

# PRECALCULUS I

## 640:111

### Course Description

01:640:111 Math 111 CMA	<p><b>Precalculus I (2)</b>  <i>Prerequisite: 01:640:026 or appropriate performance on the placement test in mathematics. Corequisites: 01:640:011 for 01:640:111. This course with 01:640:112 covers the same material as 01:640:115, but at a slower pace. Students may not receive more than 4 normal credits for any combination of 01:640:111-112, and 115.</i></p> <p>Algebraic expressions, algebraic equations, inequalities, functions, and graphing.</p>
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### SYLLABUS

Text: Stewart, Redlin, and Watson, <i>Precalculus: Mathematics for Calculus</i> , 5th Ed., 2006: Thomson Brooks/Cole Publishing Co. (ISBN: 0-534-49277-0; ISBN13: 9780534492779)			
Lecture	Sections	Topics	Homework Problems
1	1.1	The Real Numbers; Begin Exponents and Radicals.	#8,25,33,34,37,44,49,50,63,72
	1.2		#9,27,44,71,73,75,77,90,92
2	1.2	Finish Exponents and Radicals.	#4,15,16,17,42,48,49,51,66,68,85,86,94,95
3	1.3	Algebraic Expressions; Begin Fractional Expressions.	#15,21,24,29,30,31,32,75,86,92,94,97,103,104,105
	1.4		#25,27,34,38,43,47
4	1.4	Finish Fractional Expressions.	#51,58,63,71,80,81,87,89,92
5	1.5	Equations.	#1,3,13,15,16,25,27,34,42,49,55,57,75, 79,80,82,83,86,96,97,112
6	1.6	Modeling with Equations.	#5,11,15,17,25,36,42,49,53,55,59,61,62,65,67,68,70
7	1.7	Inequalities.	#9,25,27,29,33,40,49,52,54,55,61,64,69,87,101,106
8	1.8	Coordinate Geometry.	#3,13,21,26,27,28,33,44,55,56,60, 71,75,83,84,85,89,90
9	Catch up and Review.		
10	<b>EXAM I</b>		
11	1.9	Solving Equations and Inequalities Graphically.	#3,6,9,20,24,35,37,38,41,42,54,55
12	1.10	Lines.	#3,11,16,23,26,28,31,33,38,45,50,54, #56,57,65,67,68,71,72
13	2.1	Functions.	#3,4,7,8,13,15,16,22,23,32,33,35,39,40,49, 50,51,52,54,60,62,69,71,72,73
14	2.2	Graphs of Functions; Increasing and Decreasing Functions (Skip Average Rates of Change)	#8,12,19,23,25,26,31,36,41,42,46,50,53,55,60,74,75,78,89
	2.3		#1,4,9,11
15	2.4	Transformations of Functions.	#2,4,6,8,19,21,22,27,41,42,45,46,49,50,53,64,69
16	2.5	Quadratic Functions: Maxima and Minima.	#9,12,29,32,46,55,61,63,66
17	2.6	Modeling with Functions; Modeling Variation.	#3,6,12,13,14,23,24,29,30,31
	1.11		#11,13,16,17,20,27,35
18	Catch up and Review.		
19	<b>EXAM II</b>		
20	2.7	Combining Functions.	#3,4,11,12,14,17,18,20,21,25,26,37,39,49,50,57,61,62
21	2.8	Begin One-to-One Functions and Their Inverses.	#3,4,5,6,13,14,18,19,27,29
22	2.8	Finish One-to-One Functions and Their Inverses.	#39,40,41,45,48,52,58,65,66
23	3.1	Polynomial Functions.	#3,4,5-10,13,14,15,23,39,49,50,58,66,68, 77,79
24	3.2	Dividing Polynomials.	#1,2,7,11,14,16,21,26,32,40,45,52,58
25	3.4	The Arithmetic of Complex Numbers; Complex Roots.	#4,10,11,12,25,30,33,35,48,62,63
	3.5		#5,6,19,21,31,34,46,48,52,60,61
26	3.6	Rational Functions.	#3,9,11,12,17,18,33,34,49,50,67,68,69,70,75,76,77
27	Material on Modeling (pp 239-247).		pg 243 #2,5,8,10
28	Catch up and Review		