Calculus II  
MATH. 2414.63430  
March Flex 2017  
3/20/17 – 5/11/17

Professor: R. Heiskell  
Email: bheiskell@dcccd.edu  
Office Phone Number: 214-860-8777  
Office Number: W263  
Office Hours: MW 9-10:30; TR 9:30-10:30  
Meeting Days & Time: M-R 10:40-12:20  
Room Number: W231  
Credit Hours: 4 Semester Hours

Division: Science, Technology, Engineering, & Mathematics (STEM)  
Office Hours: M – F 8:00 am – 5:00 pm  
Office Phone: 214-860-8760  
Office Number: W147

Course Description: This course is a study of differentiation and integration of transcendental functions; parametric equations and polar coordinates; techniques of integration; sequences and series; improper integrals.

Course Pre-requisites: MATH 2413 or equivalent.

Course Materials/Supplies Needed  
Graphing Calculator

THECB Learning Outcomes  
Upon successful completion of this course, students will:  
1. Use the concepts of definite integrals to solve problems involving area, volume, work, and other physical applications.  
2. Use substitution, integration by parts, trigonometric substitution, partial fractions, and tables of anti-derivatives to evaluate definite and indefinite integrals.  
3. Define an improper integral.  
4. Apply the concepts of limits, convergence, and divergence to evaluate some classes of improper integrals.  
5. Determine convergence or divergence of sequences and series.  
6. Use Taylor and MacLaurin series to represent functions.  
7. Use Taylor or MacLaurin series to integrate functions not integrable by conventional methods.  
8. Use the concept of polar coordinates to find areas, lengths of curves, and representations of conic sections.
Core Statement:
MATH 2414 is a Tier 1 course in the Quantitative Reasoning learning category. “Knowledge and skills that are important to your success in other college courses will be introduced and reinforced in Tier 1. The Quantitative Reasoning category promotes the application of mathematics to increase your ability to solve ‘real-world’ problem. When you are quantitatively literate, you can use logic and critical thinking in new ways.” - Catalog of the Colleges of DCCCD

Core Objectives:
MATH 2414 develops the following Core Objectives:
Critical Thinking - to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information.
Communication - to include effective development, interpretation and expression of ideas through written and visual communication.
Empirical and Quantitative Skills - to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions.

Core Objective Development Statements:
MATH 2414 develops Critical Thinking, Communication, and Empirical and Quantitative Skills by requiring students to determine solutions to applied problems and provide mathematical models of real-world situations using calculus concepts and techniques.

Course Outline:
<table>
<thead>
<tr>
<th>Chapter</th>
<th>Applications of Definite Integrals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapter 7</td>
<td>Integrals and Transcendental Functions</td>
</tr>
<tr>
<td>Chapter 8</td>
<td>Techniques of Integration</td>
</tr>
<tr>
<td>Chapter 10</td>
<td>Infinite Sequences and Series</td>
</tr>
<tr>
<td>Chapter 11</td>
<td>Parametric Equations and Polar Coordinates</td>
</tr>
</tbody>
</table>

Evaluation Procedures:
<table>
<thead>
<tr>
<th>3 Tests @ 100 points each</th>
<th>300 points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participation/Classwork</td>
<td>50 points</td>
</tr>
<tr>
<td>Comprehensive Final Exam</td>
<td>150 points</td>
</tr>
<tr>
<td>Total Points</td>
<td>500 points</td>
</tr>
</tbody>
</table>

Instructor Attendance Policy:
Students are expected to attend all classes. Students have the responsibility to attend class and to consult with the instructor when an absence occurs. If for some reason you must leave class early, you should inform the instructor prior to the start of class of your reason for leaving early.

Students must begin attendance in all classes of enrollment. No exceptions. Financial Aid will not be granted to students who have been certified as not attending, by the certification date. For this lecture course, your physical participation in class, on or before the certification date will allow you to receive credit for FA purposes. For certification dates, check with the division or FAO for further information. Students, who are not certified as beginning class, are responsible for any payments due as a result of non-certification, to include the dropping of courses.

