**Berea High STEM Project for Freshman Academy**

Intended Student Learning Outcomes:

* Recognize STEM career options in a variety of professions.
* Understand the STEM careers exist at various levels (entry level, 2 year degree, 4 year degree, etc.)
* Dispel myths about STEM careers.
* Understand that soft skills are as important, if not more so, than content knowledge. The workplace is a collaborative space, not a competitive space.

Overall ideas:

* All work will be done in teams, with assigned job responsibilities to mimic workplace expectations.
* Focus on 21st Century Skills: Critical Thinking, Communication, Collaboration, Creativity
* Ten modules with a flexible timeline so modules can be reordered if necessary due to volunteer availability.
* Project based modules will include information from volunteers/speakers about their workplace and how this task might look in their workplace.

**Tuesday, January 27, 2015 Module 1--STEM Careers in Manufacturing: Production**

Project based activity with a teamwork focus, product development, focus on importance of communication in a team environment to produce a quality product. Introduce attendance/tardiness time tracking as a self-monitoring idea to help us be on time and ready to work.

**Tuesday, February 10, 2015 Module 2--STEM Careers in Health Science**

Possible Focus Topics: Emergency Preparedness, Nutrition

Project based activity building on the skills in module 1 and adding brainstorming and collaboration as focus areas.

**Tuesday, February 24, 2015 Module 3--Focus on Collaboration**

Topic: The Importance of Group Norms

**Tuesday, March 10, 2015 Module 4—STEM Careers in Agriculture**

 Possible Topics: Water Flow, Hydroponics, Connect with Clemson Extension

Project based activity building on the skills in the previous three modules and adding critical thinking and creativity as focus areas.

**Tuesday, March 24, 2015 Module 5—Communicating about STEM: Digital Media**

 \*\*Try to do field trips before this module…focus on sharing what they learned on their field trip.

Students use digital media to communicate their learning about STEM to others.

**Tuesday, April 14, 2015 Module 6—Soft Skills**

Students analyze their own timeliness data collected over the course of the semester. Connect the importance of soft skills to the projects done in previous modules. \*\*\*Module is being developed by Bryant Nixon of Triangle Construction and Marjorie Dowd, possibly will use Junior Achievement curriculum as a resource here\*\*\*

**Tuesday, April 28, 2015 Module 7—Exploring Decisions about the Future**

 \*\*Wanda has created a draft of this module based on her work with Project Lead the Way.\*\*

**Tuesday, May 12, 2015 Module 8—Exploring Decisions about the Future**

\*\*Wanda has created a draft of this module based on her work with Project Lead the Way.\*\*

**Modules 9 and 10—Field Trips (University Center, Industry, Career Center, etc.)**

These two modules are white space to allow time for possible field trips within the semester, not necessarily at the end.

Thoughts—one field trip that matches each of the project based modules (manufacturing, agriculture, health science)—students choose based on interest??