A Collaborative Effort to Build a Modular Course on GeoEthics

You are part of this collaborative effort. Today, right now, tell us about a problem, an opportunity, a resource, a technique, a case study, a way of viewing the world that we might use in this course. Join us, and let us keep in touch with you as our project develops.

Why a modular course?

We can be an educational resource to develop the tools to teach the application of ethics in the study of the Earth and its processes and products. Our goal is to create a modular course that can be used by educators with various teaching methods and environments. Each module can be used independently or in combination with others. The course can be tailored to the needs of different audiences, from undergraduate students to professionals.

ACollaborative Effort to Build a Modular Course on GeoEthics

The need to promote ethical practice in the geosciences has long been recognized. Geoscience-based companies face ethical challenges related to their operations, and students often encounter ethical dilemmas in their coursework. By developing a modular course, we aim to provide a framework for educators to integrate ethical considerations into their teaching.

What is the target group of students?

The target audience for these resources includes mid- to upper-level geoscience undergraduates and early-stage geoscience graduate students. However, the course modules can be adapted for broader audiences, including those in other disciplines that intersect with geoscience.

How can resources be made available?

We are developing a website where educators can access the modules and other resources. The website will be a living document, with resources being added and improved over time. Educators can use the modules as is or adapt them to fit their specific needs.

How can I contribute to this project?

You can contribute to this project in several ways. First, please consider becoming a member of the International Association for Promoting Geoethics (IAPG). IAPG has a strong community of interest in developing educational resources. Second, please communicate with any of the coauthors of this poster and let us know about your ideas and potential contributions.

What do we hope geoscience students will gain from a course on GeoEthics?

In addition to learning about the ethical challenges they will face in their careers, students will develop critical thinking skills, problem-solving abilities, and the ability to communicate effectively. They will also gain a deeper understanding of the role of ethics in scientific research and decision-making.

Who is involved in this project?

The coauthors are all members of the International Association for Promoting Geoethics (IAPG). IAPG is affiliated with the International Union of Geological Sciences and the American Geosciences Institute. The coauthors met as part of a workshop organized by Dave Mogk and others, with sponsorship from the National Science Foundation and participation from SERC (serc.carleton.edu). IAPG also has a community of interest in developing educational resources, including organizations that have their own codes of ethics.

The project is supported by the National Science Foundation and the American Geosciences Institute. The coauthors are working in collaboration with organizations such as the Geological Society of America, the Society for Economic Geology, and the American Geophysical Union, among others.

Please put your ideas on a Post-It Note and contribute to this poster! If you can, please also give us a legible email address so we can follow-up.

Suggested Modules

- Geoethical Case Studies
- Geoethical Exercises
- Geoethical Research
- Geoethical Writing
- Geoethical Practice

Geoethical Articles

- “Ethics in Geoscience Research” by David Mogk and others
- “Geoethics: A New Paradigm for Geoscience Education” by Anne Marie Ryan and others

Project Ideas

- Create a Geoethical Journal Club
- Develop a Geoethical Case Study Competition
- Host a Geoethical Ethics Bowl

Join Us!

Join the International Association for Promoting Geoethics (IAPG) at www.iapg.geoethics.org. We welcome contributions from educators, students, and professionals in the geosciences. Please share your ideas and experiences with us. We are looking for contributors to help build the course resources.

Other Ethical Problems and Issues

- Geoethical Dilemmas
- Geoethical Controversies
- Geoethical Case Studies

Text Suggestions!

- "The only ethical principle which has made science possible is that the truth shall be told all the time. If we do not penalize false statements made in error, we open up the way, don’t you see, for false statements by intention. And of course a false statement of fact, made deliberately, is the most serious crime a scientist can commit." - physicist Richard Feynman

- "We should not only be able to understand the ethical implications of our work, but also to communicate them to others. We should be able to explain why our actions are ethical, and how they benefit society." - geologist John B. Harbaugh

- "In some cases, we want to use a particular piece of information to support a particular idea. In other cases, we want to use the same information to support a different idea. In still other cases, we want to use the same information to support both ideas. The goal of this module is to help students understand how to use information in a way that is both ethical and effective." - geologist David Mogk

- "The goal of the GeoEthics course is to help students develop the skills they need to make ethical decisions in their professional and personal lives. We want to help them understand the ethical implications of their work, and develop strategies for dealing with ethical dilemmas." - geologist Anne Marie Ryan