MTH1103 College Math
Course Syllabus

COURSE REQUIREMENTS
This college math course is an entry level course. All students can take this course.

COURSE DESCRIPTION
This course covers an array of concepts. It addresses the history of mathematics, brushes up math skills from high school and early college studies, and relates how math is so important for our everyday lives. Topics will include: fractions, exponents, algebra, and formulas. This course will emphasize student preparation, critical thinking, and problem solving.

You will learn how mathematics impact your daily life. Real world applications include calculating square footage, adding decimals (money), and calculating percentages (sales prices). You will also learn about the Fibonacci sequence and the golden ratio. You will boost your confidence and capability to advance in your mathematical ability.

LEARNING OBJECTIVES
The student will examine fundamental operations and properties of whole numbers, integers, rational numbers, and real numbers, including decimals, ratios, percent, and exponents. This course will provide an active and intense survey of essential math concepts up to and including algebra and geometry. A concise history of the development of mathematical concepts will be inspected. This course also explores the Fibonacci sequence and the golden ratio. By the end of this course, all students should:

- Recall the required process and methods for computing arithmetic operations with rational numbers
- Discern what each computation means on a conceptual level
- Apply their understanding of the concepts and utilize appropriate computations to solve application problems
- Execute algebraic operations on rational and exponential expressions
- Solve linear equations and convey the results in numerical form
- Apply algebraic and exponential functions to solve uncomplicated applications
- Convert between fractions and decimals and between standard and metric measurements

ATTENDANCE
Attendance is mandatory for all students. Excellent attendance is imperative for mastery and application of the information dispensed. Whether you are sitting at a desk in a classroom or attending via Skype, your attendance is vital to your success. Late arrivals are distracting and disrespectful. Please refrain from being tardy.
Grades will be affected by absences and tardiness. Participation in class is a prerequisite. You learn from lectures, discussions and presentations.

CLASSROOM BEHAVIOR
Students are expected to treat all persons with respect. We should all conduct ourselves in a courteous and responsible manner. Be considerate, you can disagree, don't insult.

Please set all your electronic devices to silent during class so as not to be a disturbance to others in the class.

TUTORIAL ASSISTANCE
We maintain an open-door policy for our students. We are absolutely willing to discuss any matter that may arise during the course. If you have any questions, problems, or need help with the course material, we urge you to reach out as soon as the issue arises. If you want to contest a grade, you must do so within 48 hours and put it in writing. Please ask your student advocate for help. If you do not have a student advocate send an email to: tutordept@usilacs.org.

NON-DISCRIMINATORY STATEMENT
All students regardless of age, race, gender, religion, physical disability, class, etc., shall have equal opportunity without harassment in this course. Any problems with or questions about harassment can be discussed confidentially via email at: hr@usilacs.org.

DRESS CODE
For students enrolled who are attending in a classroom or via Skype, please be sure you are dressed modestly and respectfully. Please refer to www.merriam-webster.com/dictionary/business%20casual. NO short shorts or skirts. Avoid low-cut tops. We want to present ourselves in a dignified manner at all times.

NETIQUETTE
- Always read through all the comments of the class before responding. This will avoid duplicating comments or questions asked.
- Avoid language that could be offensive. All profanity is strictly prohibited. Remember that using all caps when replying online signifies shouting. This would be rude and combative.
- Be sensitive to the fact that there will be fellow students from all parts of the world with many differing backgrounds and languages. Remember that slang and idioms will most likely be misconceived and/or misinterpreted. These should be avoided.
- Respect others views or opinions.
- Be thoughtful of the privacy of others. Ask permission before sharing email addresses or other personal information.
- Do not forward inappropriate material such as: virus warnings, chain letters, jokes, etc. The sharing of pornographic material is strictly prohibited.
- Use good spelling and grammar. Avoid using texting shortcuts.

- Strive to compose your comments in a positive, supportive and constructive manner at all times.

Any of these offenses will be dealt with by the school disciplinary committee.

