

## The GRACE Project

Enhancing STEM Education using GIS Technology

### **NEW Professional Development Course Offered by GRACE Project:**

#### **Using Geographic Information Systems (GIS) in Your School and Community**

*Today's students embrace technology outside the classroom. When used effectively, technology is an excellent tool to engage students inside the classroom as well.*

This Online Course is offered in **FOUR** progressive **MODULES** to acquire skills to incorporate GIS (Geographical Information System) instructional tools and educational experiences into classrooms. Teachers completing each module will receive a stipend and SCECH credits for meeting module expectations. Module work must be completed to qualify for enrolling in the next module.

#### **Module 1: Introduction to Geographic Information Systems for Teachers**

*Strategies for integrating GIS to support instruction, discussion, and extended learning on any topic will be presented. You will learn how to create and use GIS maps as a framework for understanding the geographic context of current and historical events and phenomena and exploring issues of interest to your local community. Many practical ideas for GIS activities that enhance student learning and critical thinking skills are shared.*

#### **Module 2: Preparing to Use GIS as a Tool in the Classroom with Story Maps**

*Story Maps let you present a series of maps via tabs, numbered bullets, or an expandable 'side accordion' control. In addition to maps, you can also include images, video and web content in your series to tell your story and engage your audience. Skills incorporated in this course will allow teachers to create a Story Map showing different data for the same location.*

#### **Module 3: Designing your School AGOO and Using Spatial Analysis Tools**

*This module introduces teachers and students to ArcGIS Online as they establish and use their own School AGOO. The ArcGIS Online software helps organizations increase the value of their GIS content by making it more broadly available, enabling individuals and teams to do their work better and faster.*

#### **Module 4: Preparing High School Students for GIS Internships**

*During this module, teachers will examine the skills needed by students as they prepare for Internships supported by the GRACE Project, a National Science Foundation initiative supporting the placement of GIS-prepared students in community agencies. They will also recruit prepared students for such placements.*

**Additional Course Information Continued on Reverse**



The GRACE project is funded by NSF Innovative Technology Experience for Students and Teachers Program (2014 – 2018, DRL-1433712) through the partnership between Eastern Michigan University (EMU), Michigan Virtual University (MVU), Michigan Mathematics and Science Centers Network (MMSCN) and Michigan Communities Association of Mapping Professionals (MiCAMP).

# Using Geographic Information Systems (GIS) in Your School and Community

## MODULE 1: *Introduction to Geographic Information Systems (GIS) for Teachers*

Wednesday, April 26, 2017, 7:30 p.m.	Start with Adobe Connect Session
Monday, May 1, 2017 – Sunday, May 7, 2017	Unit 1
Monday, May 8, 2017 – Sunday, May 14, 2017	Unit 2
Monday, May 15, 2017 – Sunday, May 21, 2017	Unit 3

### **Module 1 Expectations:**

- Submit a Completion Certificate for ***“Teaching with GIS: Introduction to Using GIS in the Classroom”***
- Create a learning artifact focused on ***“Careers in GIS”***
- Interview a GIS Professional

**Compensation: \$350    SCECHs: 12**

## MODULE 2: *Preparing to Use GIS as a Tool in the Classroom with Story Maps*

Monday, May 22, 2017 – Sunday, May 28, 2017	Unit 4
Monday, May 29, 2017 – Sunday, June 4, 2017	Unit 5

### **Module 2 Expectations:**

- Compare and contrast a GRACE Lesson and a GeoInquiry
- Create a Story Map

**Compensation: \$225    SCECHs: 8**

## MODULE 3: *Designing Your School AGOO and Using Spatial Analysis Tools*

Monday, June 5, 2017 – Sunday, June 11, 2017	Unit 6
Monday, June 12, 2017 – Sunday, June 18, 2017	Unit 7
Monday, June 19, 2017 – Sunday, June 25, 2017	Unit 8

### **Module 3 Expectations:**

- Build and enhance a School AGOO
- Submit a Completion Certificate for ***“Configuring and Managing an AGOO”***
- Design a GIS Investigation using the ***“You Can Do It”*** lesson planning template
- Submit a ***GIS Lesson Implementation Plan*** (includes two Explorer Lessons, one Story Map, and two Investigator Lessons using spatial analysis).

**Compensation: \$375    SCECHs: 13**

## MODULE 4: *Preparing High School Students for GIS Internships*

Monday, June 26, 2017 – Sunday, July 2, 2017	Unit 9
Wednesday, July 12, 2017, 7:30 p.m.	Summary Adobe Connect Session

### **Module 4 Expectation:**

- Design and submit an **Intern Recruiting and Mentoring Plan**

**Compensation: \$150    SCECHs: 5**

## **“Using Geographic Information Systems (GIS) in Your School and Community”**

**HOW TO REGISTER FOR MODULE 1: *Introduction to Geographic Information Systems (GIS) for Teachers***  
**ACCESS THIS [TUTORIAL](#) AND FOLLOW THE STEPS PROVIDED PRIOR TO Friday, April 21, 2017**

*As you near completion of Module 1, you will enroll in Module 2 and so on for Modules 3 and 4. If you are unable to continue, you will be able to start again where you left off at a future offering of the **MODULES**.*

**QUESTIONS???** Email Dr. Peggy Gaskill, GRACE PD, [pgaskill@mivu.org](mailto:pgaskill@mivu.org)