MATH 155 SPRING 2002

INSTRUCTOR: **OFFICE:** **PHONE:**
E-MAIL: **OFFICE HOURS:**
WEB PAGE: www.math.niu.edu/courses/
TEXT: Algebra and Trigonometry by Sullivan 6th edition.
GRADES: Your grade will be based on a total of 600 points as follows:

3	Exams	300
1	Final Exam	200
	Quizzes/Homework	100
	Total	600

LECTURE SCHEDULE

WEEK	DATES	SECTION	TOPIC
1	Jan. 14 - 18	3.1	Relation vs. Function, Notation, Domain, Graph
		3.2, 3.3	In/Decreasing, Even/Odd, Local Max/Min, Piecewise
		3.4, 3.5	Transformations, Operations, Composite Functions
2	Jan. 21	No class	
	Jan. 22 - 25	3.6	Mathematical Models, Constructing Functions
		6.1	One-to-One Functions, Inverse Functions
3	Jan. 28 - Feb. 1	6.2	Exponential Functions and Equations
		6.3, 6.4	Logarithmic Functions and Equations, Properties
		6.5, 6.7	Solving Equations, Growth and Decay
4	Feb. 4 - 8	6.7	Growth and Decay continued
		Review	
		EXAM I	
5	Feb. 11 - 15	7.1	Radians, Conversion, Arc length, Area of a sector
		7.2	Right Triangle Trigonometry, Cofunctions
		7.3	Exact values, Approximate Values
6	Feb. 18 - 22	7.4	General Angles, Coterminal and reference angles
		7.5	Unit circle, Properties of Trig Functions, Domains
		7.6	Graphs of Sine and Cosine, Amplitude, Period
7	Feb. 25 – Mar. 1	7.7	Graphs of Tangent and Cotangent, Transformations
		7.8	Sinusoidal Graphs, Phase shift
		8.1	Inverses, Domains, Exact values

WEEK	DATES	SECTION	TOPIC
8	Mar. 4 – 8	8.2	Inverse Trigonometric Functions continued
		Review	
		EXAM II	Mar. 8 – Last day to withdraw
9	Mar. 9 – 17	SPRING BREAK	
10	Mar. 18 – 22	8.3	Trigonometric Identities
		8.4	Sum and Difference Formulas
		8.5	Double, Half-angle Formulas
11	Mar. 25 – 29	8.7	Trigonometric Equations (I)
		8.8	Trigonometric Equations (II)
		9.1	Applications Involving Right Triangles
12	Apr. 1 – 5	9.2	Law of Sines, Applications
		9.3	Law of Cosines, Applications
		10.1	Polar Coordinates, Conversion
13	Apr. 8 – 12	10.2	Polar Graphs
		10.4	Vectors, Magnitudes, Unit Vectors
		11.1, 11.2	Conics, Parabolas
14	Apr. 15 – 19	11.2	Parabolas – Applications
		Review	
		EXAM III	
15	Apr. 22 – 26	11.3	Ellipses
		11.3	Ellipses – Applications
		11.4	Hyperbolas
16	Apr. 29 – May 2	11.4	Hyperbolas – Applications
		Review	
	May 3	Reading Day	Friday
	May 6	FINAL EXAM	Monday **Evening** 8-9:50 **p.m.**

MATH 155 SPRING 2002

Section	Exercises
3.1	14 39 41 43 47 48 50 51 52 53 54 55 61 77 93 97
3.2	11 13 15 16
3.3	1 2 3 4 5 6 7 8 31 32 33 34
3.4	1 2 3 4 5 6 7 8 9 10 11 12 29 33 35 47 63 71
3.5	7 9 13 14 15 17 23 24 25 26 27 28 29 30 39 43 51 53 73 74
3.6	7 8 18 23 24 25 31 32 35 36
6.1	9 10 11 12 13 14 21 23 29 33 37 42 45 51 55 56 64 65 66
6.2	11 12 13 14 15 16 17 18 27 28 29 30 31 32 33 34 35 37 39 41 43 45 47 49 51 61 62 68
6.3	26 31 35 36 37 38 43 44 53 54 55 56 57 58 59 60 61 63 65 67 69 71 79 80 85 86 87 88 103 104 106 107
6.4	3 4 6 17 18 19 20 21 22 23 24 31 39 45 69 70 71 72 73 74 75 76 77 78
6.5	9 11 16 31 41 42 43 44
6.7	1 5 11 12 13 16 17 18 19 24
7.1	7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 53 54 55 56 85 86 89 90 97 102 105
7.2	1 3 5 7 9 15 16 19 20 21 22 45 46 47 58 59 62
7.3	1 2 3 4 5 6 7 8 9 10 11 12 18 20 21 23 48 49
7.4	1 3 5 7 9 45 46 47 61 62 67 69 73 74 75 87 91 106
7.5	1 3 9 22 27 37 38 39 40 41 42 47 51 75 76 77 78
7.6	1 2 3 4 5 6 7 8 9 10 11 12 13 15 17 19 21 23 25 27 31 37 39 40 41 42 43 44 45 46 47 48 53 55 67 69 71 73 75 84

7.7 1 2 3 4 5 6 7 8 9 10 11 12 13 14 21 33

7.8 1 3 9 11 13 15 17 18

8.1 1 2 3 4 5 6 7 8 9 10 11 12 17 20 33 34 35 36 37 38 39 40 41 42 43

8.2 2 3 4 6 9 13 14 15 16 28

8.3 13 15 21 23 34 45 46 50 52 53 65 71 80 82 83 84 85 86

8.4 1 2 3 4 9 10 19 21 23 25 27 29 31 32 35 36 41 53 55 56 57 59 61 75 76

8.5 1 3 5 7 9 11 15 21 24 29 30 31 32 35 36 46 51 53 55 57 69 70

8.7 1 2 3 4 7 13 14 15 16 19 26

8.8 1 4 13 16 18 37

9.1 1 3 5 7 9 11 13 21 23 27 28 32 36 42 43 44

9.2 1 3 9 15 17 21 23 29 30 31 32 36 40

9.3 1 5 9 17 28 31 35 36

10.1 1 2 3 4 5 6 7 8 12 13 14 29 31 35 37 45 47 49 51 57 59 65 68 71 72

10.2 1 3 5 7 9 17 18 19 20 21 22 23 24 25 29 33 37 41 49 50 51

10.4 9 10 11 12 13 14 15 16 17 18 21 23 27 35 37 41 57 59 63

11.2 1 2 3 4 5 6 7 8 9 13 17 21 29 34 37 39 45 48 51 53 60 65

11.3 1 2 3 4 5 7 9 11 15 17 19 21 23 25 26 31 33 37 41 43 45 47 49 63 64 65 66 70

11.4 1 2 3 4 5 9 11 17 19 25 26 27 29 31 33 37 41 45 53 55 62