

Spring 2021 - STEM 4043/5023 Creativity and Innovation - T/TH - 9:30-10:45 - Tentative Schedule

*Please keep in mind that this is a tentative schedule. Please check the <http://www.uastem.com> website for updates.

Week 9

Tuesday, March 9 and Thursday, March 11

- Maker Tech Reading Review - High-Tech Remaking Literacy Challenge
- Amazeum Unfield-trip
- Assignment: Final Project Development – Identify the grade level, standards that will be integrated and the books you will use for your final project – (3-11)

Week 10

Tuesday, March 16 and Thursday, March 18

- Discussion about the Amazeum – Reading: An Innovative Setting for STEM Education
- Frugal Teacher Planning – Vibrobot Design Challenge
 - Complete engineering design journal for the VibroBOT Challenge
- Complete My Geometric Creature Project and 3D Printing

Week 11

Tuesday, March 23

- Vinyl Cutting – making stickers in a Makerspace
- Introduction to Magnetic Levitation Design Challenge
 - [Moving Along the Tracks Unit](#)
- Assignments: Final Project Development – Outline of the entire unit - books, standards, STEM/making examples, rough draft design briefs, assessment... (3-23)

March 25-26 – No Class – Spring Break

International Technology and Engineering Educators Conference – <https://www.iteea.org/Activities/Conference/ITEEA2021.aspx> - March 22-27, 2021

Week 12

Tuesday, March 30 and Thursday, April 1

- Magnetic Levitation Project Development
- MagLev Race – 4-1
- Introduction to Makey Makey
- Reading: Remaking Literacy - Chapter 6 – Guidance for Implementation – Complete reading review
- Assignment: Final Project Development – Complete the first 3 days of the unit including photographs and detailed descriptions (4-1)

April 2 – No Class – Spring Break

Week 13

Tuesday, April 6 and Thursday, April 8

- Makey Makey Design Challenge
- Creating a website to host your STEM Champion – Remaking Literacy Project
- Homework: Read Ch. 1 – Getting Started (pgs. 1-24) in the Learn to Program with Scratch book. You will need to set up a [Scratch account](#) and complete each of the activities. Then customize your game with your own Sprites and Costumes. Be prepared to demonstrate your 'pong' game to the class on Tuesday.
- Reading: Remaking Literacy - Epilogue/Appendices A-B – Complete reading review

Week 14

Tuesday, April 13 and Thursday, April 15

- Makey Makey Design Challenge Presentations
- The influence of theatre experiences in academic and social and emotional learning
- Assignment: Engineering a Play Design Challenge
- Reading: Engineering a Play – Complete reading review

Week 15

Tuesday, April 20 and Thursday, April 22

- Engineering a Play Design Challenge - Storyboard and script development
- Engineering a Play - Puppet Pal Prototype Development

Week 16

Tuesday, April 27 and Thursday, April 29

- Introduction to Robotics and Drones Programming Challenges

April 30 – Dead Day

Final Exam - Tuesday, May 4, 2021 – 8:00 – 10:00 – STEM Champion - Remaking Literacy Project Presentation

Final Project Due – Completed written Unit. including deliberation showing your understanding how your unit can be adapted to another grade level, and reflection.