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Brazosport College

MATH 2415 – CALCULUS III
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COURSE SYLABUS

Term: Summer 2012 (11 weeks)
Course #   2415.40
Course Schedule: Online 6/4/12 – 8/13/12
Course Location: Online

Instructor: Dr. Calin Agut,
Office: J-202, Department of Mathematics
E-mail: Calin.Agut@brazosport.edu
Phone: 230-3274
Office Hours: Check the website

Final Exam (tentative):   08/13/12, 2 hours, time frame 7:00-17:00
Withdraw last date: 08/01/12

Course Description/Overview

The *Calculus III* course is design as a completion of the Calculus topic. It will contain power series, vector calculus, differential calculus of functions of more than one variable, directional derivatives, gradients and other applications of partial derivatives, multiple integration and applications.

Credits: 4.

Textbook

The course textbook is ***Thomas' Calculus – Media Upgrade***, 11th Edition by G.B. Thomas, The Pearson Addison Wesley Company, 2008.

College Online Webpage D2L (Desire 2 Learn)

Log-in via D2L online.brazosport.edu and find the course. There will be your electronic Syllabus, Course Content and more.

Web CourseCompass Registration/Login:

Go on coursecompass.com, use the course ID **agut62649** and create an account. You'll be able to find the electronic version of the book, the homework and all other assignments.

See the Attached Sheet with information.

Required Material:

PC access for homework, quizzes and other assessments given by the instructor.

Graphing Calculator, TI 83/84 plus or equivalent. It is the student's responsibility to have basic knowledge about using his/her own calculator.

Prerequisites:

MATH 2414.

Format

The course is designed as an online course.

There will be no face-to-face instructional meetings. All the discussions will take place and posted on D2L on the Discussion board.

Assessments:

During the Semester there will be several quizzes, projects, challenge exercises, Test(s) and one Final Exam.

Check the attached Schedule for more details.

No Make-Up is allowed under any circumstances, for any of the scheduled assignments.

Grading Policy/Evaluation:

The grades will be counted in the following way:

Quizzes	25%
Homework	15%
Test(s)	30%
Final Exam:	30%

Quizzes:

There will be several quizzes during the term. All of the quizzes are due online with coursecompass.com. Be sure you consult the schedule and don't miss any quiz. Every quiz has a time limit of 60 minutes and a maximum of 2 attempts. There is a due date/time for quizzes. The number of questions may vary. Please consult the attached schedule. No Make-Up is allowed under any circumstances.

Homework

The assigned HW is listed on the schedule. All of the items are due online with coursecompass.com. There will be a due date (see Schedule). No time limit for the HW (except for the due date). Maximum number of attempts is 5 per question. The number of questions may vary. No Make-Up is allowed under any circumstances.

Test(s)

There will be 2 tests during the term. They are due online with coursecompass.com. Be sure you consult the schedule and don't miss any test. Every quiz has a time limit of 90 minutes and 1 attempt. There is a a time frame stated in the Schedule. The number of questions may vary. Please consult the attached schedule. No Make-Up is allowed under any circumstances.

Final Exam

The Final Exam is mandatory and comprehensive.

The Exam is online, via coursecompass.com. The time limit is 120 minutes within the time frame stated in the Schedule.

No make-up is allowed for the Final.

Grading Scale:

Unless an announced in changes is made, the following scale will be applied for this course:

A: 90-100;
B: 80-89;
C: 70-79.
D: 60-69
F: < 60.

Dropping policy

No dropping will be initiated by the instructor at any time, unless extraordinary circumstances, official documented.

To be eligible for a reinstatement, the student must bring official documents and have an average of at least 70% in his/her class participation.

Students with disabilities:

Please address any request to the School Staff so that we can arrange for proper accommodation. It is my policy and priority to allow equal opportunity for every student.

Miscellaneous

During the HW, Quiz, Test and/or Exam, the student may use the Graphing Calculator 83/84 plus or equivalent. No other device is allowed to be used.

During the Test or Exam, the student cannot use any external notes, formulas, etc.

IMPORTANT:

Any further information will be presented in class by the instructor and is the student's responsibility to be informed. Information may be provided via email or posted on D2L under Discussion Board.

During a time frame for an online assignment, the instructor will not answer to any question that is related to that assignment, except for HW (Example: you have Quiz #4 and you score a low grade for the first attempt; trying to prepare for the next allowed attempt, in the meantime, you ask/post a question. The instructor will not answer to that until the time frame is expired).

Course Outcomes:

   Upon completion of the course, the student will be able to:

1. Find the interval of convergence of a given power series.
2. Derive a Taylor series for a given function.
3. Differentiate and integrate functions represented by given power series'.
4. Convert notation for two dimensional vectors from polar form to rectangular form and from rectangular form to polar form.
5. Find sums and scalar multiples of both two dimensional and three dimensional vectors.
6. Find scalar products of both two dimensional and three dimensional vectors.
7. Find the cross product of given three dimensional vectors.
8. Give a vector function and parametric equations for a line through a given point with a given direction.
9. Write equation for a plane through a given point with given normal vector.
10. Give an equation for a plane through three given non-collinear points.
11. Find the distance from a point to a plane.
12. Differentiate a given vector valued function.
13. Find the unit tangent vector at a given point on a curve defined by a vector valued function.
14. Find the unit normal vector at a given point on a curve defined by a vector valued function.
15. Find the curvature of a curve at a given point.
16. Find the partial derivative with respect to a given variable of a multivariable function.
17. Apply the chain rule to multivariable functions.
18. Find absolute extrema of a multivariable function over a given region.
19. Evaluate iterated integrals.
20. Write an iterated integral that can be used to evaluate a given double integral.
21. Use multiple integrals to find the volume of a given solid.

