MATH& 254 – Fall 2014
Course Syllabus

Instructor: Megan Schoessler
Office: 16C
Time: 11:30 a.m. – 12:20 p.m. daily
Office Hours: 1:30 p.m. – 2:30 p.m. daily
Room: 207
Office Phone: 509-527-4617
Website: web.wwcc.edu/meganschoessler
Email: megan.schoessler@wwcc.edu

Course Description
MATH& 254 is an introduction to multivariable calculus. Topics for the course include: vector-valued functions, partial derivatives, directional derivatives, multiple integration, vector analysis, line and surface integrals, and Green’s and Stokes’ theorems.

Prerequisites and Class Policy
MATH& 254 has a prerequisite grade of C- or higher in MATH& 153 or permission by the Mathematics Department. (Formerly MATH 224, Calculus with Analytic Geometry IV.)

Office Hours
Monday through Friday, 1:30 p.m. to 2:30 p.m.. In addition to my scheduled office hour, you may stop by at any time or make an appointment with me. You may also contact me by email or phone. You are responsible for all course material; if you do not understand a concept or problem please don’t hesitate to ask a classmate, a tutor, or me.

Textbook
*Calculus for Scientists and Engineers: Early Transcendentals*, by Briggs, Cochran, Gillett, and Schulz. It is your responsibility to read, work through, and study each section of the book that we cover. A MyMathLab access code is required for the course. A previously purchased access code for this book should still be valid.

Mathematica
In addition to MyMathLab we will use the mathematical software *Mathematica*. Assignments and exams may require the use of *Mathematica*. This software is installed on the computers in our classroom and in the Tutoring and Learning Center. WWCC has a site license that will allow students with a valid WWCC email address the use of *Mathematica* at home. Find a link in MyMathLab for more information on downloading *Mathematica* on your personal computer. Non-calculus computer activity as well as cell phone use are prohibited during class.

Attendance
Daily, punctual attendance at every class session is expected. If you should miss a class, you are responsible for all announcements made concerning the course, for the material discussed in class, and for the homework assignment(s) due the following day. Your cell phone is not a necessity for class and therefore will not be used during class. If this is an issue, you may be asked to leave.
**Homework**
Assignments are to be completed in MyMathLab. Due dates are listed in MyMathLab. There will be two assignments per section covered. The first assignment is for “Practice” and will include several problems from the section so that you may practice your skills. The second assignment is a “Skills Check” assignment. The “Skills Check” assignment will include only a few problems and will check to see that you have mastered the material. For the “Skills Check” assignments you will not be allowed access to the “View an Example” and “Help Me Solve This” tools. Please attempt assignments by the following class period so that you may ask questions before they are due. You have the opportunity to earn 50% on any problems that were not completed prior to the due date, but this opportunity expires one week after the original due date.

**Quizzes**
Quizzes will be given frequently throughout the quarter. If you are absent on a day that a quiz is given, you will receive a zero score and will not be allowed to make up the quiz.

**Exams**
There will be three mid-term exams. You are required to provide a scientific calculator for each exam. Cell phones, headphones, computers, and sharing calculators are prohibited during exams. It is rare to be allowed to take an exam late and such permission is at my discretion. Every late exam will receive a minimum 20% reduction in score.

**Final Exam**
The Final Exam covers all course material for the quarter. The Final Exam will be given Wednesday, December 10th in room 207 from 11:30 a.m. to 1:30 p.m.

**Notebooks**
You must keep a notebook for our class. The content in your notebook must be neat and organized by section. Your notebook must include:
- worked out solutions to Practice problems
- worked out solutions to Skills Check problems
- all quizzes
- all exams and exam solutions
- all handouts

**Grading Procedure**
Your grade will have the following four categories:

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homework/Notebook</td>
<td>15%</td>
</tr>
<tr>
<td>Quizzes</td>
<td>15%</td>
</tr>
<tr>
<td>Midterm Exams</td>
<td>45%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>25%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

**Grading Procedure**
Assignment of letter grades for the course will be based on the following percentages:

<table>
<thead>
<tr>
<th>Percentage Range</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>93% -- 100%</td>
<td>A</td>
</tr>
<tr>
<td>90% -- 93%</td>
<td>A-</td>
</tr>
<tr>
<td>87% -- 90%</td>
<td>B+</td>
</tr>
<tr>
<td>83% -- 87%</td>
<td>B</td>
</tr>
<tr>
<td>80% -- 83%</td>
<td>B-</td>
</tr>
<tr>
<td>77% -- 80%</td>
<td>C+</td>
</tr>
<tr>
<td>70% -- 77%</td>
<td>C</td>
</tr>
<tr>
<td>67% -- 70%</td>
<td>D+</td>
</tr>
<tr>
<td>60% -- 67%</td>
<td>D</td>
</tr>
<tr>
<td>0% -- 60%</td>
<td>F</td>
</tr>
</tbody>
</table>
Academic Integrity
Academic dishonesty (cheating) is not tolerated and will result in a 0 grade.

Accommodations
A student with a documented disability may request accommodations by contacting Claudia Angus, Coordinator of Disability Support Services, by phone at 527-4262 or by email at claudia.angus@wwcc.edu.

Notes
Plan to spend at least two hours outside of class each day reading the textbook, watching videos, studying, and doing math. Here are some essential resources.

- The TEXTBOOK needs to be your first resource.
- WWCC TLC (Open M-Th from 7:30 a.m. to 6:30 pm and Fri. from 7:30 a.m. to 4:30 p.m.)
- Class notes and recordings posted in MyMathLab.
- Contact me via email/phone or asking questions during the office hour.

Ultimately, YOU are in charge of your own success.

To Register in MyMathLab
1) Go to this website: www.pearsonmylab.com
2) Under “Register” click on “Student”.
3) Enter the Course ID: **schoessler84567**, and then click “Continue”.
4) If you **have** already used MyMathLab previously for any other course, enter in your username and password now. If you **have not** used MyMathLab previously, click “Create” to create a username and password.
5) Now you will be asked to either purchase an access code online or enter in the access code that you have already purchased.
6) You are now registered in MyMathLab and can begin reading through the textbook, completing homework assignments, etc.
Intended Learning Outcomes

• Work with two and three-dimensional vectors algebraically and geometrically: magnitudes, directions, dot products, vector products.
• Graph, analyze, and perform calculus operations on two and three-dimensional parametric functions of a single variable.
• Graph, analyze, and perform calculus operations on two and three-dimensional vector-valued functions of a single variable.
• Understand the connections between vectors representing position, velocity, and acceleration.
• Analyze completely, and be able to read, generate, and interpret graphs for functions of two or more variables: surface plots, contour plots, evaluate partial derivatives, find extremums, evaluate directional derivatives, and gradients.
• Setup and evaluate multiple integrals over generalized domains of integration described in rectangular, polar coordinates, cylindrical, and spherical coordinates.
• Setup, evaluate and interpret line integrals and surface integrals.
• Green's Theorem, the Divergence Theorem, and Stoke's Theorem.