It has become apparent that the practice of simply hoping students will learn about responsible research conduct and ethical behavior by observing exemplary behavior in their department is inadequate, and does not serve the needs of the student, the department, the geoscience community, or society as a whole.

after Stephanie Bird (2014)

The request:

Visit the web site,
CroninProjects.org/Ethics-AGU2017/
read through the materials,
and think about how *you* can help
us move this work forward.

Then share via the AGU Heads and Chairs Community



Sign over a door at Rudder Center, Texas A&M University. Photo by Vince Cronin.

Steps to improve awareness of geoethics in your department

How do novice geoscientists develop as ethical scientists and professionals? We who are privileged to be geoscience educators have a responsibility to be part of the answer to that question.

To paraphrase Stephanie Bird (2014), it has become apparent that the practice of simply hoping students will learn about responsible research conduct and ethical behavior by observing exemplary behavior in their department is inadequate and does not serve the needs of the student, the department, the geoscience community, or society as a whole.

I have a few suggestions, and a request. The request is that you read through the materials I have posted here, and think about how **you** can help us move this work forward.

Post your ideas, suggestions, and links to the geoethics resources developed by/for your department to the <u>AGU Heads and Chairs Community</u>. This should be a shared effort to facilitate the ethical development of our geoscience community.

Here are a few steps we can take in our departments that are likely to help improve awareness of geoethics.

Step 1: Begin and sustain a genuine, ongoing conversation about ethics and integrity in your department

Involve every member of your geoscience department in the conversation. Learn about geoethics together. Learn about geoethics from each other, and from the broader geoscience community.

Applied ethics education in your department is not a "one and done" matter, but rather is something that needs to be touched on early in every term/semester because there are new members joining your department all the time.

These conversations should explore the full range of topics that are relevant in the context of your department. Whatever else might be included

Step 1: Begin and sustain a genuine, ongoing conversation about ethics and integrity in your department.



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Step 2: Create a departmental web portal for ethics that is accessed through an obvious link on your department home page.

For example, AGU's ethics portal (ethics.agu.org) or the draft ethics portal for my department (CroninProjects.org/Draft-GeoEthics-Page.html)

Step 3: Use the ethics portal to expose department members to ethics resources from the broader science/ geoscience community

Step 4: Develop statements of ethical norms for your department

Start with aspirational statements.

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Address issues of academic/scientific integrity, harassment, bullying, and discrimination *directly*, *honestly*, and *unambiguously*.

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Try to keep your statements consistent with the norms of the broader geoscience community.

The goal is to capture and transmit "the sense of this community" about what it means to act with integrity, not to provide a means to justify or support judgmentalism.

Step 5: Provide every geoscience major (and grad student) with authoritative information about applied ethics in science or geoscience

For example, Sigma Xi's *Honor in Science* (Jackson, 2000) or the National Academies' *On Being a Scientist* (NAP, 2009)

Scientific Method in Brief (Gauch, 2012)

Step 6: Encourage each member of the department to develop their own personal commitment to integrity and geoethics.

For example, IAPG's "GeoEthical Promise" www.geoethics.org/geopromise

Facilitating the development of ethical geoscientists is our responsibility.