Grading Scale:
<table>
<thead>
<tr>
<th>450-500 points</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>400-449 points</td>
<td>B</td>
</tr>
<tr>
<td>350-399 points</td>
<td>C</td>
</tr>
<tr>
<td>300-349 points</td>
<td>D</td>
</tr>
<tr>
<td>Below 300 points</td>
<td>F</td>
</tr>
</tbody>
</table>
Late Work Policy: No late work accepted

Makeup Exam Policy: No make up exams allowed. The final exam can replace one low test grade.

The withdraw date for this class is **April 29, 2017**.

**Academic Dishonesty:**
Students that caught plagiarizing an assignment will be subject to an “F” in the course and possible expulsion from the college.

_Academic honesty is expected, and integrity is valued in the Dallas County Community Colleges. Scholastic dishonesty is a violation of the Code of Student Conduct. Scholastic dishonesty includes, but is not limited to, cheating on a test, plagiarism, and collusion. As a college student, you are considered a responsible adult. Your enrollment indicates acceptance of the DCCC Code of Student Conduct published in the DCCC Catalog. More information is available at [https://www1.dcccd.edu/catalog/ss/code.cfm](https://www1.dcccd.edu/catalog/ss/code.cfm)._

**Institution Policies:** Please visit [http://www.mountainviewcollege.edu/Academics/Documents/Institutional%20Policies.pdf](http://www.mountainviewcollege.edu/Academics/Documents/Institutional%20Policies.pdf) for a complete list of institutional policies (Stop Before You Drop; Withdrawal Policy; Repeating a Course; Financial Aid; Academic Dishonesty; Americans with Disabilities Act Statement; Religious Holidays; and Campus Emergency Operation Plan and Contingency Plan.).

**9.1 Institutional Policies**
Students with Disabilities: If you are a student with a disability and/or special needs, or if you think you may have a disability, please contact the college Disability Services Office (DSO). Please note that all communication with DSO is confidential. If you are eligible for accommodations, please request that the DSO send your accommodation letter to me as soon as possible (students are encouraged to contact DSO at the beginning of the semester). For more information regarding the College Disability Services Office, please visit the Student Services website: dcccd.edu/DS Offices or contact DCCCD Office of Institutional Equity at (214) 378-1633. For information at Mountain View call 214-860-8677

_A Note on Harassment, Discrimination and Sexual Misconduct: We are committed to assure all community members learn and work in a welcoming and inclusive environment. Title VII, Title IX and DCCCD policy prohibit harassment, discrimination and sexual misconduct. If you encounter harassment, sexual misconduct (sexual harassment, sexual assault, stalking, relationship violence, stalking), retaliation or discrimination based on race, color, religion, age, national origin, disability, sex, sexual orientation, gender identity, and/or gender expression, please contact your College Title IX Coordinator or the Office of Institutional Equity. We treat this information with the greatest degree of confidentiality possible while also ensuring student welfare and college safety.

• **College Title IX Coordinators:** Mountain View College: Regina Garner [TitleIX-MVC@dcccd.edu](mailto:TitleIX-MVC@dcccd.edu) 214-860-8561
• **Dallas Colleges Online:** Le’Kendra Higgs [TitleIX-LEC@dcccd.edu](mailto:TitleIX-LEC@dcccd.edu) 972-669-6672
• **District Title IX Coordinator Office of Institutional Equity:** LaShawn Grant [TitleIX-District@dcccd.edu](mailto:TitleIX-District@dcccd.edu) 214-378-1633_

Please visit [http://www.mountainviewcollege.edu/Academics/Documents/Institutional%20Policies.pdf](http://www.mountainviewcollege.edu/Academics/Documents/Institutional%20Policies.pdf) for a complete list of institutional policies (Stop Before You Drop; Withdrawal
Policy; Repeating a Course; Financial Aid; Academic Dishonesty; Americans with Disabilities Act Statement; Religious Holidays; and Campus Emergency Operation Plan and Contingency Plan.)