



Math 20

Course Information Sheet

Textbook: James Stewart, Redlin, Lothar and Watson, Saleem, **Precalculus: Mathematics for Calculus**, 6th ed, Cengage, 2012.

Course Outline of Record: Every section of M20 is required to cover all of the material as listed on the Course Outline of Record. The outline is our contract with our transfer institutions, with each other and with our students. Failure to follow the outline puts your students at a disadvantage, leads to discrepancies across the sections, and problems for the students in their next course. An instructor who does not attempt to follow the course outline risks the possibility of not being able to teach that course again at LPC. All course outlines of record can be found on the Las Positas College Website under Programs/Courses.

http://www.laspositascollege.edu/programs/course_outlines/math_index.php

Example Syllabus and Calendars to aid in pacing of the material can be obtained by contacting Lilia Camino, our Division Assistant at (925) 424-1184.

Suggestions regarding content:

- 1) When covering material which is review from algebra and trigonometry courses, emphasize those aspects of the material that are most pertinent to the study of calculus
- 2) Trigonometry is a prerequisite for this course. It is suggested that you spend no more than 3 weeks on the review of trigonometry. You may treat lightly, or omit, the following:
 - a. Graphs of tangent, cotangent, secant and cosecant involving phase shift, expansion or contraction, and vertical shift
 - b. Sum-Product formulas
- 3) Skip complex numbers and roots (3.5-3.6)
- 4) Skip polar form of complex numbers and De Moivre's Theorem (8.3).
- 5) Skip plane curves and parametric equations (8.4)
- 6) Skip 3-D coordinate geometry (9.3-9.6)
- 7) Skip all of Chapter 10, except partial fractions (10.7).
- 8) Skip polar equations of conic sections (11.6)
- 9) Skip mathematics of finance (12.4)
- 10) Skip all of Chapter 13

Student Learning Outcomes: Student Learning Outcomes, SLOs, are learning proficiencies the Department feels every student enrolled in our math classes should be encouraged master. The course-level SLOs for Math 20 connect with our program level SLOs of: **Modeling** and **Problem-Solving**. These course-level SLOs should be listed in your syllabus for the course. Please refer to the Mathematics Department website for more SLO information.

Upon successful completion of Math 20, a student should be able to demonstrate:

- the ability to model a problem using exponential growth or decay (Modeling).
- the ability to graph a rational function without a graphing utility (Problem Solving).
- the ability to find a partial fraction decomposition (Problem Solving).

Math Lab Requirements: There is a required TBA lab hour attached to this course, part of the course outline of record. Your syllabus must state that students are required to attend the lab for one hour per week for a minimum of 17 lab hours over the semester. The Open Math Lab provides a place for students

to get the help they need to succeed in math. To satisfy their lab requirement, students must go to the **Integrated Learning Center**, ILC, to work on lab assignments, created by you. Lab assignments must be something more than doing homework. There are many examples of good math labs that the department is currently collaborating on; we encourage you talk with other instructors and share labs. To allow for maximum flexibility, the hour is TBA (to be arranged) rather than scheduled. More information will be mailed to you before the beginning of the semester.

