MAT121 Precalculus: Algebra- SUNY Adirondack

Syllabus and Course Information

Fall 2017

Instructor: Ms. Hall

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Phone: (518) 632- 5222 Ext. 413

Required Materials: Textbook: *Precalculus Mathematics for Calculus*. 7th Edition, Stewart,

Redlin, and Watson

Graphing Calculators: TI-83, TI-83 Plus, TI-84, TI-84 Plus, TI-84 CE,

TI-Nspire with 84 faceplate.

3-ring binder with looks leaf paper or 3-subject notebook

Course Description: A preparation for calculus through an extensive study of the theory of non-trigonometric functions. Function families include polynomial, rational, and radical functions.

Content:

1. Polynomial functions and their graphs
2. Piecewise defined functions
3. Function arithmetic
4. Rational functions, expressions, and equations
5. Inverse functions and function composition
6. Radical functions, expressions, and equations
7. Complex numbers

Objectives: Upon successful completion of this course, student will be able to:

1. Classify functions based on numerical, graphical, and symbolic characteristics into the polynomial, rational, and radical function families;
2. Apply the function theory (combinations, inverses, piecewise defined, sums, differences, products, and quotients) to construct and interpret functions;
3. Solve equations and inequalities graphically, numerically, and analytically;
4. Recognize reasonable answers and employ estimation skills;
5. Demonstrate an understanding of the real number system;
6. Use algebraic properties to simplify polynomial, rational, and radical expressions;
7. Interpret a real world problem situation to formulate a mathematical model and solve the problem ;
8. Explain the acquired mathematical concepts verbally and in writing.

Expected Student Learning Outcomes:

1. Students will demonstrate the ability to interpret and draw inferences from mathematical models such as formulas, graphs, tables, and schematics
2. Students will demonstrate the ability to represent mathematical information symbolically, visually, numerically, and verbally.
3. Students will demonstrate the ability to employ quantitative methods such as arithmetic, algebra, geometry, or statistics to solve problems.
4. Students will demonstrate the ability to estimate and check mathematical results for reasonableness.
5. Students will demonstrate the ability to recognize the limits of mathematical and statistical methods.

**Classroom Rules**

~Observe and follow all school rules listed in your handbook.

~ Homework will be given every night and collected everyday. I will answer any questions from homework assignments.

~ Cheating in any form is strictly prohibited. If I catch you cheating an automatic zero will result.

**Method of Evaluation**

Homework- 25%

Tests/Quizzes- 35%

Final Exam- 40%

**Free Periods:** 1st, 4th, 8th (HS Study Hall)

**Remind:**  Text: @8e94eb

To: 81010

**Letter Grades**

A 93-100

A- 90-92

B+ 87-89

B 83-86

B- 80-82

C+ 77-79

C 73-76

C- 70-72

D 65-69

F below 65