ADA ACCOMMODATIONS

All reasonable accommodations will be provided for students with disabilities. Any student attending USILACS who needs an accommodation due to a chronic challenge (i.e. blindness, deaf or hard of hearing, mobility issues, psychological, or learning disability), register with:

USILACS Registrar's Office
1221 Brickell Ave.
Miami, FL 33131
1-305-330-2202
registrarsoffice@usilacs.org

ACADEMIC DISHONESTY/CHEATING

We encourage collaborating with others, either in person or online, to study and learn. When you complete your assignments or your exams, however, the wording has to be your own.

Plagiarism is the theft of someone else's work and ideas. You are permitted to cite or even quote someone else, however, you must properly cite them. There are two accepted ways of doing this. They are known as Modern Language Association (MLA) or American Psychological Association (APA). You can visit www.citationmachine.net for help in correctly citing information.

As a school that strives to maintain high moral standards, we strongly caution our students to be ethical and honest. Endeavor to be honest in conducting yourself in regard to any coursework you accomplish or exams you may take. Cheating is a dishonest practice.

REFERENCE MATERIALS

The vast majority of textbooks are outdated by the time they are published. USILACS education programs are not based upon outdated printed textbooks. USILACS programs are based on the most accurate and reliable knowledge available; specifically, up-to-date vetted internet-based information.

For those who would like some reference or Internet search recommendations, we would recommend the following.

(2012) CK-12 Trigonometry: CK-12 Foundation.
(2011) Lecture Notes for Most Math Classes Taught at Lake Tahoe Community College: Larry Green
(2017) "Map of Mathematics." The domain of Science.
(2016) "The beauty and power of mathematics." William Tavernetti,

(2016) "What is a Vector?" David Huynh. Ted-Ed.
(2015) "Mathematics in Real Life.{ MrBMaths.
(2015) "The absurd golden ratio." Robb Enzmann. TEDxMiami University.

MINIMUM REQUIRED SUPPLIES
All students will need all of the following:
- Computer with camera, microphone, and speakers.
- Skype installed on the computer with an active Skype account.
- Internet
- Printer
- Notebook paper
- Pens/pencils

If the student does not have a computer or internet, there will be some available for use at the school in the computer lab.

GRADING SYSTEM
There will be three tests throughout the course. Each test will count for 33.3% of the final grade.

Grade	Percentage	Grade Point
A+	99	4.0
A	97	3.8
A-	94	3.7
B+	89	3.3
B	85	3.0
B-	81	2.7
C+	77	2.3
C	73	2.0
C-	69	1.7
D	66	1.0
F	59	0.0

All students must earn at least a "D" in order to pass the class.

ASSIGNMENTS
Report on a person of interest in the mathematical field-
Pick a person that was influential in coming up with a mathematical theory. Report on his/her background, what led to the discovery, how it is applied in the field of math? This should be at least 1,000 words in length.

Graph of knobs per room of your house-
Make a graph showing how many knobs you have in each room of your house. This can be a line, bar or circle graph.

Catering recipe conversion-
Your recipe for coleslaw is as follows:

½ cup mayonnaise
2 Tablespoons sugar
1 ½ Tablespoons lemon juice
1 Tablespoon vinegar
½ teaspoon black pepper
¼ teaspoon salt
This recipe makes six servings. You are having an anniversary party with 94 guests.
How much of each ingredient would you need to make enough for everyone?

WEEKLY ASSIGNMENTS

Week 1	Overview of course and coursework Ancient mathematics in Egypt and Babylon
Week 2	Fibonacci sequence Pure and complex mathematics
Week 3	Game theory Value of pi
Week 4	Vectors, matrices, scalars, tensor family *Report on a person of interest due*
Week 5	Video review and Exam
Week 6	Converting degrees to Celsius and mph to meters/second
Week 7	Fractal geometry Order of operations
Week 8	Reading charts/graphs Story problems Standard versus metric measurements *Graph of knobs per room due*
Week 9	Video review and Exam
Week 10	Areas of shapes Percentages
Week 11	Fractions, decimals, fractions to decimals
Week 12	Probability Exponents *Catering recipe conversion due*
Week 13	Video review and Final exam