Course: Math 121 Calculus III OL1 (61557)

Course Time Frame: Summer 2019 (i.e. May 20, 2019 to Aug. 9, 2019)

Instructor: Joe Kudrle (It’s an old Czech name pronounced Cudderly.)

Office: 302 Lord House (16 Colchester Avenue is the address...It’s the Cream/Green building across the street from the Center Theatre/Ira Allen Chapel.)

E-mail: jkudrle@uvm.edu

Phone: 802-656-4294 (Office) and 802-399-8092 (Cell)

Book: Calculus: Early Transcendentals, 8th Edition, Stewart. Please note that you will want the Enhanced WebAssign Supplement that comes packaged with the textbook. You may wish to only purchase the Enhanced WebAssign Supplement which includes an e-book or electronic version of the textbook. The UVM Bookstore offers both options!

Technology Note: A majority of the work done for this course will be done via the UVM BlackBoard Computer System as well as the Cengage WebAssign System.

I will have step-by-step instructions posted along the way to ensure that students do not feel overwhelmed by the technology.

UVM BlackBoard System: bb.uvm.edu

WebAssign: https://www.webassign.net/wa-auth/login

- The Class Key for our section is uvm 2027 9524.
**Course Description:** Calculus III (Multivariable Calculus) is the third course in our three-course calculus sequence. Successful completion of Calculus II (Math 022 or Math 023) is a prerequisite for Calculus III. The course topics include vector functions, with a discussion of derivatives, velocity, acceleration, arc length and curvature; functions of several variables, where we extend the basic idea of differential calculus to these functions; the concept of the definite integral is extended to double and triple integrals, with applications such as volume, mass and centroids, while introduction two new coordinate systems in three-dimensional space (cylindrical coordinates and spherical coordinates); a study of vector fields, line integrals and surface integrals, leading to a discussion of Stokes' Theorem and the Divergence Theorem. Topics will be presented with a level of depth and rigor appropriate for students pursuing degrees in technical fields such as mathematics, statistics, engineering, or the physical sciences.

**Method of Instruction:** Due to the class being fully on-line, much of the instruction duties fall on the student. However, I will go out of my way to ensure that you are keeping up with the materials. I will do the following:

- Post Detailed Section Notes, including worked out problems.
- Post Video Podcasts of Section Notes being discussed.
- Send Weekly Messages, reminding students of pending due-dates and dead-lines.
- Be Available to meet with students for questions, either in-person at my office on UVM’s Campus or in a video-chat via the Free Utility Google+ Hangouts.
- Respond to any emails or questions within 24 hours.
- In general, help you become a better mathematics student.

**Note:** On-Line classes are quite different than face-to-face classes; however, many students find the method of instruction much more liberating, as it allows them to move at their own pace. I will have all materials available at the start of class to facilitate those students who prefer to work at a quicker pace. Please do not hesitate to contact me with any questions.

At a minimum, you can choose to work at the pace stated in the schedule shown below, but if you would like to proceed at a quicker, please feel free to do so. However, please note that answer keys to tests will not be posted until the tests have closed.

Lastly, if you feel that you are becoming overwhelmed by the material, please do not hesitate to send me an email, and I can work with you. Again, a majority of the effort in the class is put on the student, so please don’t feel uncomfortable asking for help.
Grading: The grading system is as follows:

- **Textbook Section Assignments (15%)**: WebAssign homework will be assigned after each section, and should generally be completed as soon as possible. Each assignment will be weighted the same. At the end of the semester, I will drop the lowest four (4) WebAssign grades and average the remaining grades. This average will count towards 15% of your final grade.

  The WebAssign aids (i.e. Show Me) will be turned on during the Section Assignments. **You will be given several (up to 6 attempts) on each problem.**

  Note: Due dates for assignments will be shown in Bb and on the WebAssign system.

- **Quizzes (15%)**: Each week we will have a short quiz on WebAssign. Each quiz will be weighted the same. After the last quiz has been taken, I will drop the lowest two (2) quiz grades and average the remaining grades. This average will count towards 15% of your final grade.

