

**Technological Advances in STEM**  
*Spring 2021*  
**Interdisciplinary Studies (INTDS) 103**  
Section # 58852

**Instructors:** Dr. Harinder Bawa  
Ms. Kylee Ford  
Dr. John Heathcote

**Class Times:** On-Campus Meeting: W, 12:00-12:50 pm, PHY-70  
*Lab:* 3 hours per week, arranged

**Course Communication Policy:**

Communication will be very important in this class as we work together to promote STEM through engaging activities. Announcements and assignments will be posted on the Canvas course site. You will need to regularly check the course Canvas site. In addition, the weekly class meeting will be very important for us to organize together.

Please contact any of the instructors through a Canvas message whenever you have a question.

**Textbook:** None

**Prerequisites:** None

**Grading:**

Group Projects	50%
Individual Assignment(s)	20%
Lab Hour Grade	20%
Weekly Class Participation Grade	10%

**Group Projects:**

As part of the class, students will work together to create new STEM activities and to record videos of these activities for use in virtual outreach. You will complete three group projects. These group projects will be a significant portion of your grade. The semester will be divided into three 6-week segments. Each group project will occur during one of these segments.

**Individual Project:**

During the semester, you will be complete an individual research project based upon the theme of this course: recent technological advances in STEM. There will be several assignments through the semester, culminating in a class presentation on your topic.

**Lab Hour Grade:**

The lab portion of this course is satisfied by the students' participation in outreach activities, promoting the STEM fields. Over the course of the term, you are expected to participate in a total of 51 hours of these activities (an average of 3 hours per week). Each week, you will be required to submit a list of your STEM activities and the amount of time that you spend on each one. Since most, if not all, of our outreach activities will be virtual this semester, you will be able to count the time that you work on these activities toward your lab hours. If we are able to safely visit schools to perform outreach activities, these activities will also be counted.

**Weekly Class Participation Grade:**

The weekly class meeting for this class is very important for both the organization of the ambassador activities and for your development as ambassadors. Because of this, you will receive a participation score for each week's class. In order to receive full credit, you need to show up to class on time, be prepared, and participate in the day's activities.

**Grading Scale:**

90 - 100%	A
80 - 89%	B
70 - 79%	C
60 - 69%	D
< 60%	F

**Attendance & Participation:** Your attendance and participation are important. Attendance will be taken at the beginning of each class period. **Since this class meets once per week, students missing (2) or more classes can be dropped for non-attendance.**

**If you are sick or if you have been exposed to the coronavirus, you should not attend the class.** Instead, please contact one of the instructors to let them know you will not attend. We will give you an alternate assignment to make up for your missed points.

## **Expectations of STEM Ambassadors for in-person and virtual outreach activities:**

**When you visit a school or act as a host, you are representing Reedley College.** Therefore, you are expected to dress appropriately and to behave professionally.

**Appropriate Apparel:** When acting as a STEM Ambassador, you are expected to dress appropriately. Typically, this will involve wearing the STEM shirt or another Reedley College shirt. Inappropriate clothing would include items such as low cut clothing, excessively short skirts or shorts, or low riding pants. Please be aware that one role of this class is to prepare you for professional work.

**Professional Behavior:** When acting as a STEM Ambassador, students are expected to avoid profane language and to avoid inappropriate conversations. Keep in mind that you are the face of Reedley College, and the way that you act reflects upon our school.

**\*Accommodations for students with disabilities:** If you have a verified need for an academic accommodation or materials in alternate media (i.e.: Braille, large print, electronic text, etc.) per the Americans with Disabilities Act (ADA) or Section 504 of the Rehabilitation Act, please contact me, or the **DSPS office - ext 3332** as soon as possible

\* Please see the Reedley College catalog for clarification of issues and additional guidelines.

<b>Add Date:</b>	Friday, January 29	Last day to add a course
<b>Drop Date:</b>	Friday, March 12	Last day to drop this course
<b>Holidays:</b>	Monday, January 18	Martin Luther King Jr. Day
	Friday, February 12-Monday, February 15	Presidents' Day Holidays
	Monday-Friday, March 29 – April 2	Spring Break

### **Course Description:**

This is a course on technological developments in STEM (Science, Technology, Engineering, and Math). Students will learn about new developments in STEM-related fields, such as renewable energy, medicine, transportation, communication, and basic science. Students will prepare presentations and activities on these developments for K-12 and college students.

### **Course Objectives:**

- A. Research recent technological and research advances in STEM.
- B. Prepare and lead outreach activities related to recent technological and research advances in STEM for K-12 students.
- C. Host on-campus events based upon emerging developments in STEM, such as the Green Summit and Introduce a Girl Scout to Engineering Day.