Academic Honesty:

   Brazosport College assumes that students eligible to perform on the college level are familiar with the ordinary rules governing proper conduct including academic honesty. The principle of academic honesty is that all work presented by you is yours alone. Academic dishonesty including, but not limited to, cheating, plagiarism, and collusion shall be treated appropriately. Please refer to the BC Student Guide for more information, this is available online at http://www.brazosport.edu , click on the link found on the left side of the homepage.

Students with disabilities:

   Brazosport College is committed to providing equal education opportunities to every student. Brazosport College offers services for individuals with special needs and capabilities including counseling, tutoring, equipment, and software to assist students with special needs. Please contact Phil Robertson, Special Populations Counselor, 979-230-3236 for further information.

Other student Services Information:

   Your course on WebCT: http://webster.brazosport.edu
   Information about study skills and tutoring for math, reading, writing, biology, chemistry and other subjects is available in the Learning Assistance Center (LAC), see www.brazosport.edu/~lac or call 979-230-3253.
   The Student Services provides assistance in the following:
   Counseling and Advising   979-230-3040
   Financial Aid   979-230-3294
   Student Activities   979-230-3355
   To reach the Information Technology Department for computer, email, or other technical assistance call the Help Desk at 979-230-3266.

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Web CourseCompass Registration/Login:

Open: Go on www.coursecompass.com

Register: Click on "Register" as Student;
                            Be sure you have: - valid email address;
                                                     - course ID is **agut62649**
                                                     - a Student Access Code

IMPORTANT: if you have any difficulties, go on www.coursecompass.com and
                            click on "How to register" or "Need Help"

Login in: after having registered yourself, anytime you need to access your
                            account, just go on www.coursecompass.com and click on "LOG
                            IN".

Course: *Calculus III, Summer 2012*
                            (*Be sure you are log in for this course*)

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Online Format

Part 1

	Homework #	Time (CST)
Lesson 1: Power Series	HW 1	6/4/12 - 7/12/12
Lesson 2: Taylor and McLauren Series	HW 2	6/4/12 - 7/12/12
Lesson 3: Convergence of Taylor Series	HW 3	6/4/12 - 7/12/12
Lesson 4: Applications to Power Seris	HW 4	6/4/12 - 7/12/12
Lesson 5: 3D Coordinate System	HW 5	6/4/12 - 7/12/12
Lesson 6: Vectors	HW 6	6/4/12 - 7/12/12
Quiz #1 (lessons 1-6)		6/4/12 - 7/12/12
Lesson 7: The Dot Product	HW 7	6/4/12 - 7/12/12
Lesson 8: The Cross Product	HW 8	6/4/12 - 7/12/12
Lesson 9: Lines and Planes in 3D	HW 9	6/4/12 - 7/12/12
Quiz #2 (lessons 7-9)		6/4/12 - 7/12/12
Lesson 10: Curves in Space	HW 10	6/4/12 - 7/12/12
Lesson 11: Integrals of Vector Functions	HW 11	6/4/12 - 7/12/12
Lesson 12: The Arc Length	HW 12	6/4/12 - 7/12/12
Quiz #3 (lessons 10-12)		6/4/12 - 7/12/12
Lesson 13: Curvature and Normal Vectors	HW 13	6/4/12 - 7/12/12
Lesson 14: Torsion	HW 14	6/4/12 - 7/12/12
Quiz #4 (lessons 13, 14)		6/4/12 - 7/12/12
Review for Test 1		6/4/12 - 7/12/12
Test 1	90 minutes, 1 attempt	7/9/12 at 7:00 to 7/12/12 at 17:00

Part 2

	Homework #	Time (CST)
Lesson 15: Functions of Multivariables	HW 15	6/4/12 - 8/12/12
Lesson 16: Limits	HW 16	6/4/12 - 8/12/12
Lesson 17: Partial Derivatives	HW 17	6/4/12 - 8/12/12
Lesson 18: Directional Derivatives and Gradient	HW 18	6/4/12 - 8/12/12
Lesson 19: Tangent Planes	HW 19	6/4/12 - 8/12/12
Lesson 20: Extreme Values	HW 20	6/4/12 - 8/12/12
Quiz #5 (lessons 15-20)		6/4/12 - 8/12/12
Lesson 21: Double Integrals	HW 21	6/4/12 - 8/12/12
Lesson 22: Area	HW 22	6/4/12 - 8/12/12
Lesson 23: Triple Integrals	HW 23	6/4/12 - 8/12/12
Lesson 24: Moments and Center of Mass	HW 24	6/4/12 - 8/12/12
Quiz #6 (lessons 21-24)		6/4/12 - 8/12/12
Review for Test 2		6/4/12 - 8/12/12
Test 2	90 minutes, 1 attempt	8/6/12 at 7:00 to 8/9/12 at 17:00
Exam	120 minutes, 1 attempt	8/13/12, 7:00 - 17:00

Remarks:
D2L contains all the course information.
www.coursecompass. com contains all the assignments.