

## Moral Reasoning Beyond Professional Codes

2 Days (80 minutes each)

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Professional codes of ethics have to be revised as new challenges (often from new technologies) arise or internal inconsistencies within the code are discovered. To revise such codes well, professional engineers require moral literacy skills.

Students will be familiar with fundamental Ethics terminology.

Students will be able to reason about cases where professional ethics guidelines are ambiguous.

Students will practice their \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.

This module is designed to follow Dr. Champney's "Ethics Project" (included along with this module) in which students are split into groups and each group is given a different case study. The students are tasked with organizing a meeting, delegating responsibilities, and producing a report on the case study. The report consists of an analysis of the case study by way of applying the [National Society of Professional Engineer's Code of Ethics](#), thereby coming to a judgment on the case.

Following that assignment, students are more formally introduced to the Ethics topics in this module. This module provides a primer on ethical vocabulary to familiarize students with how to discuss these topics, an introduction to the moral literacy approach, an

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In applying the Code of Ethics to the given case studies, you had to navigate several important concepts in ethics. There are many different ways to approach Ethics as a discipline. Ethics courses, for instance, traditionally look at fundamental principles, ethical frameworks, and great books in the history of the topic. We will take a different approach here that focuses on instead on the ability to talk and think about the ethical aspects of a situation well. The first part of this is having terminology that allows us the topic (here we follow the approach laid out in von Kriegstein 2022).

Norms are conventions, beliefs, or facts about how people ought to act. In other words, norms are ideas or rules that we live by. The NSPE Code of Ethics you used for the previous assignment is a collection of norms that state how an engineer ought to act in their professional life. It defines what is and is not acceptable behavior for engineers. Whenever we decide how to act, we are making use of norms even if we do not realize it. Often, we make decisions based on implicit norms that we have learned or acquired without realizing that is what we are doing. In reflecting on ethical reasoning, we try to make those norms *explicit* so that we can ask questions like: are these appropriate norms for *this* situation? In what situations should they guide my action? In what situations might they fail or cause harm in? In applied ethics, we are mostly concerned with figuring out what the right norms are for a given situation.

Normative reasoning is fundamentally important to our lives because we are . Being a moral agent means that we make decisions that affect others (and ourselves) in ways that might benefit or harm them (or us). We are then responsible for those decisions, and, in particular, any harms that these decisions cause. (Moral) agency and (legal) liability are clearly linked. Both rely on the intuition that the agent could have done otherwise.

Norms essentially say what should or should not be done. In other words, they are guides to how we should act. There are four broad ways we can categorize actions according to norms. An action may be , meaning that given a certain circumstance, an action must be done. An action may be  if it may be done, or it is acceptable do but not required (all obligatory actions are permissible, but not vice versa). An  action is one that it is never okay to do. Finally, some actions go above and beyond the call of duty. These actions are called . Such actions are permissible and most people agree would be good to do, but it would be unreasonable to make it obligatory because of the burden it would place on or the sacrifice it may require from someone. For example, donating a kidney to someone in need falls in this category. When reflecting on our normative beliefs or writing codes of conduct, it is important to ask not just what is allowed or disallowed, but also what it is reasonable to demand of people. Making a rule that people must do supererogatory actions would fail this because while it would be nice if everyone always did what was supererogatory, it is unreasonable to demand it of them.

Sometimes a situation comes about where the norms that we use to guide our actions come into conflict. For example, a code of ethics may be found to be inconsistent or contradict itself in a new situation, and so the code must be revised to deal with that situation in the future. Sometimes new technology changes what people can do, and such codes must be updated to include rules of how to use that technology well.

In cases where the rules are unclear or where our norms suggest we should take multiple, conflicting actions, we must rely on our ability to interpret, imagine, and reason through the morally important aspects of the situation in question. In these cases, we will have to decide what to do ourselves, and we will be responsible for what we choose. Because of this, we need to be able to reason well about norms and morality in general in order to take an action that is well justified.

