MATH 2414  
Student Course Document – Revised Spring 2012

1. **Course Title:** Calculus II

2. **Prerequisite:**  
   Calculus I (Math 2413)  
   Engl 0305 or 0316 (developmental reading) or placement by testing  
   **Corequisite:**  
   Engl 0307 or 0326 (developmental writing) or placement by testing

3. **Credit:** Four (4) semester hours

4. **Materials Needed:**

   
   4.2 **Website:**  
   [www.pearsonhighered.com/thomas](http://www.pearsonhighered.com/thomas)
   
   4.3 **Optional:**  
   Student’s Solutions Manual, Single Variable Calculus, William Ardis
   
   4.4 **Calculator:** Students may find it helpful to own a graphing calculator such as a TI-82 or TI-85. Each instructor will announce his/her specific policies concerning classroom usage of calculators during the first week of the semester. **As a minimum, all students should have a scientific calculator.**

5. **Purpose:**

Math 2414 is a continuation of the study of calculus begun in Math 2413. Calculus II emphasizes the calculus of transcendental functions, techniques of integration, applications of integration, L’Hopital’s Rule and indeterminate forms, polar coordinates, parametric equations, infinite sequences and series and power series.

6. **Major Course Objectives:**

   6.1 Acquire skill in differentiation and integration of logarithmic, exponential, hyperbolic and inverse trigonometric functions
   
   6.2 Acquire skill in the basic techniques of integration
   
   6.3 Acquire skill in using integration to solve applied problems
   
   6.4 Acquire skill in working with parametric equations and polar coordinates
   
   6.5 Acquire skill in evaluating indeterminate form in L’ Hospital’s Rule
   
   6.6 Acquire skill in using tests to determine convergence or divergence of sequences
   
   6.7 Acquire skill in using tests to determine convergence or divergence of infinite series
   
   6.8 Acquire skill in generating and using power series

7. **General Course Outline:**

Textbook Chapters: 6, 7, 8, 9, 10, 11.  
Sections: 6.3, 6.4, 7.1 – 7.8, 8.1 – 8.7, 9.1, 9.2, 10.1-10.10, 11.1 – 11.5
8. **Honors by Contract:**

Students with demonstrated high ability and interest in math and science may receive honors credit in Math 2414 by signing and fulfilling all conditions of an Honors Contract. Students who elect this option will complete all work assigned to other students in class. In addition, the honors student will have the opportunity to solve an interesting honors problem proposed by their advisor. With the advisor’s guidance, honors students work in a research-type situation to solve the problem and apply this solution to an open-ended extension. Honors students are exposed to the beauty and artistry which is present in mathematics. Interested students should contact their instructor or the math department during the first week of the semester.

9. **MyLoneStar:**

MyLoneStar gives students, faculty, and staff access to important academic information. It allows a student to register, search for courses, obtain financial aid information, pay tuition and fees, and view course grades. From [www.lonestar.edu](http://www.lonestar.edu), click on MyLoneStar at the top right corner. Follow the instructions for securing your user name and password under the Self-Service Tools. Please contact the helpdesk at 1-866-614-5014 or send an email to [ots@lonestar.edu](mailto:ots@lonestar.edu) for further assistance.

10. **Withdrawal Policy/Student Drop Limit:**

Students who enrolled in Texas public institutions of higher education as first-time college students during the Fall 2007 term or later are subject to section 51.907 of the Texas Education Code, which states that an institution of higher education may not permit a student to drop (withdraw with a grade of “W”) from more than six courses. This six-course limit includes courses that a transfer student has previously dropped at other Texas public institutions of higher education if they fall under the law.

Students should be sure they fully understand this drop limit before they drop a course. Please visit the admissions office or counseling/advising center for additional information and assistance.

11. **Academic Integrity:**

The Lone Star College System upholds the core values of learning: honesty, respect, fairness, and accountability. The system promotes the importance of personal and academic honesty. The system embraces the belief that all learners-students, faculty, staff and administrators—will act with integrity and honesty and must produce their own work and give appropriate credit to the work of others. Fabrication of sources, cheating, or unauthorized collaboration is not permitted on any work submitted within the system.

The consequences for academic dishonesty are determined by the professor and academic dean, or the professor and chief student services officer and can include but are not limited to:

1. Having additional class requirements imposed,
2. Receiving a grade of zero or “F” for an exam or assignment,
3. Receiving a grade of “F” for the course,
4. Being withdrawn from the course or program,
5. Being expelled from the college system.
12. **Division Counselor:**

Rhonda Cannon, Counselor for Math and Natural Sciences, is available in Winship 115G to assist you in meeting your academic, career, and personal goals. Confidential counseling services are available by appointment to help you overcome academic challenges, make a career choice, plan your transfer, and to gain self-understanding. To schedule an appointment call 281-618-5480 or email rhonda.cannon@lonestar.edu or stop by Winship 115G.

* It is the responsibility of the student to drop a class by “W” day if he/she desires.

* Students with disabilities, who wish to request accommodations in this class, must notify the Disability Services Office as soon as possible so that the appropriate arrangements may be made. Students requesting accommodations must provide documentation of his/her disability to a Disability Services counselor. For more information, call or visit the Disability Services Office at SB 110, (281) 618-5418.