<div align="center">**Summer 2021: MAT 517/MAE 330**</div>

<div align="center">**Calculators and Computers for Teachers**</div>

Instructor: Dr**.** Alaa Abd-El-Hafez
Email: alaa.abdelhafez@stonybrook.edu
Class Time: Tu & Th from 6:00 to 9:25 PM
Office Hours: Tuesday: 3:00 – 5:00 PM
                Thursday: 5:00 – 6:00 PM
                Office hours will be on Zoom. The link is:
          https://stonybrook.zoom.us/j/8189776222

Course Description: This is a 3-credit course designed to help students use technology in facilitating their instruction. Students will use *Latex* to create mathematical documents (eg., exams) and communicate mathematical ideas in writing. They will use *ActivePresenter and Prezi* to create math lesson plans and explain a given topic. Students will also create their own websites for use in teaching mathematics. *Geogebra* and/or *Geometers Sketchpad* will be used to create pedagogical demonstrations. Students will use a graphing calculator for computing and curve sketching and design a gradebook using Excel.

This course will be delivered online on zoom during the same/day time the class is scheduled to meet. Class maybe recorded.

Here are the instructions:

1) Go to *blackboard,* click on *"Zoom Meeting"*
2) You may have to download the "pop-ups" if this is your first time using Zoom.
3) Done! You are in class.
4) You must have headphones.

Materials Required: A working laptop with a camera and a microphone for participation.

Grading:
- Presentations and Participation (15%)
- Assignments (40%)
- Quizzes (5%)
- Teach Your Peers Project (10%)
- Final Project (30%)

Presentations and Participation: Students must be prepared and on time. Lateness or leaving early, along with being unprepared in general, will result in a lowered participation grade. Cell phones and beepers should be silenced during class time. Students are expected to ask and answer questions during class as well as participate in all classroom activities.

Assignments: There will be a total of four assignments, which will be posted on blackboard every Tuesday in the *Documents* folder. Assignments are to be written carefully and emailed to alaa.abdelhafez@stonybrook.edu at the **beginning** of the lecture on Tuesday of the following

week. No late homework assignments will be accepted. Each assignment is worth 10% of your grade. A rubric will be provided for each assignment on blackboard.

Quizzes: There will be few unannounced quizzes in class over the course of the semester, based on the homework assignment and the lecture for that week.

Teach Your Peers Project: Students will think of new ways that technology can be introduced to the math classroom and demonstrate its use to their peers. Students may have up to an hour for their demonstrations. Some ideas may include an app on an iphone that may facilitate math instruction, surface pro, programming with Python, Introduction to Maple, Stat IC/13, KH Coder, Google Classroom, VoiceThread, Kami, etc. Topic must be approved before presentation. A rubric will be provided on blackboard.

Final Project: Students will use the tools and technology learned in this course, to create a math lesson plan on a topic of their choice to students in high school. The lesson plan:
a) Is geared to a high school audience and focuses on technology. (*4 points*)
b) Must be written in Latex (will submit pdf and tex files). (*4 points*)
c) Follows the lesson plan format attached. *(4 points)*
d) Requires students to utilize a graphing calculator or Geogebra. *(4 points)*
e) Has a 10-15 minute summary using ActivePresenter for absent students. *(6 points)*
f) Will be posted on your Weebly website *(4 points)*
All students will give a 45 minute presentation on their lesson plan. *(4 points)*

The following is a tentative course outline and will be updated as needed.

Week 1: July 6 & 8: Latex
    Assignment # 1 due July 13

Week 2: July 13 & 15: GeoGebra + Desmos
    Assignment # 2 due July 20

Week 3: July 20 & 22: Nearpod, Flipgrid, and Gradescope
    Teach Your Peers Project due July 22
    Assignment # 3 due July 27

Week 4: July 27 & 29: Using Prezi, Powtoons, OneNote, Screencast-o-matic, Screencastify, ActivePresenter, and ExplainEverything
    Assignment # 4 due August 3

Week 5: August 3 & 5: Using Edpuzzle, Weebly, Excel, and Educational use of the world wide web
    Final project due August 10

Week 6: August 10 & 12: Catch-up and Presentations of Final Projects.

Student Accessibility Support Center Statement
If you have a physical, psychological, medical, or learning disability that may impact your course work, please contact the Student Accessibility Support Center, 128 ECC Building, (631) 632-6748, or via e-mail at: **sasc@stonybrook.edu**. They will determine with you what accommodations are necessary and appropriate. All information and documentation is confidential.

Academic Integrity Statement
Each student must pursue his or her academic goals honestly and be personally accountable for all submitted work. Representing another person's work as your own is always wrong. Faculty is required to report any suspected instances of academic dishonesty to the Academic Judiciary. Faculty in the Health Sciences Center (School of Health Technology & Management, Nursing, Social Welfare, Dental Medicine) and School of Medicine are required to follow their school-specific procedures. For more comprehensive information on academic integrity, including categories of academic dishonesty please refer to the academic judiciary website at http://www.stonybrook.edu/commcms/academic_integrity/index.html

Critical Incident Management
Stony Brook University expects students to respect the rights, privileges, and property of other people. Faculty are required to report to the Office of University Community Standards any disruptive behavior that interrupts their ability to teach, compromises the safety of the learning environment, or inhibits students' ability to learn. Faculty in the HSC Schools and the School of Medicine are required to follow their school-specific procedures. Further information about most academic matters can be found in the Undergraduate Bulletin, the Undergraduate Class Schedule, and the Faculty-Employee Handbook.

Lesson Plan Template

Learning Objective(s):

Standards:

Materials:

Warm Up:

Development/Procedure:

 Closure:

Assignment (Homework):