

Interdisciplinary Teaching Practices: Opportunities & Challenges—Case Study

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Lafayette College



- Easton, Pennsylvania
- 1826
- Liberal Arts and Engineering
- Strictly undergraduate
- 2360 students
- 213 Faculty

The Plan



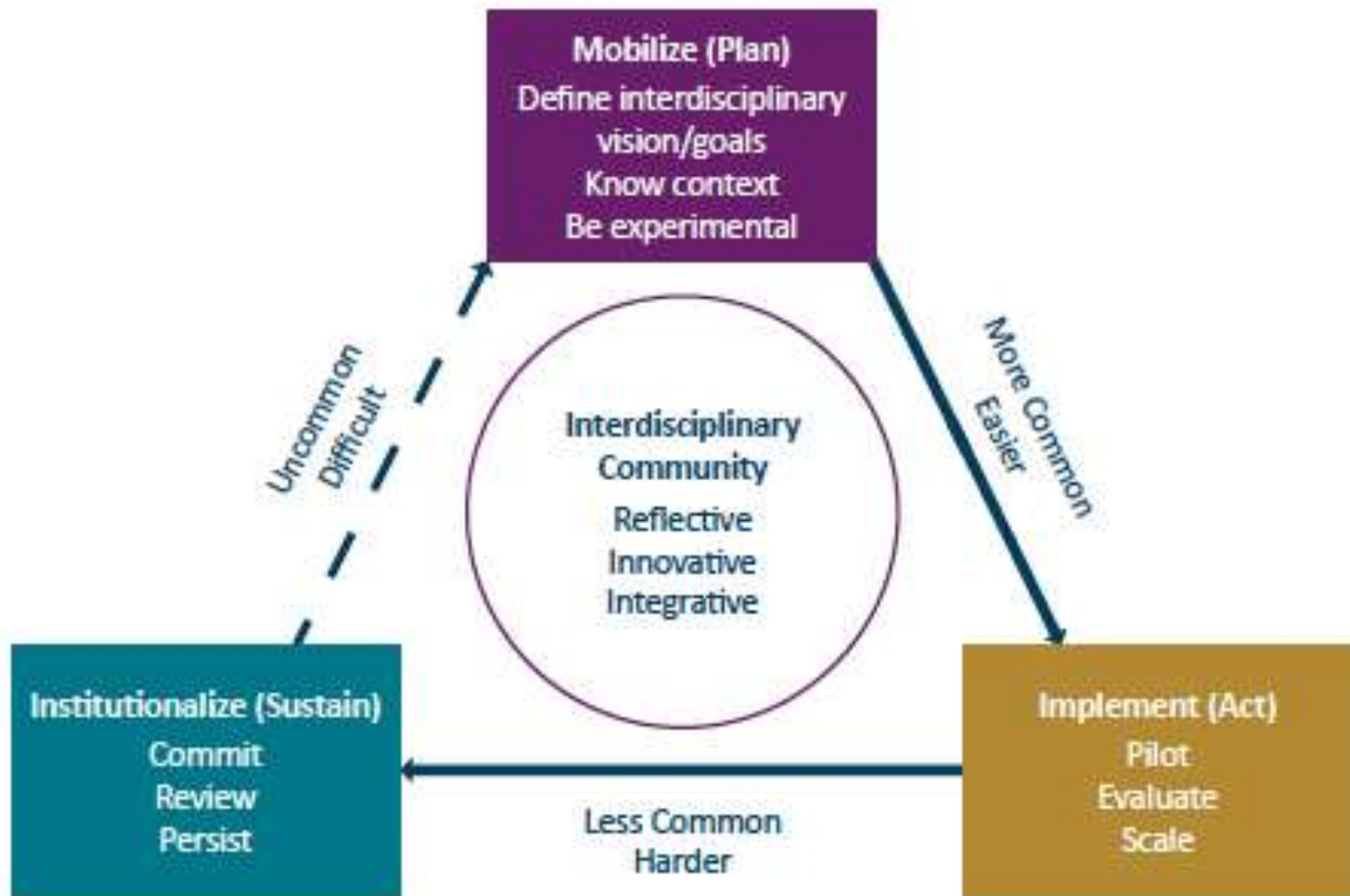
Strategic Plan

Led by President Weiss, the trustees and faculty of the College unanimously approved a strategic plan that calls for ambitious investment in the academic core of the institution, an enhanced commitment to student access and community diversity, and a renewed commitment to a strong and vital partnership with **Easton**

[Read more about the Strategic Plan](#) ➔

The Initiative

“This integrated, multidisciplinary [life sciences] program will take special advantage of our mix of A.B. and B.S. degree programs, including those in engineering and science. Scientists, engineers, humanists, and policy specialists will work together to support the development of a life sciences program characterized by breadth as well as depth.”



Mobilization - Culture



- Programs
- Pedagogies

Programs

Majors	Minors	Other
• Africana Studies • American Studies • Asian Studies • BioChemistry • Engineering Studies • Film & Media Studies • International Affairs • Math-Econ • Neuroscience • Policy Studies • Russian & East European Studies • Women & Gender Studies • Self-Designed Majors	• Architectural Studies • Biotech/Bioengr • Classical Civilization • Computational Methods • Health & Life Sciences • Health Care & Society • Jewish Studies • Latin American & Caribbean Studies • Medieval, Renaissance, & Early Modern Studies	• Economic Empowerment and Global Learning Project • Engineers Without Borders • EXCEL Research • Tech Clinic • Think Tanks

Pedagogies

- 1st Year Students
 - 30% are involved in CBL
 - 49% spend time with faculty on non-classroom activities
- Seniors
 - 44% have done one-on-one research with faculty
 - 51% have studied abroad
 - 72% volunteer or do community service
 - 78% have had internship, practicum, or similar experience

NATIONAL SURVEY OF STUDENT ENGAGEMENT



Results from NSSE can provide prospective students with insights into how they might learn and develop at a given

college.

