Diverse Expressions...
of the Engineer’s Obligation for Safety

1. **Vocational**... the engineer as employee
2. **Educational**... the engineer as teacher
3. **Technical**... the engineer as specialist
4. **Professional**... the engineer’s practice
5. **Legal**... the engineer’s privilege
VOCAUTIONAL

Engineers are Employees, too...

FACULTY HANDBOOK
2014-2015

VOCATIONAL

Engineers are Employees, too...

FACULTY HANDBOOK
2014-2015
OP 60.01: University Health and Safety Program

The goal of the Health and Safety Program is to develop positive attitudes regarding safety among all members of the university community. It is essential that deans, directors, department heads, faculty, and staff supervisors take an active part in initiating preventive measures to control hazards associated with activities under their direction. Safety must be an integral part of all programs at Texas Tech University.

Earth Reinforcement Pullout Testing
MSE Pullout Testing Project
Research Expectations
Theme 1. Priorities

1. Safety.
2. Validity.
3. Efficiency.

FIELD IMPLEMENTATION: ULTRA HIGH PRESSURE WATER CUTTING
STORM RESPONSE TEAM
Snow & Ice Chemicals for Texas Roads

PHASE 1: Monticello, Arkansas
Texas Cone Penetration Reliability Study
Research Team
Load Rating Pre-1980 Reinforced Concrete Box Culverts

ETERNAL VIGILANCE IS THE PRICE OF SAFETY
EDUCATIONAL

Safety Education...
Safety Educators

Safety Courses at TTU

- **Industrial Engineering: IE 4363 - Work and Product Safety Engineering**... Principles of design for work and product safety, accident theory, loss prevention, accident cost analysis, standards and regulations, system safety, hazards recognition, evaluation and control, product safety, and liability.

- **Industrial Engineering: IE 5306 - Safety Engineering**... Loss prevention principles, practice, and regulations; accident factors, models, costs, and analysis; systems safety; product safety; safety and health related workplace hazards.
Safety Courses at TTU, cont’d.

- **Human Resource Development: HRDV 3313 - Organizational Safety and Wellness**... Prepares students to analyze concerns related to workplace safety and wellness, develop and evaluate workplace safety and wellness programs, and follow governmental safety regulations.

- **Food Science: FDSC 3309 - Food Safety**... Food safety and sanitation in food manufacturing and/or processing. Topics include FDA and USDA regulations, HACCP principles, and good manufacturing practices.

Safety Courses at TTU, cont’d.

- **Construction Engineering: CONE 4300 - Construction Safety**... Management of safety and health programs for the construction company, including OSHA regulatory requirements. Students earn a 30-hour OSHA card upon successful completion of OSHA requirements.
American Association of Safety Engineers

ASSE: Dedicated to protecting people, property and the environment

ASSE members create safer work environments by preventing workplace fatalities, injuries and illnesses. Safer organizations enjoy increased productivity, higher employee satisfaction and a better reputation, while recording less lost time, and lower workers’ compensation and healthcare costs. Members possess the necessary competencies to manage a wide range of risks.
PROFESSIONAL
National Society of Professional Engineers
Fundamental Canon 1.
NSPE Code of Ethics for Engineers

Engineers, in the fulfillment of their professional duties, shall hold paramount the safety, health, and welfare of the public.
LAB SAFETY AND LEGAL RAMIFICATIONS

LEGAL
Texas Board of Professional Engineers

THE STATE OF TEXAS
TEXAS ENGINEERING PRACTICE ACT
AND RULES CONCERNING
THE PRACTICE OF ENGINEERING
AND
PROFESSIONAL ENGINEERING LICENSURE
§137.55 Engineers Shall Protect the Public
Chapter 137, Subchapter C

Engineers shall be entrusted to protect the health, safety, property, and welfare of the public in the practice of their profession. The public as used in this section and other rules is defined as any individual(s), client(s), business or public entities, or any member of the general population whose normal course of life might reasonably include an interaction of any sort with the engineering work of the license holder.

THANK YOU!

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