

Developing and Refining Projects for Large Enrollment Courses

Rodica Neamtu
Assoc. Teaching Prof. CS

Sarah Wodin-Schwartz
Assoc. Teaching Prof. ME

Why Add Projects to Large Enrollment Courses?

- Increased Student Engagement through Smaller Groups
- Authentic Assessment
- Deeper Connection to Content
- Use Real-World Problems as a Challenge and Inspiration
- Connect Theory and Practice
- Building Community by Connecting Smaller Numbers of Students
- Expand and Enrich Feedback to Students through Peer Review

Open-Ended Versus Structured Projects

- Open-Ended - the students are given the outcome, but have freedom of the choice of how to get there
 - Based on student interest
 - More investment in the outcome
 - Increased sense of ownership
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- Structured - the students are given the methods and tools
 - More control for instructor on the choice of tools/concepts
 - Easier to use rubrics for feedback
 - More managed student choice
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Example Open-Ended Project: CS (graduate Database course, 14 weeks, average 55 students)

This open-ended project is geared towards the design, implementation and evaluation of a database management application for a customer. The customer could be an organization on campus or even a real company that you identify. Such system must be fully functional and meet the client's requirements. The focus should be on the design and full implementation of the database and its associated application. Data needs to be imported or scraped from a source, no “fake data” entered manually is accepted. This is a group project where the recommended size of a team is 3-5 students.

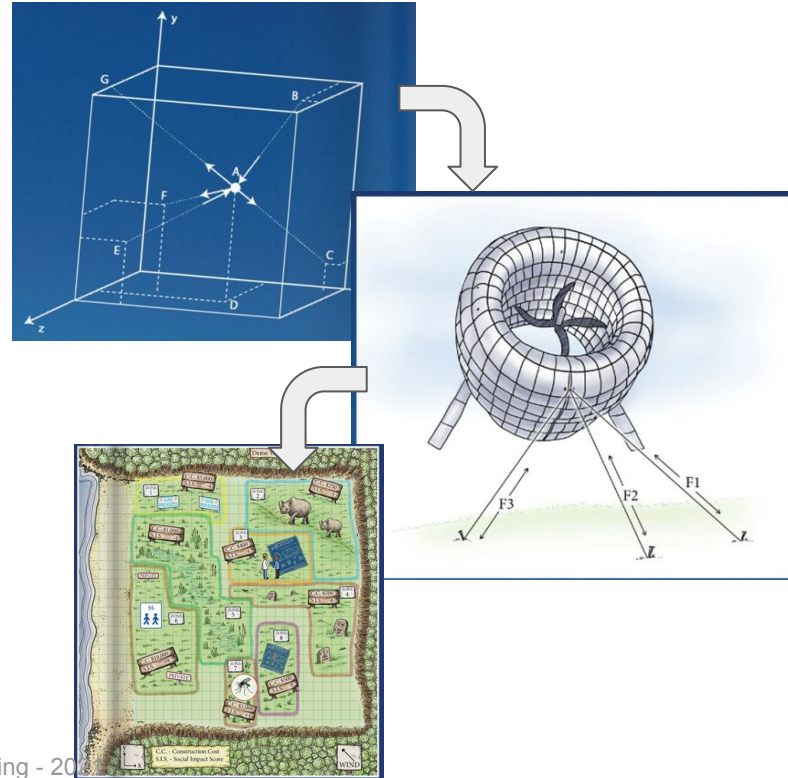
The milestones for the project include: (1) Project Intent; (2) Project Proposal; (3) Project Progress; (4) Final Presentations and Deliverables.

Example Structured Project: Mechanical Engineering (Introduction to Statics, Sophomore Level, 90 Students)

Students complete a particle equilibrium design for a floating wind turbine over a fictional remote community. Technical, social, and financial parameters are incorporated into the design process.

Project highlights student choice within structured scaffolding. Areas of student choice include:

- Cable locations
 - Technical effects
 - Social effects
- Balloon altitude
 - Technical effects
 - Social effects
- Proposed power use



Pre-Session Work - Please go to the pre-work document to complete the prompts.