Foundations of Math 11
Course Outline

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I. OBJECTIVES

A. **KNOWLEDGE** – As a result of this course, we hope the students will learn more about:

1. **INDUCTIVE AND DEDUCTIVE REASONING**
   Making & Proving Conjectures
   Using reasoning
   Proofs
   Puzzles and Games

2. **PROPERTIES OF ANGLES AND TRIANGLES**
   Parallel Lines
   Angles formed by parallel lines
   Angle properties in Triangles & Polygons

3. **ACUTE TRIANGLE TRIGONOMETRY**
   Sine Law
   Cosine Law
   Acute Triangles

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4. **OBLIQUE TRIANGLE TRIGONOMETRY**
   . Obtuse Triangles
   Applying Sine and Cosine Laws for Obtuse Triangles

5. **STATISTICAL REASONING**
   . Exploring Data
   Standard Deviation
   Normal Distribution
   Z-Scores

6. **SYSTEMS OF LINEAR INEQUALITIES**
   ·   Graphing linear inequalities to solve them

7. **QUADRATIC FUNCTIONS AND EQUATIONS**
   Exploring quadratic relations
   Factoring to solve quadratic equations

8. **PROPORTIONAL REASONING**
   Solving problems that involve rates
   Scale diagrams
   Scale factors

B. **SKILLS** – Students will further develop these educational skills in this course.

1. **Process Skills**
   ·   Defining terms, formulating and solving equations
   ·   Organizing data and interpreting results

2. **Communication Skills**
   ·   Oral and written through recording information, answering questions and expressing ideas

3. **Reading Skills**
   ·   Through both oral and silent reading sessions

II.   SUPPLIES NEEDED
1. Metric ruler (at least 15 cm)
2. Pencils (2)
3. Pens (1 red, 1 blue)
4. 1" course ring binder
5. Loose-leaf paper
6. 3 Dividers
7. a personal agenda (or calendar)
8. a scientific calculator
9. Graph paper

III. GENERAL CLASS RULES

1. It is expected that students will behave in a responsible considerate manner at all times.
2. Students are expected to work quietly on their own, unless instructed to do otherwise.
3. It is expected that students will have **fun** each and every class.

IV. NOTEBOOKS

1. Your notebook (3 ring binder) will contain 3 dividers and is required to be organized in the following manner:
   i. Notes
   ii. Assignments
   iii. Tests & Quizzes

V. CLASS FORMAT

During the term we will be hosting 3 classes a week for Math 11. I will provide an approximate schedule of what topic will be covered in each class.

VI. ATTENDANCE & LATES

Students are recommended to attend every class. If you are absent please come see me when you return to get the work you missed while you were away.

VII. TESTS & QUIZZES

Quizzes will be given at the end of every chapter that will review topics that we have covered. This will allow me to pinpoint and identify difficult topics. Students will write a cumulative test at the end of the term.

To help you be more successful, and to better prepare you for the future, we expect you to write your term final exams only after successful completion of all assignments with a passing grade in the course.

There will only be 2 opportunities to write end of term exams. All students are expected to write on the 1st exam date, and the 2nd date will be available for students with previous permission or students in need of a re-write.

VIII. ASSESSMENT

You class mark will be derived from the following:

Assignments	40%
Projects	30%
Tests & Quizzes	30%

IX.   HELP I DON'T GET MATH!

Please don't fret and worry! We are in this together! I will have office hours on Tuesday from 3:00 to 3:30 if you need extra help.

I have provided a link below that may be of assistance where you can look up specific tutorials of the math topics we are covering. This will allow you to watch each topic several times until it becomes clear.

Khan Academy
https://www.khanacademy.org/math

I am very excited to be a part of your learning journey! I look forward to "changing your life forever" in the upcoming year!

Lorrie Burnham