| Area of responsibility | Definition | NSPE Canon | IEEE code of ethics | How are they different? |
| --- | --- | --- | --- | --- |
| Work Competence | Perform work of high quality, integrity, timeliness,  and professional competence | Perform services only in areas of their competence;  Avoid deceptive acts | To maintain and improve our technical competence and to undertake technological tasks for others if qualified by training or experience, or after full disclosure of pertinent limitations. | NSPE and IEEE are very similar in their wording, but NSPE mentions avoiding deceptive acts where IEEE does not. |
| Financial Responsibility | Deliver products and services of realizable value and  at reasonable costs | Act for each employer or client as faithful agents or  trustees | To reject bribery in all its forms | IEEE doesn’t mention the financial responsibility that, but instead, says that bribery should be avoided. |
| Communication Honesty | Report work truthfully, without deception, and  understandable to stakeholders | Issue public statements only in an objective and  truthful manner; Avoid deceptive acts | to be honest and realistic in  stating claims or estimates  based on available data. | IEEE includes making sure that  claims are realistic and are based on  available data while NSPE does not  mention those. |
| Health, Safety,  Well-Being | Minimize risks to safety, health, and well-being of  stakeholders | Hold paramount the safety, health, and welfare of the  public. | To accept responsibility in making decisions consistent with the safety, health, and welfare of the public | IEEE makes sure to include accepting responsibility in decisions as well as avoiding injuries to others, their property, reputation, or employment by false action. IEEE covers a larger amount of area. |
| Property Ownership | Respect property, ideas, and information of clients  and others. | Act for each employer or client as faithful agents or  trustees. | to avoid injuring others, their property, reputation, or employment by false or  malicious action | IEEE does not specifically include ideas or information under property, and they use the word “injure” instead of “respect” |
| Sustainability | Protect environment and natural resources locally  and globally | Adhere to principles of sustainable development to protect the environment for future generations | to accept responsibility in making decisions consistent with the safety, health,  and welfare of the public, and to disclose promptly factors that might endanger  the public or the environment | IEEE includes additional guidance for the welfare of not just the environment but also the public, and states that any harmful factors should be disclosed promptly |
| Social Responsibility | Produce products and services that benefit society  and communities | Conduct themselves honorably, responsibly,  ethically, and lawfully so as to enhance the honor,  reputation, and usefulness of the profession | To improve the understanding of technology; its appropriate application, and potential consequences | IEEE focuses on technology while NSPE is about overall conduct |

1. Work competence most definitely applies to our project because we are expected to create an enclosure for all of the UE that we are using to deploy 5G around Ames. Currently our group is modeling a design in CAD which will be 3D printed as a prototype. No one in our group has previously used CAD or done any 3D printing so members had to improve technical knowledge by learning how to use solid works as well as how to work the 3D printers.
2. The area of financial responsibility as defined by the IEEE code of ethics has a rare possibility of applying to our project. Our team has not received any bribes as of this moment, so the area of financial responsibility does not currently apply.
3. Communication honesty does apply to our project because we are responsible for having meetings with our mentor as well as a presentation at the end of the semester. It is important that we honestly provide information based on what we are currently working on. Our team is performing “High” on this because we're honest every week with our mentor on what we're working on.
4. Health, safety, and well being plays a small role in our project. One of our tasks is 3D printing, which we are taking all the necessary precautions such as wearing eye protection and becoming certified by taking a training course.
5. Property ownership is a large part of our project, as almost all of what we will be working with has been already purchased and is quite sensitive and expensive. As of right now, our team is performing “High” in this area by handling each of the products, both in hardware and in software, with care. In addition, we are informing ourselves about the software that we are working with so that damage due to ignorance or negligence does not happen in that aspect.
6. Sustainability doesn’t particularly have much to do with our project either. The way our project is set up we are using little to none in terms of natural resources. Also our deployment will in no way harm the environment.
7. Social responsibility does have a role in our project as we are making a product that could benefit society. Our team is performing “High” on social responsibility as we are identifying ways to best implement our products for the general public like minimizing the size of the hardware for public use.

## Most Applicable Professional Responsibility Area

Social responsibility is the most applicable professional responsibility to our project because we are developing a service that will benefit all community members in the area as well as research groups. Many people will be able to use this service to enhance their work or make their lives easier. This 5G infrastructure should be beneficial to everyone and will be able to be upgraded in the future when newer technology releases.