

**SYLLABUS AND COURSE INFORMATION**  
**FALL 2017-MATH 205, CALCULUS III**  
**SECTION 71518 7:15-9:20 PM TTH P-1**

**INSTRUCTOR INFORMATION**

**Instructor:** Craig Chamberlin  
**Office Hours:** 1:10-2:00 MWF, 3:00-3:50 TTH  
**Email:** cchamberlin@palomar.edu  
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**Office:** F-5  
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**COURSE DESCRIPTION**

**Text:** *Multivariable Calculus*, 8<sup>th</sup> ed. Stewart

**Prerequisites:** Grade of "C" or better in Mat 141

**Course content:** Chapters 12-16

- Course objectives:**
1. Apply operations on vectors and solve applied problems with vectors.
  2. Solve problems and graph in rectangular, cylindrical, and spherical coordinates.
  3. Calculate limits, derivatives, and integrals of vector-valued functions.
  4. Calculate arc length, curvature, tangential and normal components of acceleration, and velocity of vector-valued functions.
  5. Calculate partial derivatives.
  6. Calculate differentials, directional derivatives, and equations of tangent planes.
  7. Solve applied problems using 2nd-partials test and Lagrange Multipliers.
  8. Set up and calculate double and triple integrals using the three coordinate systems.
  9. Change variables in multiple integration using Jacobians.
  10. Use multiple integration to solve applied problems.
  11. Set up and calculate line integrals and surface integrals.
  12. Apply Green's Theorem, the Divergence Theorem, Stokes Theorem, and the Fundamental Theorem of Line Integrals.

**Course SLO:** Perform calculus on vector valued functions.

**BASIS FOR EVALUATION:**

	<u>% OF POINTS</u>	<u>LETTER GRADE</u>
1. Three in-class tests will be 65% of your grade.	90-100	<b>A</b>
2. Homework/quizzes will be 10% of your grade.	80-89	<b>B</b>
3. A comprehensive final exam will be 25% of your grade.	70-79	<b>C</b>
	60-69	<b>D</b>
	0-59	<b>F</b>

**COURSE INFORMATION**

**Calculators:** You need a graphing calculator to successfully complete this course. However, calculators that perform symbolic calculations (like the TI-89) and cell phone calculators are strictly prohibited. I recommend TI-84 Plus.

- Homework:** One section of homework will be collected at random on a weekly basis. Start each section on a new sheet of paper. If necessary, staple multiple pages from a particular section together, but keep different sections separate from one another so that I can collect a single section at a time. In-class work/quizzes may be collected and graded as homework as well.
- Class work:** I occasionally assign problems that are to be completed in class. Sometimes I collect the class work and grade it as homework.
- Work load:** Most students should spend at least 8 hours per week studying outside of class.
- Tutoring:** You can get additional help at the Mathematics learning Center, located in MC-5.
- Make up:** No one may make up tests or quizzes without an institutional excuse or a doctor's note. Late homework will not be accepted, instead I'll drop your two lowest homework scores.
- Absences/tardies:** Regular, on-time, attendance is expected and necessary for successful completion of this course. A student with more than two unexcused absences/tardies may be withdrawn from class at my discretion.
- Withdrawal:** It is the responsibility of the student to withdraw from a class. Note that October 14 is the last day to withdrawal for a grade of "W."
- Disabled Students:** If you require accommodations for a disability, please let me know and contact Disabled Student Programs & Services at extension 2375.
- Academic Integrity:** Students are expected to adhere to the [Palomar College Code of Conduct](#). Cheating will not be tolerated, and an offender will earn a score of 0 on the relevant work.

### Tentative Schedule

Week Starting Dates (Mondays)	Activities
August 21	12.1-12.3
August 28	12.4-12.6
Sept. 4 ( <b>Holiday on 4<sup>th</sup></b> )	<b>Test 1 Part I</b> , 13.1-13.3
Sept. 11	13.4, 14.1
Sept. 18	<b>Test 1 Part II</b> , 14.2, 14.3
Sept. 25	14.4-14.6
Oct. 2	14.7, 14.8
Oct. 9	<b>Test 2</b> , 15.1, 15.2
Oct. 16	15.3-15.5
Oct. 23	15.6, 15.7
Oct. 30	15.8, 15.9
Nov. 6 ( <b>Holiday on 10<sup>th</sup></b> )	<b>Test 3</b> , 16.1, 16.2
Nov. 13	16.3-16.5
Nov. 20	<b>Fall Break!</b>
Nov. 27	16.6-16.7
Dec. 4	16.8, 16.9
Dec. 11	mop up, <b>Final Exam</b>