

Hope College Engineering, Computer Science, and Geology and Environmental Sciences Departments

Training of Ethics and Responsible Conduct of Research For Students Engaged in Research

Students engaged in research will participate in a series of seminars and discussions to directly address questions of ethics and to provide information that such questions must be considered in the practice of science and engineering. The department proposes to utilize a format that has been successful in our two most recent REU programs.

A faculty member from outside the department with the expertise and experience in ethical issues in science and technology will be invited to engage the students in a discussion of ethics and ethical behavior in scientific and engineering endeavors. A recent faculty member who has served in this capacity is David Stubbs. He is an assistant professor of ethics and theology at Western Theological Seminary. His background includes B.S. and M.S. degrees in engineering from Stanford University, and his experience outside academics includes working as a construction manager for Habitat for Humanity. He has facilitated a series of discussions on the topic of Ethical Traditions and Options. These have included the following topics:

Ethical traditions

Decisions and a decision method

Critiques of modern ethics

Overarching stories, virtues, practices, and my story

A typology of how scientists/engineers make ethical choices

The ethical landscape in one's own

The seminar format will accommodate substantial discussion by students and engineering faculty in small groups, guided by questions from one or more practical case studies.

The ethics component will be evaluated as an on-going part of the departmental assessment process. This will include an evaluation question in which students evaluate the ethics component on a numerical scale as well as with open-ended comments.