COURSE NUMBER & TITLE: ENGR 1110: Engineering Ethics
CREDITS: 3 (3 Lec / 0 Lab)
PREREQUISITES: None

CATALOG DESCRIPTION:
Engineering Ethics covers the philosophical basis for ethical decision-making in the practice of engineering. Topics include professional responsibilities and the social impacts as they relate to engineering teamwork skills, design and engineering careers, case studies, and code of conduct for engineers.

OUTLINE OF MAJOR CONTENT AREAS:
1. Major theories of Western ethics
2. Factors that influence ethical decision-making
3. How civic concepts are encoded in a professional code of ethics
4. Focus on the social and global impact of contemporary issues in engineering
5. Engineers’ responsibility to the health, safety and welfare of the public
6. Professional codes of conduct in engineering
7. Case study analysis of engineering ethics related to design failure
8. Components of teamwork interactions in the engineering design process
9. Government oversight and regulation in the engineering community.

COURSE GOALS/OBJECTIVES/OUTCOMES:
1. Students will demonstrate an understanding of major ethical theories and sources of ethics as they relate to engineering practice.
2. Students will demonstrate an understanding of the professional code of conduct within engineering.
3. Students will describe the social and global impact of engineering decisions.
4. Students will identify the engineers’ professional responsibility to promote the health, safety, and welfare of the public.
5. Students will explain engineering design failures involving engineering ethics parameters.
6. Students will present group findings in case studies of engineering ethics in both oral and written communication.
7. Students will describe the role of professional organizations in supporting the ethical practice of engineering.
8. Students will explain the responsibility of the engineering profession and its impact on the environment.
9. Students will describe appropriate government involvement in engineering designs.
10. Students will perform in a team environment.

MNTC GOALS AND COMPETENCIES MET:
N/A

HCC COMPETENCIES MET:
Communicating Clearly & Effectively
Social/Civic Responsibility

STUDENT CONTRIBUTIONS:
The student will attend class regularly, participate in class discussion, complete assignments, and design projects. The student will spend sufficient time to complete all assignments.

STUDENT ASSESSMENT SHALL TAKE PLACE USING INSTRUMENTS SELECTED/DEVELOPED BY THE COURSE INSTRUCTOR.

ADDITIONAL INFORMATION:
None

Curriculum Committee Approval Date: February 12, 2018

AASC APPROVAL DATE: February 21, 2018
REVIEW DATE: February 2023