There are several different approaches to moral reasoning. We will look at one called Moral Literacy from the work of ethicist Nancy Tuana. This approach takes moral reasoning to be a certain way of "reading" situations to think about how we should act in

actions, give justifications for them, and weigh them relative to each other. Ideally, this leads to a decision about what you ought to do that is well-justified (i.e., a good moral argument). Here one should ask which of the actions imagined best addresses the normatively relevant features of the situation? Does that action violate any important principles (e.g., individual rights or human dignity)? Are more people benefitted or less harmed by this action than the other possible actions? Is this action something that anyone in the same or similar decision-making context can be reasonably expected to do?

Jamali, Dima. (2008) "A Stakeholder Approach to Corporate Social Responsibility: A Fresh Perspective into Theory and Practice." *J Bus Ethics* 82, 213–231. <https://doi.org/10.1007/s10551-007-9572-4>

von Kriegstein, Hasko. (2022). "The Moral Vocabulary Approach." *Teaching Philosophy*.  
<https://doi.org/10.5840/teachphil2022721175>

Stehr, P. (2022). "

These skills are especially useful in cases where our norms, professional codes, etc. come into conflict with each other or with themselves. Because norms (especially in the form of rules, obligations, and principles) are general, and the situations we find ourselves in are particular circumstances, there is always the possibility that we end up in a situation covered by multiple, inconsistent norms. This inconsistency means the norms we are trying to follow tell us to take at least two different courses of action when we can only take one. This means we have to decide between these possible actions, and the trade-offs between the goods and harms that come with them.

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You are a part of a team of engineers working with an international aid group in country C, a relatively poor, underdeveloped, and politically unstable country. Your team is working with the group on a project in which you are designing a hospital and its infrastructure (including the power grid, water treatment, waste management, and similar services). The community that will be served by this hospital currently does not have access to reliable medical treatment without difficult and long travel. In the middle of the project, a Traditionalist faction has secured power in C's government, and have instituted a ban on women working most jobs. For your project, being in compliance with the laws requires all women on the project be immediately removed from their positions. What are your team's options?

There are then at least three options.<sup>1</sup>

1: Your team can leave the country in protest. Leaving means the hospital's construction will lose much of its funding. It may still be built, but many corners will have to be cut, including services that can be offered and the environmental impact of the project.

2: Your team can continue to work without being in compliance (that is, the woman on the project continue to work). The project may still be completed, thereby serving the community, but the project is now vulnerable to legal action, which may include violent enforcement of the law.

3: Your team can continue the project and comply with the new law. This effectively means all women on the project lose their jobs. The hospital will be built, and the community will benefit greatly.

what NSPE canons, rules, and obligations are relevant to this situation?

Which items of the code support each option? Which are violated by an option?

\_\_\_\_\_ : *This list is not exhaustive, and students may come up with others.*

Option 1 is supported in the code of ethics by III.1.f.



In addition to cases where Professional Codes can be ambiguous, there are also cases where policies do not yet exist. Such cases most obviously arise around new technologies (for example, Generative AI, like ChatGPT), but they are also likely to come about due to legal or cultural changes as well. Here, it is not enough to have a good reason to justify one's own or one's group actions; new norms, usually in the form of policies, must be created.

In applied ethics, \_\_\_\_\_ means anyone who can affect or be affected by a decision. That is, anyone who can make or provide input for the decision, engage in an activity related to the decision, or be harmed or benefitted by the decision. Stakeholder theory is based on the idea that if someone will be affected by a decision<sup>4</sup> (if they have a stake in its outcome), then they deserve some say or a vote in the decision, or they at least must be considered by those who can make the decision. This is known as the "All-Affected Principle."<sup>5</sup> Often, the first step in making a good decision is identifying who the stakeholders are and what possible benefits or harms might result from the decision. There are at least two ways to think about stakeholder benefits and harms. The first approach focuses on stakeholders' material interests. Identifying stakeholders means identifying people who have a material interest in the outcome of a project, such that they may be positively or negatively affected by the project's potential outcomes. The second approach focuses on stakeholders' values and moral concerns. This approach takes into account their beliefs, especially those beliefs we call values (*what* they think is good or bad) and the moral intensity associated with those beliefs (*how* good or bad they think things are). Stakeholders are unlikely to share the same values or the same judgements about the moral intensity of their values.

