

Urban Environmental Excursions:

Field trips to connect urban geology students with the world around them

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Description

This activity describes one-day field trips for introductory Physical Geology or Environmental Geology courses that are designed around a central environmental theme (e.g., air quality, water quality, economic development, environmental justice, etc.) and visit urban locations (e.g., hazardous waste sites, solid and liquid waste disposal sites, brownfield redevelopment sites, industrial complexes, or sites with ongoing environmental restoration efforts). Students are provided with a guidebook containing one-page description of each stop on the trip, along with a list of questions to stimulate discussion among students and faculty. The guidebook gives students food for thought during the bus ride to each site, preparing them to formulate their own questions for our expert guides at each stop. The guidebook also serves as a tangible reminder of the trip for each student to take away and potentially discuss with other students or family members. Finally, the one-page summaries from the guidebook can also be used by course instructors as handouts or PowerPoint slides to tie field trip experiences into classroom instruction and discussion.

Context

This activity was designed for freshman-level introductory courses in Physical Geology and Environmental Geology. However, at Wayne State, we have opened participation to all undergraduate students majoring in Geology or Environmental Science. An unintended consequence of this decision is informal peer mentoring that results from interactions between majors and non-majors on the trip. The field trip is typically scheduled midway through the fall semester or three-fourths of the way through the winter semester to ensure that students have adequate preparation in terms of relevant course content and to accommodate weather considerations.

Goals of the Activity

The overall goal of the activity is to provide a field trip experience that will appeal to a large fraction of the introductory geology students and to enhance minority participation in the sciences.

- Students make observations, ask questions, and participate in discussions about the environmental, economic, and societal impacts of the locations they visit.
- Students make connections between concepts introduced in classroom or lab activities and the urban environment that surrounds them.
- Students experience, if only for one day, membership in a learning community where participants travel in groups and develop an expanded perspective through a shared a common experience.

Evaluation

Active participation in site tours and discussions can be used as an indication of successful student engagement in the activity. Alternatively, more formal evaluations can be conducted if written responses from the students to the field trip activities are assigned.

Supplemental Materials

Included in online submission:

1. Instructor's Notes with logistics and suggestions.
2. Example Field Trip Guidebook (Fall 2007 Energy and Air Quality Field Trip).