

## 5 Professionalism

This discussion is with respect to the paper titled “ Contextualizing Professionalism in Capstone Projects Using the IDEALS Professional Responsibility Assessment”, *International Journal of Engineering Education* Vol. 28, No. 2, pp. 416–424, 2012

### 5.1 AREAS OF RESPONSIBILITY

Pick one of IEEE, ACM, or SE code of ethics. Add a column to Table 1 from the paper corresponding to the society-specific code of ethics selected above. State how it addresses each of the areas of seven professional responsibilities in the table. Briefly describe each entry added to the table in your own words. How does the IEEE, ACM, or SE code of ethics differ from the NSPE version for each area? We used IEEE.

Area	Description	Differences
Work competence	Perform work of high quality, integrity, timeliness, and professional competence.	NSPE puts an emphasis on avoiding deceptive acts and being honest while performing within a competence. IEEE standards allow you to still work on areas where qualifications are limited but only after full disclosure of pertinent limitations;
Financial responsibility	Deliver products and services of realizable value and at reasonable costs.	NSPE discusses being truthful and acting in good faith. IEEE puts emphasis on value and cost of delivering products and making sure the client is not being cheated
Communication honesty	Report work truthfully, without deception, and understandable to stakeholders.	NSPE has the same description.
Health, safety, and well-being	Minimize risks to safety, health, and well-being of stakeholders.	Minimize risks while keeping safety in mind. The well-being of engineers and stakeholders should both be valued.
Property ownership	Respect property, ideas, and information of clients and others.	NSPE has the same description

Sustainability	Protect the environment and natural resources locally and globally.	Use sustainable development to keep future generations in mind. IEEE discusses the use of natural resources and protecting the environment.
Social responsibility	Produce products and services that benefit society and communities.	Honor and reputation are also a part of social responsibility, according to the NSPE. IEEE discusses making sure the product has a benefit to society and is not a detriment.

## 5.2 PROJECT SPECIFIC PROFESSIONAL RESPONSIBILITY AREAS

For each of the professional responsibility areas in Table 1, discuss whether it applies in your project's professional context. Why yes or why not? How well is your team performing (High, Medium, Low, N/A) in each of the seven areas of professional responsibility, again in the context of your project. Justify.

**Work Competence:** Each member should be working in the areas that they are the most competent. On top of that, each member should be transparent in their activities (not doing anything to sabotage or set back the project). We are performing fairly well in this area, and should keep playing to each other's strengths and weaknesses.

**Financial Responsibility:** Currently, this area doesn't really apply to our project. We are in the very early stages of the project, so we are not developing for a large user base. Our primary goal is to get things the way our client wants them. We do not have to explicitly worry about expense vs. profit yet. We are performing pretty low in this category, but are making up for it in other areas.

**Communication Honesty:** Our stakeholders include a client that needs to be informed of where we are in the project, as well as a professor who has tasked the client with their project. So, this is another important area of professionalism for us. Our tasks should be communicated clearly, and we should not lie to our clients that are invested in making our project a reality. We are performing high in this category, we have weekly contact with our client.

**Health, Safety, and Well-Being:** Because our project is a software engineering solution, we really don't have much safety-wise to be concerned about. We may be concerned about the general security of our application, but at this point in time it makes more sense to allocate more resources to other professional areas. We are performing somewhat low in this area too, but are considering health and safety where we have to.

**Property Ownership:** The work we are doing is truly owned by our clients. So, this is another important area of professionalism for our project. We can be credited for creating the project, but in the end, the work we are doing will not be owned by us. We need to keep an emphasis on crediting the open-source software that we use. It will likely be passed on to other groups to improve our

model. We are performing highly in this area as we constantly check with the client to ensure the project looks the way it should.

Sustainability: While our work does have to do with tracking environmental data for prediction, our project doesn't focus on employing tactics to help the environment nor does it use many resources that may impact the environment. In this case the team is performing fairly low, but given the context of our project our attention is needed elsewhere.

Social responsibility: We will need to make sure our project has benefits for society and community, forecast danger and decrease the loss.

### 5.3 MOST APPLICABLE PROFESSIONAL RESPONSIBILITY AREA

Identify one area of professional responsibility that is both important to your project, and for which your team has demonstrated a moderate or high level of proficiency in the context of your project. Briefly describe what this responsibility means to your project, the ways in which your team has demonstrated the responsibility in the project, and specific impacts to the project that you have observed

Our team has demonstrated high proficiency in using properly licensed APIs, technology, and data as well as ensuring the best security practices are followed. These responsibilities are areas where we could potentially cut corners to save time, likely without the client knowing. It is through our professional integrity that we make sure these areas are properly dealt with and communicated honestly to our client.