A MODULE FOR TEACHING THE ROLE OF ETHICS IN SAFE PRACTICE

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Abstract: *The first duty of a professional engineer, emphasized in every professional act and code of ethics in Canada, is to protect the public. This duty extends from the design of structures, devices and processes that are safe and do not fail, to ensuring that structures, devices and processes are used in a safe manner. Engineers therefore have a duty to conduct their practice in an ethical manner, practicing only within their scope of competency, and taking personal responsibility for their works. Because the teaching of engineering is generally considered the practice of engineering, engineering educators have an ethical responsibility to ensure that students graduate with an understanding of what constitutes “ethical practice”. This presentation will describe a training module that allows students to explore ethically challenging situations through examination of case studies. The module is based on the Association of Professional Engineers and Geoscientists of Manitoba (APEGM) Code of Ethics and the cases that are presented are based on actual disciplinary cases.*

Keywords: *Health and Safety; Training Modules; Ethics*

1. INTRODUCTION

Engineers are compelled by law to “protect the public”. Variations of this phrase are the first thing mentioned in all of the Professional Engineering Acts in Canada [1]. Similarly, the various codes of ethics proposed by the professional engineering associations across Canada require members to conduct their work in an “ethical manner”. Furthermore, the Canadian Engineering Accreditation Board [2] requires as one of its outcomes that students learn about ethics and ethical practice. However, unlike mathematics and science topics, ethics is a concept which means different things to different people. Regardless of these complexities, it is the task of the engineering educators to ensure that when they graduate, engineering students are prepared to pursue their careers in an ethical manner.

The module that will be described in the presentation is based on the Code of Ethics published by APEGM. It provides a systematic consideration of this code as it applies to ensuring that the engineer practices in a safe manner. The module presents a number of case studies that are based on actual disciplinary cases that have been brought forward to APEGM. In each case the user is provided the opportunity to evaluate the case and come to a conclusion as to the guilty and possible penalty for the “accused”. The findings of the Board of Investigation are then reviewed.

It is recognized that it is impossible to “train” students to act in a perfectly ethical manner throughout their career. All of us continue to face ethical challenges throughout our careers and our lives. However, by exposing students to actual cases where un-ethical practices have impacted public safety, engineering students can begin to develop skills to face ethical issues that will inevitably arise throughout their careers.

REFERENCES

- [1] <http://www.apegm.mb.ca/ActBylawsCode.html>
- [2] 2013 Accreditation Criteria and Procedures, Canadian Engineering Accreditation Board, Engineers Canada, Ottawa, Ontario, 2013.

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