Fall 2015 MAT261-003(Draft)

Multivariate Calculus III OS 2004 12:00 PM – 12:50 PM M-F

Instructor: Dr. Xin Lu

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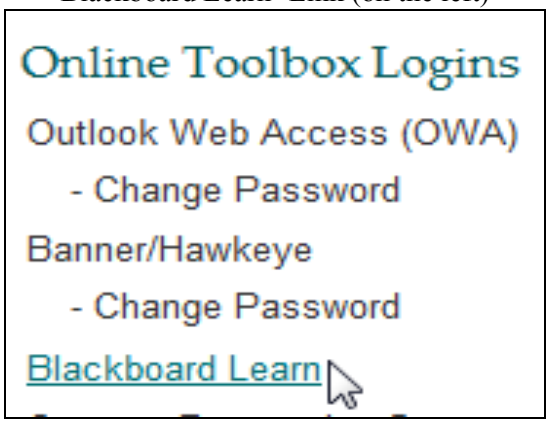
Office: OS1007C **Office Hours: M-F** 9:00AM-10:00 AM

⇨ **Textbook** **(As same as MAT161/162)**	⇨ **Blackboard LEARN**
Calculus, Early Transcendental **by James Stewart 7th Edition** **Topics(chapters) covered:** 12. Vectors and the Geometry of Space 13. Vector Functions 14. Partial Derivatives 15. Multiple Integrals. 16. Vector Calculus	**Access Portal via UNCW Current Student page** ' Blackboard Learn' Link (on the left)  **Login Procedure** **Username:** *your UNCW email account (without "@uncw.edu")* **Password:** *your password* ---------- If you have any Blackboard issues, contact TAC directly and immediately: 1.910.962.HELP. • **DO NOT USE 'MySeaport' Link**

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Course Catalog Description:

Prerequisite: MAT 162. Calculus of functions of several variables. Vectors and analytic geometry of three dimensional space; partial derivatives, gradients, directional derivatives, maxima and minima; multiple integrals; line and surface integrals, Green's Theorem, Divergence Theorem, and Stokes' Theorem. Three lecture and two laboratory hours each week.

Specific Minimal Expectations for Computer Use:

Calculus I
- Graphing and Graphical Analysis
- Newton's Method
- Riemann Sums
- Linear and Quadratic Approximations

Calculus II
- Function Approximation
- Convergence
- Parametric Equations
- Polar Equations

Calculus III
- Visualization of Vector Fields
- Graphing Surfaces
- Computation of Vector Quantities
- Evaluation of Nontrivial Multiple Integrals

Homework, Tests and Grading:

- **Test**: 15% each, 60% in total
- **Homework and quizzes**: 15%
- **Final Exam**: 25%

The final grade will be assigned according to:

$90\% \leq$ **A-** $< 92\%$; $92\% \leq$ **A** $\leq 100\%$;
$80\% \leq$ **B-** $< 82\%$; $82\% \leq$ **B** $< 87\%$; $87\% \leq$ **B+** $< 90\%$;
$70\% \leq$ **C-** $< 72\%$; $72\% \leq$ **C** $< 77\%$; $77\% \leq$ **C+** $< 80\%$;
$60\% \leq$ **D** $< 67\%$; $67\% \leq$ **D+** $< 70\%$;
F: below 60%.

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Exam Dates:

Exam #1: Friday, September 11

Exam #2: Friday, October 2

Exam #3: Friday, October 30

Exam #4: Friday, November 20

FINAL EXAM: Friday, December 4, 11:30AM – 2:30 PM

Incompletes: A grade of **I** (incomplete) is given only if approved documented circumstances beyond the student's control (e.g. medical, legal) render the student unable to complete the course work, and only if there is a reasonable possibility of passing the course. The grade **I** is not given simply failing to meet the course requirements.