[Learn more](#) ➤

Mobilization - Team



- Who
- What
- How

Who

Build a team

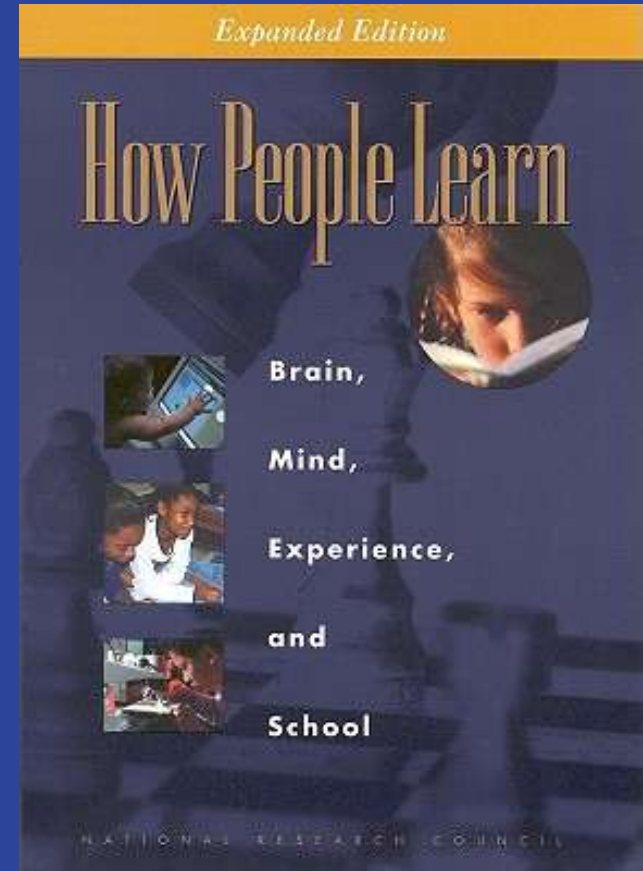
- Faculty
- Administrators
- Students



What

Build a vision: “We want to do it”

- Learning community
- Mission building retreat



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The mission of the Institute for Health and the Life Sciences is fourfold.

- 1 To provide an ***interdisciplinary education*** and research opportunities for students interested in health and the life sciences.
- 1 To provide resources that allow students to transcend traditional disciplinary boundaries to ***address problems*** related to health and the life sciences.
- 2 To build communication skills such that graduates have the ability and experience to be active participants in ***initiating and promoting societal change***.
- 3 To provide an intellectual and academic ***community*** for students interested in the health professions and life sciences.

How

Build confidence:
“We can do it”

- Inventory
- Faculty conversations
- Best practices



Implementation – Backward Design

At the completion of the program students will be able to...

- Understand the context of health and the life sciences
- Apply the scientific process and illustrate scientific literacy
- Describe the historical context of an interdisciplinary problem
- Use effective communication skills
- Work on interdisciplinary teams
- Recognize when an interdisciplinary approach to a problem is warranted
- Analyze ethical issues underlying an interdisciplinary problem
- Use analytical, computational, and assessment skills necessary to integrate information

Implementation - Alignment

Student Learning Outcome	For students in the Humanities or Social Sciences	For students in Natural Science or Engineering
Understand context of health and the life sciences; apply the scientific process and illustrate scientific literacy	▪ Biology 101, Biology 102 ▪ 1 course in Humanities or Social Sciences from approved list of courses related to health and the life sciences	▪ Biology 101 or Biology 102 ▪ 2 courses in Humanities or Social Sciences from approved list of courses related to health and the life sciences
Describe the historical context of an interdisciplinary problem; communication skills and work on interdisciplinary teams	▪ 1 interdisciplinary course with a Problem Based Learning approach from approved list	▪ 1 interdisciplinary course with a Problem Based Learning approach from approved list
Recognize and be able to explain when an interdisciplinary approach to a problem is warranted	▪ Interdisciplinary Seminar Series	▪ Interdisciplinary Seminar Series
Analyze ethical issues underlying an interdisciplinary problem; use analytical, computational, and assessment skills necessary to integrate information	▪ Capstone Course or Interdisciplinary Honors Thesis	▪ Capstone Course or Interdisciplinary Honors Thesis

Implementation - Assessment



- Annual retreat
- Rubric

Institutionalization - Structure

- Curriculum approval
- Budget
- Space



Institutionalization – Human Resources

- Administration support
- Workshops
- MOUs



Memorandums of Understanding (MOUs)

- Who is bound by the agreement
- Expectations and responsibilities of all parties
 - Appointment fractions
 - Teaching loads
 - Scholarship expectations
 - Commitments made by individuals, offices, programs, administrators
- P&T expectations and process for faculty member

Institutionalization - Politics

Ongoing...



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Institutionalization - Symbolic



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Conclusion/Summary



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