



**Northeastern University**  
**Department of Civil and Environmental Engineering**

**CIVU769**  
**Senior Design Project**

**Catalog Description:** *Students work in teams to design a civil engineering project that involves one or more sub-disciplines (environmental, geotechnical, structural, and transportation engineering). Design teams work with a faculty member and various engineering practitioners. Lectures cover cross-disciplinary aspects of project design such as site planning, economics and environmental aspects of project development, value engineering, aesthetics, and constructibility.*

**Prerequisites:** *Senior standing*

**Expected computer skills:** Skills acquired through the entire civil engineering curriculum.

**Text and Other Required Materials:** as needed

**Instructor:** Professor M. K. Yegian  
Office: 401 Snell Engineering  
Tel: 617-373-2448 (office)  
781-910-6680 (cell)  
e-mail: myegian@neu.edu

**Office hours:** To be determined. Students may also stop by in the Prof. Yegian's office anytime.

**Course schedule:** Refer to the schedule of deliverables in the class documents.

**TOPICS COVERED**

1. Major design project.
2. Proposal and report writing.
3. Oral presentations.
4. Design issues including constructibility, aesthetics, public safety, public participation, and impact mitigation.

**COURSE OBJECTIVES**

1. To give students experience in a major civil engineering design project, including:
  - a) Understanding the problem from a client's perspective.
  - b) Formulating, designing, and comparing alternatives.
  - c) Applying engineering standards and modern computing tools.
  - d) Incorporating considerations of economics, environmental impact, constructibility, ethics, health and safety, social impact, political context, and aesthetics.
2. To help students write effective proposals and technical reports.
3. To help students give effective oral presentations of technical material.
4. To help students learn to work in multidisciplinary teams.

**ASSIGNMENTS AND GRADING**

The project instructor will grade the project final report (60%) and project final presentation (40%). Input will be solicited from a Design Competition Review Board.

**POLICIES ON NEATNESS AND ACADEMIC HONESTY**

University policies on neatness and academic honesty (see attached sheet) will be adhered to.