Note: Productive and effective study skills are important. You probably have heard this before, but mathematics is not a spectator sport. Practice solving math problems regularly and checking your answers/work should also increase the likelihood that you can solve similar problems correctly, quickly, and independently. This can also help you determine the difficulty level you may actually have. It may also help you with delegating how much extra study time you may need and/or if you need to receive assistance outside of class. You may not really know, unless you practice the problems and check your answers. When seeking help, please provide any and all attempted work–this can increase the quality of the help you receive, as well as decrease the time.

Attendance: Being on time and regular class attendance are some aspects expected, as well as a respectable presence. Class attendance is one aspect that could help or harm the final grade of a student whose final average is on the borderline between two grades. A student who has **three or less** absences may replace the lowest test grade from the **first three exams by the highest of the five(including final)** An incomplete test is not replaceable. Four or more absences are considered excessive.

Religious Observance Policy: In accordance with North Carolina G.S. 116-11(3a), you are entitled to two excused absences for religious observances per academic year. In order to preserve your right to make up any tests or other work missed for religious observance required by your faith, you must inform the Registrar in writing of your intended absence before the end of the first week of class.

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Academic Honor Code and Seahawk Respect Compact: Please refer to Section V in your student handbook and Dean of Students' website (http://www.uncw.edu/stuaff/doso/) about Academic Honor Code for the definition and procedures about academic dishonesty offenses. The Seahawk Respect Compact (http://www.uncw.edu/diversity/src.html) expresses the core values essential to an open, respectful learning and working environment.

Disability Services: If you have a disability and require accommodations for this course, you need to inform me of this in writing within the first week of class or as soon as possible. If you have not already done so, you must register with the Office of Disability Services in Westside Hall (EXT. 2-7555) and obtain a copy of your Accommodation Letter. YOU MUST PROVIDE A COPY TO ME. You should then meet with me, as soon as possible, to make mutually agreeable arrangements based on the recommendations of the Accommodation Letter and resources available. YOU ARE RESPONSIBLE FOR ADHERING TO THE REQUIREMENTS AND PROCEDURES OUTLINED FOR YOU. More information and resources are available at **http://www.uncw.edu/stuaff/disability/.**

The UNCW Statement on Diversity in the University Community: As an institution of higher learning and excellence, the University of North Carolina Wilmington represents a rich diversity of human beings among its faculty, staff, and students and is committed to maintaining a campus environment that values that diversity. Accordingly, the university supports policies, curricula, and co-curricular activities that encourage understanding of and appreciation for all members of its community and will not tolerate any harassment or disrespect for persons because of race, gender, age, color, national origin, ethnicity, creed, religion, disability, sexual orientation, political affiliation, marital status, or relationship to other university constituents.

Zero Tolerance Policy: UNCW practices a zero tolerance policy for violence and harassment of any kind. For emergencies contact UNCW CARE at 962-2273; Campus Police at 962-3184; or Wilmington Police at 911. For University or community resources visit: **http://www.uncw.edu/safe-relate/campusResources.htm**. Violence prevention information and resources are available at **http://www.uncw.edu/safe%2Drelate/**.

Cell Phones, PDAs, Laptops:

Please silence your cell phone and do not make calls, access applications or text during class. If you have a personal, urgent matter for which you need to be on call, please let me know in advance and/or quietly step outside. In addition, please do not have any PDAs or laptops/netbooks/iPads, etc. open or powered on during lectures.

THE UNIVERSITY LEARNING CENTER

Web address: www.uncw.edu/ulc

DePaolo Hall 1056 & 1003, 1st floor **Tel:** 910.962.7857

The University Learning Center's (ULC) mission is to help students become successful, independent learners. Tutoring at the ULC is NOT remediation: the ULC offers a different type of learning opportunity for those students who want to increase the quality of their education. ULC services are free to all UNCW students and include the following:

- Learning Services
- Math Services
- Study Skills
- Writing Services.

The ULC's hours are shorter at the beginning of the semester, during exams, and during the summer, but typically the ULC is open.

Emergency Hotline: (910) 962-3991 or toll free (888) 657-5751