  The WebAssign aids (i.e. Show Me) will **NOT** be turned on during the Quizzes. Furthermore, I encourage you to try to take the quizzes without referencing the textbooks or using any sort of computing devices as these will not be permitted on the Exams. **However, I will give you two attempts on every quiz in order to allow you to go back and fix any mistakes.**

  Note: Due dates for quizzes will be shown in Bb and on the WebAssign system.

- **Tests (70%)**—There will be two tests which and each will count towards 35% of the final grade. Partial credit is available on the tests. **Once a test closes, an answer key will become available on BlackBoard.**
  
  - TEST 1 must be taken within the following time-frame: [June 20, 2019 – June 22, 2019]
  - TEST 2 must be taken within the following time-frame: [Aug. 7, 2019 – Aug. 9, 2019]

  **Tests will be taken without the aid of notes or computing devices (i.e. calculators, computers, smartphones, etc.).**

  You will have two options for how to take the exams.

  **Option 1: On-Campus**: If you wish to take the exams at the UVM campus, they will be held in
  
  - Test 1: [Kalkin 001] on [Thursday, June 20, 2019 from 10:00 AM to 1:00 PM].
  - Test 2: [Kalkin 004] on [Thursday, Aug. 8, 2019 from 10:00 AM to 1:00 PM].

  **Option 2: ProctorU**: ProctorU is an online proctoring service that allows students to take exams online while ensuring the integrity of the exam for the institution. The service authenticates your identity and monitors both your computer screen and webcam to ensure academic integrity:

  - Fee based exam (About $30/3-hour exam) billed when you schedule the exam. Refunds are given only if the exam is canceled within 48 hours before the scheduled exam time.
• All appointments should be made at least 3 days in advance, since reservations made within 72 hours of your exam are subject to a late reservation fee.
• Web cam, microphone, and computer with internet connection are required.
• **ProctorU System Requirements and System Test**
• **How to Schedule Your Exam with ProctorU**

**Note:** Based on the above given grading formula, you will end the class with a percentage grade. Depending on the value of this percentage grade, I will use the following table to issue your *Class Grade.* **Assignment and Quiz grades will be posted on WebAssign and the two Test grades will be posted on the BlackBoard System.**

<table>
<thead>
<tr>
<th>Class Grade</th>
<th>Percentage Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>100 – 100</td>
</tr>
<tr>
<td>A</td>
<td>94 – 99</td>
</tr>
<tr>
<td>A-</td>
<td>90 – 93</td>
</tr>
<tr>
<td>B+</td>
<td>87 – 89</td>
</tr>
<tr>
<td>B</td>
<td>83 – 86</td>
</tr>
<tr>
<td>B-</td>
<td>80 – 82</td>
</tr>
<tr>
<td>C+</td>
<td>77 – 79</td>
</tr>
<tr>
<td>C</td>
<td>73 – 76</td>
</tr>
<tr>
<td>C-</td>
<td>70 – 72</td>
</tr>
<tr>
<td>D+</td>
<td>67 – 69</td>
</tr>
<tr>
<td>D</td>
<td>63 – 66</td>
</tr>
<tr>
<td>D-</td>
<td>60 – 62</td>
</tr>
</tbody>
</table>

**Office Hours:** I am more than happy to work with students via the internet using the free software [Google+ Hangouts](#). More info on this can be found on the [Course BlackBoard Page](#).

• Also, there may be a course TA who will hold walk-in and on-line Office Hours on UVM’s Campus at a time TBD. *I’m working on finding someone and I will let you know when I am successful.*

**Academic Assistance:** Students with documented learning disabilities are entitled by law to certain “reasonable accommodations.” If you have a documented reason for special accommodations, you must provide written evidence of this as soon as possible from the appropriate office. Further info can be found at the [Academic Support Program Offices](#).

**Late Work:** *Once a TEST is closed, you will not be able to complete it for a grade.* The schedule included below lists the closing dates to complete each ASSIGNMENT, QUIZ and TEST, and this will set a general pace for the course. However, as I stated previously, please do not hesitate to move at a quicker pace if you feel so inclined. **However, be aware that I cannot make an answer key available until after the closing date for each Test.**
**Class Schedule**: Here is the class schedule, including info on the sections covered and the ASSIGNMENTS, QUIZZES, and TESTS. Please note that all materials are available at the start of the semester, so please feel free to move at a quicker pace if you feel inclined to do so. However, please be aware that the two TESTS will only be live during the stated periods.

