays through Thursdays from 12:15 - 1 pm,
2:10 - 2:35 pm,
3:25 pm

Dropping
If you need to drop the class for any reason, it is entirely your responsibility to do so. Check with the Office of Admissions and Records to see what their policy is concerning dropping the class, if you need to exercise this option. If you don't drop the class, you may end up with an 'F' on your transcript. On the other hand, you may be dropped if you accrue 8 unexcused absences, but don't count on it. You may also be dropped for not keeping up with your course assignments.

Grading
Your grade will be computed as follows:
Homework: MyMathLab assignments (online: 1 for each section covered): 15%
Chapter Quizzes: MyMathLab assignments (online: 6 in total, 1 for each chapter covered): 15%
Midterm Exams 30% (in class, 2 of 'em @ 15% each)
Final Exam: 40% (in class)

Final Exam Times
Wednesday, May 13, from 10 - 11:50 am (in MS 109)
MyMathLab
Go to the course link at my website (http://www2.bc.cc.ca.us/resperic) to see how to get started.
Or just Google: rafa page bakersfield, it should return my page as the first result.

Accommodations
Students with disabilities who believe they may need accommodations in this class are encouraged to contact Supportive Services on the first floor of the counseling building, 395-4334, as soon as possible to better ensure such accommodations are implemented in a timely manner.

FERPA
The Family Education Rights and Privacy Act (FERPA) is a federal law that prohibits the instructor from sharing student information (grades, class progress, etc..) with anybody except the student. This means that I cannot share your information with family members (parents, siblings, spouses, etc…).

Math B6B Student Learning Outcomes
Upon completion of this course, the student will be able to
1. Calculate derivatives of exponential and logarithmic functions, inverse trigonometric functions, hyperbolic functions, and inverse hyperbolic functions. Identify when to use logarithmic differentiation. Solve problems involving exponential and logarithmic functions.
2. Integrate exponential and logarithmic functions, and hyperbolic functions. Identify integrands that are derivatives of inverse trigonometric functions or inverse hyperbolic functions. Determine when to use u-substitution or complete the square.
3. Determine an appropriate method of integration and apply that method. Choose partial fractions (may first require long division), integration by parts, trigonometric substitution (use a triangle or an identity) or a combination of methods.
4. Evaluate improper integrals.
5. Know properties of sequences. Recognize monotonic sequences and know when they converge. Test whether a sequence converges or diverges by using a limit or the Sandwich Theorem.
6. Be familiar with geometric series, telescoping series, and p-series. Test whether a series converges (absolutely or conditionally) or diverges. Be able to apply the nth-term test for divergence, the integral test, the direct comparison test, the limit comparison test, the ratio test, and the nth-root test. Determine radius and interval of convergence.
7. Estimate the error in truncating a series.
8. Build the Taylor series, Taylor polynomial of order n, or Maclaurin series of a function. Know the form of the binomial series.
9. Translate rectangular coordinates to polar coordinates and polar to rectangular. Graph, calculate slope, area, or shared area of polar curves.
10. Be able to parameterize an equation. Be able to graph, differentiate, and integrate parametric equations.