



TEXAS TECH UNIVERSITY
**Murdough Center for
Engineering Professionalism**

**Information Regarding Continuing Professional Competency Courses
in Professional Ethics**

- ◆ Links to the movies are provided on the course website
- ◆ A score of 70% is required to receive a given certificate

Course Contents and Costs

PDH 1, 3

A study of Artificial Intelligence (AI) and Generated Artificial Intelligence (GAI) related to professional practice.

Components

- Multiple-choice assessment based on various articles and information regarding ethical issues and current examples of ethical applications of AI/GAI to professional practice.
 - Completion of this component awards one (1) Professional Development Hour.
- Written paper that addresses an issue or problem with using AI/GAI in professional practice.
 - Completion of the case study and assessment awards three (3) Professional Development Hours.

Cost

- ◆ Assessment only: **\$50**
 - ◆ Assessment and Case Study: **\$150**
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PDH-2

A study of professional codes of ethics and issues in the movie *Gilbane Gold*

Components

- Complete the Code of Ethics assessment
- Watch *Gilbane Gold*
Develop *Gilbane Gold* Memorandum
Assume you have been hired as a professional engineering consultant by the City of Gilbane. Develop a memorandum providing an analysis and recommendation on courses of action the City Council can take regarding the issues in the video.

Cost

- ◆ **\$100**
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PDH-3

A study of professional codes of ethics and issues in the movies *Gilbane Gold* and *Incident at Morales*

Components

- Complete the Code of Ethics assessment
- Watch *Gilbane Gold*
Develop the *Gilbane Gold* Memorandum
- Watch *Incident at Morales*
Complete the *Incident at Morales* assessment

Cost

- ◆ **\$150**
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PDH-5

A study of professional codes of ethics and issues in the movies *Gilbane Gold*, *Incident at Morales* and *Henry's Daughters*

Components

- Complete the Code of Ethics assessment
- Watch *Gilbane Gold*
Develop the *Gilbane Gold* Memorandum
- Watch *Incident at Morales*
Complete the *Incident at Morales* assessment
Write a short essay discussing the ethical issues in the story.
- Watch *Henry's Daughters*
Complete the *Henry's Daughters* assessment

Cost

◆ **\$150**

PDH-7

A study of professional codes of ethics and issues in the movies *Gilbane Gold*, *Incident at Morales* and *Henry's Daughters*

Components

- Complete the Code of Ethics assessment
- Watch *Gilbane Gold*
Develop the *Gilbane Gold* Memorandum
- Watch *Incident at Morales*
Complete the *Incident at Morales* assessment
Write a short essay discussing the ethical issues in the story.
Develop a short essay discussing the issues from perspective of 2 characters and company authority
- Watch *Henry's Daughters*
Complete the *Henry's Daughters* assessment

Cost

◆ **\$350**

PDH-10

A study of professional codes of ethics and issues in the movies *Gilbane Gold*, *Incident at Morales*, *Henry's Daughters* and *Ethicana*

Components

- Complete the Code of Ethics assessment
- Watch *Gilbane Gold*
Develop *Gilbane Gold* Memorandum
- Watch *Incident at Morales*
Complete the *Incident at Morales* assessment
Write a short essay discussing the ethical issues in the story.
Develop a short essay discussing the issues from perspective of 2 characters and company authority
- Watch *Henry's Daughters*
Complete the *Henry's Daughters* assessment
- Watch *Ethicana*
Complete the *Ethicana* assessment

Cost

◆ **500**

Goals and Objectives

The goal is to promote understanding, communication, insight, and problem-solving abilities related to ethics in the engineering profession.

Overall objectives are to develop the ability to:

1. Differentiate between personal ethics, legally required ethics and ethics based on the engineer's responsibility to protect the health, safety, and welfare of the public
2. Formulate solutions to ethical problems by
 - a. recognizing the consequences of actions taken
 - b. analyzing what is expected
 - c. knowing what's right and doing what's right
 - d. comprehending, comparing, evaluating, and acting on these solutions

Evaluation and Completion

Evaluation will be based on depth of thought, clarity, and completeness.

Upon successfully completing the course, the participant will receive a Certificate of Completion verifying the professional development hours earned.

Instructor

William M. Marcy, PhD, PE

Dr. Marcy earned a Bachelor of Science in Electrical Engineering in 1964. He earned a Master of Science in Electrical Engineering in 1966. He received the first ever Interdisciplinary Ph.D. in 1972 from Texas Tech.

His experience with the U.S Government includes serving as an intelligence officer with the Central Intelligence Agency in Washington, D.C. from 1966 to 1975, eventually becoming the Chief of the Engineering and Planning Branch, Office of Security, Directorate for Administration. Dr. Marcy served as Deputy Director of the CIA Interagency Training Center, which provided technical security training for all U.S. Government agencies, with security responsibilities for U.S. Government facilities outside the United States.

From 1975 to 1980 he served as Associate Professor of Industrial Engineering at Texas Tech. During the oil boom of the late 1970's he left Texas Tech to join Armco National Supply Company in Houston, Texas as special assistant to the president for business planning and development. Following the oil bust of the early 1980's he left NSC to form a startup company, Information Planning Corporation in Dallas, Texas.

In 1983 Dr. Marcy returned to Texas Tech as Associate Dean of Engineering and Associate Professor of Industrial Engineering being promoted to full professor in 1986. In 1987, he was selected as the director and later chair of the Computer Science Program as it became an independent department in the College of Engineering. He served in that position until 1995 when he became the Senior Associate Dean of Engineering. During the period 1984 to 1997, he also served as an outside director of FSI International Corporation, a public corporation manufacturing semiconductor-processing equipment in Chaska, MN. In 2002 Dr. Marcy became an outside director of Concorde Wealth Management Corporation in Dallas, Texas. He continues to serve as the Chair of the Board of that corporation. In 1998 he became the acting Dean of Engineering then Interim Dean of Engineering. He was selected as the permanent Dean of Engineering in April of 1998 and served in that position until being selected as Provost in June of 2002.

Dr. Marcy is a licensed professional engineer in the State of Texas (84408). Bill is one of the first professional engineers in the US to add the discipline of software engineering to his license. Bill has more than 45 years of experience as a management consultant, engineering educator, software developer and licensed professional engineer. After retiring as Provost of Texas Tech in 2008 he returned part time as Professor and Director of the Murdough Center for Engineering Professionalism in the Whitacre College of Engineering. He teaches engineering ethics on-line at both the undergraduate and graduate level. More than 6,500 engineering students have completed his engineering ethics courses.

His research interests include organized problem solving, information systems, real-time systems, robotics, artificial intelligence, high-reliability software and computer security. He has published more than 50 refereed journal articles