Olin College
of Engineering

VISION:

Lead the transformation of undergraduate engineering learning experience to educate the next generation of innovators who want to better the world.

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MISSION:

Olin College prepares students to become exemplary engineering innovators who recognize needs, design solutions and engage in creative enterprises for the good of the world. Olin is dedicated to continual discovery and development of effective learning approaches and environments, and to co-developing educational transformation with collaborators around the globe.

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Transdisciplinary Integration

"Researchers work jointly using shared conceptual framework drawing together disciplinary-specific theories, concepts, and approaches to address common problem." (Rosenfield, 1992)

Rosenfield PL. The potential of transdisciplinary research for sustaining and extending linkages between the health and social sciences. Soc Sci Med 1992;35:1343–57.

Quantitative Engineering Analysis

"If you want to engineer effectively, you must be able to choose and use appropriate quantitative approaches for a given situation."

Credit: the QEA teams, including Rebecca Christianson, John Geddes, Siddhartan Govindasamy, Mark Somerville, Chris Lee, Paul Ruvolo, Samantha Michalka

Learning objectives include:

- Ability to select and appropriately apply quantitative tools for engineering analysis in context.
- Demonstration of understanding and ability to implement a variety of quantitative tools for analysis.
- Clear communication of technical process and results.
- Professionalism in terms of participation, teamwork, and completion of work on time.

Credit: the QEA teams, including Rebecca Christianson, John Geddes, Siddhartan Govindasamy, Mark Somerville, Chris Lee, Paul Ruvolo, Samantha Michalka

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Integrated Science

Chemistry, biology, materials science, AHS*

2 semesters, 12 credits (total)

Fulfills all foundational science and AHS requirements

*Arts, humanities, social sciences

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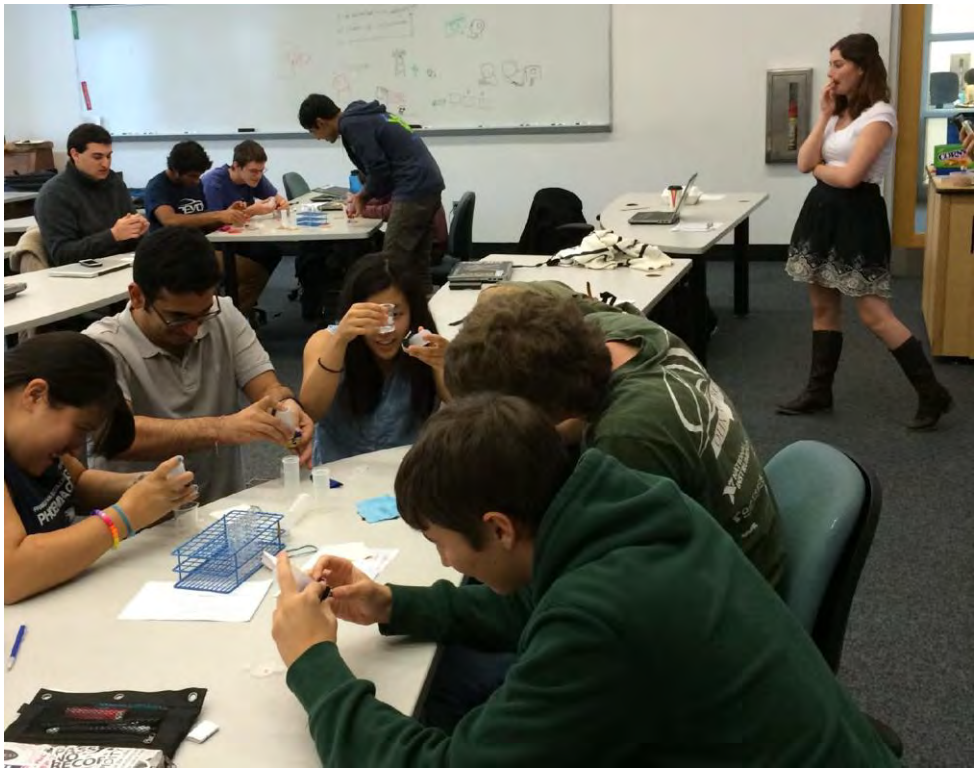
Integrated Science

Semester 1: lead project

Semester 2: TBD

Science fundamentals

+ context



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Integrated Learning Outcomes

Examples:

 Consider Context

 Prioritize Sustainability

 Communicate Effectively

 Collaborate Successfully

 Become Self-Directed Learners

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Consider Context

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Prioritize Sustainability

Communicate Effectively

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Collaborate Successfully

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Become Self-Directed Learners

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Assessment

Experimental grading

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Assessment

Constructive engagement

- Class attendance, promptness, and professional behavior/engagement/participation
- Completion of deliverables
- Asking for help when you need it
- Acceptance/addressing of feedback

Credit: the QEA teams, including Rebecca Christianson, John Geddes, Siddhartan Govindasamy, Mark Somerville, Chris Lee, Paul Ruvolo, Samantha Michalka

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Diversity of All Kinds

Racial and ethnic
LGBTQ
Socio-economic
Cultural
Neurodiversity
Diversity of thought
…

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Faculty

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Faculty

From committees to … working groups?

External engagement scaffolding?

Professional development?

Teaching load?

One curriculum?

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Technology and Pedagogy

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CORE INSTITUTIONAL VALUES:

Quality and Continuous Improvement

Student Learning and Student Development

Institutional Integrity and Community

Institutional Agility and Entrepreneurism

Stewardship and Service