

## Spring 2022 - STEM 4033 Introduction to STEM Education - T/TH – 4:35 – 5:50 - Tentative Schedule

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

### Week 7

#### **Tuesday, March 1**

- Literature-based Curriculum Peer Review and Ideation Presentations
- Major Assignment - Construction Blocks Curriculum Project
- Discuss working in teams on major projects
- Construction Block Challenge (in-class) - Keva Design Challenge Starters
- [KEVA Resources](#)
- Weekly Reading Assignment- [Using Block Play](#) and [Blocks as a Tool for Learning](#) and Reading Reflection

#### **Thursday, March 3**

- Reading Review
- Construction Block PP
- Construction Block Ideation/Guide

### Week 8

#### **Tuesday, March 8**

- Construction Block Ideation

#### **Thursday, March 10**

We will not officially meet for class, as I will be traveling to the International Technology and Engineering Educators Conference (ITEEA) Conference (March 9-12)

Friday, March 11 – 71<sup>st</sup> Annual University of Arkansas Regional Science and Engineering Fair – contact Shawn Bell - [seb010@uark.edu](mailto:seb010@uark.edu)

### Week 9

#### **Tuesday, March 15**

- Construction Block Ideation
- Computer Programming and Computational Thinking
  - Scratch and Pencil Code
- Weekly Reading Assignment – Computer Science in the Elementary Classroom – Preview the K-4 and 5-8 Arkansas Computer Science Standards - <https://dese.ade.arkansas.gov/Offices/ar-comp-sci-initiative/computer-science-standards-and-courses>
- Challenge (at-home) - Scratch Programming and Reflection

#### **Thursday, March 17**

- Construction Blocks Curriculum Project Presentations

### Week 10

**No classes - Spring Break – March 21-25**

### Week 11

#### **Tuesday, March 29**

- Technical Procedural Problem-Solving PP
- Major Assignment - Technical Procedural Curriculum
- Challenge (in-class) - Teacher Geek
- Weekly Reading Assignment – Writing a Technical Procedural STEM Problem

#### **Thursday, March 31**

- Technical Procedural Curriculum Development

### Week 12

#### **Tuesday, April 5**

- Introduction to Electricity - Building electrical circuits to demonstrate transfer of energy
- Major Assignment - Electricity Curriculum Project
- Challenge (in-class) – Paper Circuit
- Weekly Reading Assignment - Chapter 1: [http://www.allaboutcircuits.com/vol\\_1/index.html](http://www.allaboutcircuits.com/vol_1/index.html)

#### **Thursday, April 7**

- Electricity Curriculum Project Development

**Thursday, April 7 – Center-Gamble Elementary STEM Night (TBD)**

**Week 13**

**Tuesday, April 12**

- Electricity Curriculum Project Development

**Thursday, April 14**

- Electricity Curriculum Project Development

**Week 14**

**Tuesday, April 19**

- Electricity Curriculum Project Presentations
- Cooperative and Collaborative Learning PP
  - 21<sup>st</sup> Century Skills
- Weekly Reading Assignment 10 - Cooperative and Collaborative Learning Readings and Reflection

**Thursday, April 21**

- Cooperative and Collaborative in STEM Education
- Challenge (in-class) – Spy Game
- Challenge (in-class) – Green and White/Gutterball/Crazy Forts

**Week 15**

**Tuesday, April 26**

- Paper Engineering PP
- Challenge (at-home) – Pop-Up Card Quick Challenge

**Thursday, April 28**

- Paper Engineering (cont.)
- Challenge (in-class) - MakeDo

**Week 16**

**Tuesday, May 3**

- Automata – Final Project

**Thursday, May 5**

- Automata – Final Project

**Friday, May 6 – Dead Day**

**Final Exam**

**Thursday, May 12 – 3:00 – 5:00 – Final Project Due**