HYBRID MULTIVARIABLE CALCULUS

2016 – 2017

LINEAR ALGEBRA

Tuesdays & Thursdays
Period 1
Room 206

Mr. Michael Huberty

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http://moodle.moundsviewschools.org/course/view.php?id=39

OVERVIEW

Semester 1: Multivariable Calculus – partial derivatives and optimization, multiple integrals, vector fields, line integrals, surface integrals, and applications in three-dimensions

Semester 2. Linear Algebra – matrices, systems of equations, vector spaces, subspaces, eigenvalues, eigenvectors, determinants, and applications of linear algebra

MEETING TIMES & GETTING HELP

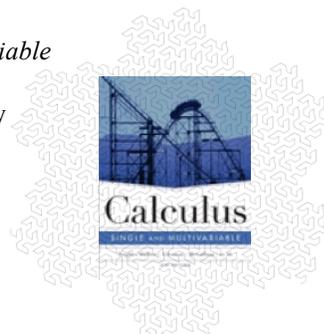Weekly meeting times: Tuesdays & Thursdays – Period 1

There will be additional times for exams that can be scheduled on an individual basis.

As a hybrid course, much of your learning will not be in the regular classroom. Rather, Moodle (web address above) will be used extensively to communicate the mathematics. Resources on Moodle will be provided for instruction. Forums on Moodle will be set up for students to communicate with each other and the teachers on concepts and homework. Due this structure, it is your responsibility to seek the assistance you need. Please seek me out other days for additional face-to-face help. In addition, Mr. Butler and Mrs. Higginbotham can also help you.

TEXTBOOKS

- For Multivariable Calculus we will finish using the textbook *Calculus: Single and Multivariable* (4th edition) by Hughes-Hallett, Gleason, et al., published by John Wiley & Sons, 2005.
- For Linear Algebra we will use the newest version of the online textbook *Linear Algebra* by Jim Hefferon.

MATERIALS

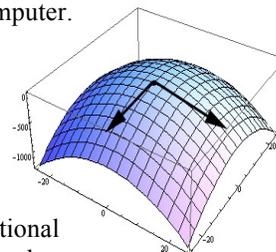You must have the following supplies specifically for this course:

- **online access for Moodle**
- **textbook** - All MVHS textbooks MUST be covered.
- **graphing calculator** - We recommend TI-nSpire CAS or TI-89. Other calculators will work, although you may need to use WolframAlpha for some symbolic computations.
- **graph paper notebooks** – All homework must be done on graph paper or printed from a computer.
- **pencils & erasers**

TECHNOLOGY

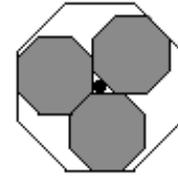Use of technology in the classroom is governed by District Regulation EG-2104 found at http://www.moundsviewschools.org/pdf07/RegEG-2111.pdf . Students may use technology (including personal computers, iPads, calculators, etc.) in class for educational purposes. Specific technology must be put away when the teacher feels it is not necessary for educational purposes.

GRADING POLICY

Grading for this course will be based on the school-wide adopted grading distribution.

PERFORMANCE

The assessment category includes unit tests, gateway exams, quizzes, and final exams. Unit tests will take approximately one hour to complete. Individual quizzes will be shorter. Some exams may be done on Moodle, while others may need to be individually scheduled. Gateways are exams that you must master a particular level of proficiency to earn credit for it - all or nothing. You will be allowed to retake gateway exams until you pass (different versions). There will be two gateway exams in the course. An occasional class quiz will be given where the entire class works on a problem together. Follow up questions to individuals may be given for part of the score given to the entire class.

Special problems generally take a bit more time to complete than ordinary homework problems. They should be done separate from your regular homework, and some will be uploaded on Moodle. Each semester you will watch a math lecture from the Institute for Mathematics and its Applications public lecture series and write a reflection paper on what you learned.

PRACTICE

Homework will be posted on Moodle. Most homework is to be done is your homework notebooks. Some assignments may need to be uploaded on Moodle.

You are expected to participate in mathematical discussions on Moodle. You are expected to check the course Moodle site daily for updates. You must use your @moundsviewschools.org email for Moodle. Remember, you are here because you want to be here (as am I). Try to make this an enjoyable experience for yourself and others.

RELEARNING

When a score on a test does not represent accurately what you know, understand, and can do, a relearning plan will be developed. The relearning plan must be completed within one week of receiving the plan. At the end of each quarter, a student who has completed all required relearing plans may request to take a "quarter option exam". The quarter option exam will be a cumulative exam covering learning targets of the quarter. The score on this exam will replace the lowest test score in the quarter. (The quarter option exam cannot replace a gateway exam.)

ACADEMIC HONESTY

All work of any kind is done under the honor system. The honor system is considered violated when information which results in, or could result in, an unfair advantage for one or more students is given, received, or taken.
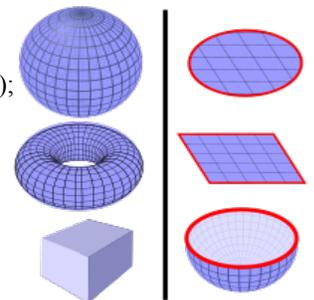
Work turned in under your name is expected to be your work and show your understanding. Work that is copied from other people or resources is considered plagiarism and may not receive credit.

You may work on homework together, but what you turn in must still reflect your knowledge, and any source of assistance must be noted on your paper.

During an examination (quiz, test, gateway) you:
- are required to leave all books and other aids in an inaccessible spot (exception: open-book tests);
- may not leave the room and return to the test without express permission;
- are not allowed to talk to other students or give other students assistance;
- must ensure that your line of sight does not cause someone to suspect you of cheating.

Failure to abide by the code of test etiquette can result in disciplinary action.

CLOSING NOTES

I have high expectations of every student! I also offer as much help as possible. I want this to be a course of great mathematics learning and also one with a comfortable atmosphere. We can work hard to learn a great deal, and try not to be too stressed out about it. Talk with me if you are overwhelmed. Let's have fun with math!!!

RESPECT, RESPONSIBILITY & RESOURCEFULNESS EXPECTED