

BioEthics for BioEngineers

AHS Capstone Project

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Outline

- Why I chose this project
- Outcomes
- Quotes from the field
- Lessons

Why I chose this project

- Build on my background and interests
- Opportunity to conduct interviews
- Fill a need at Olin
- Make something that lasts
- Not just a paper

Outcomes

- BioEthics for BioEngineers course module
 - Background for professors
 - Pre-class reading assignments
 - Case studies on two topics
 - Discussion questions
 - Further resources
- Tested in two Olin BioE courses this fall

Methodology

- Readings in bioethics
- Interviews with bioengineers
- Finding case studies on key topics
- Developing tips / pedagogy
- Testing module
- Revisions

Quotes from the field

We strive to use as few animals as possible in the experiment, but occasionally something goes wrong. We thought we knew the appropriate dosing range of the drug we were testing, but the first round of animals all died of drug toxicity. Not only was it unnecessary deaths of animals, but it also set back our research in time and money.

– Corporate R&D employee

Quotes from the field

I wonder sometimes whether we're putting our money in the right place. We spend a lot of resources on developing technologies that will help people in the future. But those dollars and hours are not keeping people alive or improving their quality of life right now.

– Principal investigator in research lab

Lessons

- Bioethics affects all bioengineers
- Few go into field prepared for it
- Wealth of resources
 - Articles
 - Organizations / websites
 - IRBs / IACUCs
- Pedagogy is difficult

Questions?
