**Introduction to Computer Systems**

**Ethics Module**

By Joseph Bunyard & Jisub Lim

The aim of 15-213, Introduction to Computer Systems, is to improve programming skills through knowledge of CS basics. The learning objectives for this course are as follows:

* Recognize the relation between programs
* Interpret intention of programs and how to debug them
* Apply/ develop programming aids

The purpose of the 15-213 Ethics Module is to provide students with case studies, and an ethics vocabulary, necessary to think critically about difficult choices they may face in academia and industry. By the end of the course, students should demonstrate the ability to:

* Apply common ethical frameworks to case studies
* Consider the ethical context of programming from multiple perspectives
* Understand common ethical pitfalls in industry and academia

To realize these learning objectives, course coordinators are provided the following resources (please refer to case study slide deck):

* Six case studies covering a range of topics in computer systems
* Discussion questions for each case study
* A List of desired outcomes for each case study module
* A Google Form designed to generate class-wide statistics, and measure change throughout modules, for “what would you do” questions

Instructors should leverage the resources provided to implement modules in a way that accomplishes their desired outcomes. However, we suggest the following primary flow for a class that features an ethics module.

* Pre-Class: students read the case study to be discussed on Canvas and answer preliminary “what would you do” questions on a discussion board (≈20 minutes)
* Class: following the day’s planned lecture, professor briefly reviews the case study, and students discuss it with their neighbors (15 minutes)
* Post-Discussion: professor emphasizes key takeaways of case study (5 minutes)
* Post-Class: students complete a Google Form (5 minutes)

This format was selected based on instructor feedback, which stated that ethics modules should be quick addendums to existing lectures and students should be graded on participation. This format is optimized for the large class size typical of 15-213.