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Begin this activity with an overview of what is a "stakeholder"

While this activity may be conducted with the whole class and having small groups of the class take each of the stakeholder roles, this is only recommended in very small class sizes (to ensure all students participate).

The roleplay activity can be played in groups of 5, or by splitting the class into 5 groups, one for each stakeholder. Each stakeholder has a belief, a value, and a starting position. These are revisable if given good reasons (which are either reasons that appeal to the stakeholder's specific value or more general practical concerns and values). While each stakeholder has their own unique



b. Value: You value minimizing the possibility of environmental harms.

have reached consensus and the Discussion Stage ends. Approval may come after either a change in the Policy Proposal or when a stakeholder is convinced to change or reorder their values.

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Stehr, P. (2022). "The Boundary Problem in Workplace Democracy: Who Constitutes the Corporate Demos?" *Political Theory*, 0(0). <https://doi.org/10.1177/00905917221131821>

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You will be divided into 5 roles / groups representing different stakeholders and your goal is to arrive at a common decision and justification for the case / situation given to your group for consideration.

Come to a policy decision and a justification for that policy that satisfies as many of the





Country C's parliament recently considered a bill that would require all chemical plants to meet higher reporting standards. These standards include the addition of a monitoring system that continuously tracks the emission of a list of potentially harmful chemicals. The current law only requires monitoring systems that provide an alert when a harmful chemical emission goes above a specified threshold. The technology for this system did not exist at the time of construction of most chemical plants in the country. The results of this monitoring system would be made publicly available on a government run website. The bill did not get the required votes to pass, with the reasons cited being that it would impose a high cost on industry and concerns over the public's ability to understand the data being made available. However, C's Professional Engineering Association is considering drafting a policy in favor of such monitoring systems and making the data from them available publicly. While this policy would not have the force of a nation-wide law, it would be binding on all certified professional engineers. In gathering input on whether to draft such a policy and what it should contain, the Association has a policy of following the All-Affected Principle. They have convened a roundtable of affected stakeholders.

prior to class, print and cut the following role positions into strips to be handed to each student individually.

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*Professional Engineers*

Belief: The current legal regulations are out of date given the new possibilities in monitoring technologies.

Value: You want whatever policy will be best for engineering as a profession (this means both the safety of engineers and that they maintain a good reputation).

Starting position: Your starting position is your choice.

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*Business Interests*

Belief: These chemical plants are businesses, and so increasing profit is the most fundamental concern.

Value: Anything that harms profit harms the chemical plants as a whole.

Starting position: You want either no policy to be drafted, or one that adds not additional costs beyond the minimum legal regulations.

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*Environmental Advocates*

Belief: These chemical plants are potentially dangerous to the environment, thereby harming everyone.

Value: You value minimizing the possibility of environmental harms.

Starting Position: You are in favor of the most strict monitoring policy that provides the most publicly available data, regardless of financial costs.

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*Plant Workers*

Belief: A strict policy may mean less jobs due to increased costs, but you are the first people at risk if anything goes wrong.

Value: You value a balance of safety and financial concerns.

Starting position: You favor a moderate policy that protects workers first.

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*Nearby Residents*

Belief: If something goes wrong with these plants, your family and home may be in danger.

Value: You value safety and openness on the part of chemical plants operations.

Starting position: You favor a strict policy, and especially one that includes making as much data as possible publicly available.

The world is always changing, especially in terms of technological advancement. As future professional engineers, you may one day have to respond to unprecedented situations like the case study above. You may also find yourself a member of a professional organization that sets codes of ethics. In these latter cases, you will not just have to make your own personal decision about how to act in a specific situation, but also make rules for how those in your profession ought to act in certain general types of situations.