

GRACE PROJECT

GIS/T Resources & Applications for Career Education

(The GRACE video, <http://resourcecenters2015.videohall.com/posters/555>)



Opportunities for All Students

The GRACE project brings geospatial tools to classroom teachers and students. Geospatial technologies (GIS, GPS - global positioning system, and RS - remote sensing), and the analytical tools for using these systems wisely, now play a fundamental role in the provision of emergency services, transportation and urban planning, environmental hazard management,

resource exploitation, military operations, and the conduct of relief operations. In the future, geographical tools and techniques will be of vital importance to the effort to monitor, analyze, and confront the unprecedented changes that are unfolding on Earth's surface. Because the uses for GIS/T are so widespread, the market is growing almost 35 percent annually, with the commercial subsection expanding at the rate of 100 percent each year.

Support Three Levels of GIS/T Student Experiences

Teachers involved in the GRACE Project will learn how to support student learning about GIS/T through three levels of learning: Explorer, Investigator, and Intern. The professional development activities for teachers are tightly integrated with this progressive learning process so that adequate instructional and technical mentoring and support will be provided to encourage students to engage in GIS/T activities at each level.

The Explorer level introduces students to GIS/T through the ArcGIS Online Portal and through demonstrations developed with online GIS/T tools to build students' basic understanding of GIS/T as well as pique student curiosity.

The Investigator level leverages students' curiosity and interest and prepares them to work with GIS/T lesson modules that are designed to enhance science and engineering practices and align with the Next Generation Science Standards.

The Intern level provides students with professional GIS/T training and opportunities to gain work experiences in local organizations as Interns. Students apply the skills they've acquired through the first two phases, working within their communities to gain job skills and solve authentic problems.

TEACHER RESPONSIBILITIES: Complete an Explorer and an Investigator Online training course (five units in each of the courses) including scheduled web-based conversations with the GRACE Team and other GRACE Teachers. Demonstrate implementation of three (3) Explorer Lessons, five (5) Investigator Lessons and support Student Intern learning experiences within a two year period. Have access to current technologies to implement project lessons and support student learning.

TEACHER BENEFITS		
PHASE 1 PROFESSIONAL DEVELOPMENT	PHASE 2 PROFESSIONAL DEVELOPMENT	INTERN SUPPORT FOR YOU AND YOUR STUDENTS
Engage in a unit-based online course focused on the Explorer Lesson model and resources including scheduled web-based conversations with other GRACE Teachers. ¹	Engage in a unit-based online course focused on the Investigator Lesson model and resources including scheduled web-based conversations with other GRACE Teachers. ²	Support provided for you and your Student Interns from Geomentors .
Receive access to over 30 GIS-enabled Earth Science and Social Studies Explorer Lessons for potential classroom implementation.	Receive access to a FREE collection of student GIS/T projects and technical training courses for you or your students' use.	Support further training of your Intern Students with free available coursework to extend their GIS/T skills.
Earn up to 30 SCECHs for MDE Certification requirements based on completion of online course activities.*	Earn up to 30 SCECHs for MDE Certification requirements based on completion of online course activities.*	Access to GIS/T professionals from community and state-wide agencies.
Compensation of \$500 for course completion and lesson (3) implementation.	Compensation of \$600 for course completion and lesson (5) implementation.	Attend a one-day campus visit to a nearby university for you and your students.
*If you prefer, EMU graduate credit is also available, but existing tuition and costs will apply.		
¹ Course activities for Cohort #5 will begin on Thursday, October 6, 2016, at 7:30 p.m.		
² Course activities for Cohort #5 will begin on Thursday, February 9, 2017, at 7:30 p.m.		

To Register for the GRACE Project: www.nsfgrace.net

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