<table>
<thead>
<tr>
<th>Week</th>
<th>Sections Covered</th>
<th>Assign, Quiz, Tests</th>
<th>Week</th>
<th>Sections Covered</th>
<th>Assign, Quiz, Tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 19 to May 25</td>
<td>Chapter 12 Review</td>
<td>WebAssign 01, WebAssign 02, WebAssign 03 Quiz 01</td>
<td>June 30 to July 06</td>
<td>Sec. 15.6, Sec. 15.7, Sec. 15.8</td>
<td>WebAssign 16, WebAssign 17, WebAssign 18 Quiz 06</td>
</tr>
<tr>
<td>May 26 to June 01</td>
<td>Sec. 13.3, Sec. 13.4, Sec. 14.1</td>
<td>WebAssign 04, WebAssign 05, WebAssign 06 Quiz 02</td>
<td>July 07 to July 13</td>
<td>Sec. 15.9, Sec. 16.1, Sec. 16.2</td>
<td>WebAssign 19, WebAssign 20, WebAssign 21 Quiz 07</td>
</tr>
<tr>
<td>June 02 to June 08</td>
<td>Sec. 14.3, Sec. 14.4, Sec. 14.5</td>
<td>WebAssign 07, WebAssign 08, WebAssign 09 Quiz 03</td>
<td>July 14 to July 20</td>
<td>Sec. 16.3, Sec. 16.4, Sec. 16.5</td>
<td>WebAssign 22, WebAssign 23, WebAssign 24 Quiz 08</td>
</tr>
<tr>
<td>June 09 to June 15</td>
<td>Sec. 14.6, Sec. 14.7, Sec. 14.8</td>
<td>WebAssign 10, WebAssign 11, WebAssign 12 Quiz 04</td>
<td>July 21 to July 27</td>
<td>Sec. 16.6, Sec. 16.7</td>
<td>WebAssign 25, WebAssign 26 Quiz 09</td>
</tr>
<tr>
<td>June 16 to June 22</td>
<td>Chapter 12 Review Up thru and including Sec. 14.8</td>
<td>TEST 1</td>
<td>July 28 to Aug. 03</td>
<td>Sec. 16.8, Sec. 16.9 (Not Testing/Quizzing on 16.8-16.9)</td>
<td>No Assignment/Quiz on 16.8-16.9</td>
</tr>
<tr>
<td>June 23 to June 29</td>
<td>Sec. 15.1, Sec. 15.2, Sec. 15.3</td>
<td>WebAssign 13, WebAssign 14, WebAssign 15 Quiz 05</td>
<td>Aug. 04 to Aug. 09</td>
<td>Sec. 15.1 Up thru and including Sec. 16.7</td>
<td>TEST 2 (Sec. 16.8 – 16.9 not on Test 2)</td>
</tr>
</tbody>
</table>

**Due dates explained...kind of breaking the class into two ‘chunks’**.

- **WebAssign 01 to WebAssign 12 and Quiz 01 to Quiz 04** will be due at the end of the Test 1 week.
  - Due by 11:59 PM on June 22, 2019.
- **Test 1** must be completed by June 22, 2018 at 11:59 PM
  - Option 1: Take on UVM’s Campus on Thursday, June 20, 2019 at 10:00 AM in Kalkin 001
  - Option 2: Take via ProctorU during the period of June 20, 2019 to June 22, 2019

- **WebAssign 13 to WebAssign 26 and Quiz 05 to Quiz 09** will be due at the end of the Test 2 week.
  - Due by 11:59 PM on Aug. 9, 2019.
- **Test 2** must be completed by Aug. 9, 2019 at 11:59 PM
  - Option 1: Take on UVM’s Campus on Thursday, Aug. 8, 2019 at 10:00 AM in Kalkin 004
  - Option 2: Take via ProctorU during the period of Aug. 7, 2019 to Aug. 9, 2019