

Tennessee Technological University
Department of Civil & Environmental Engineering
CEE 5850/4850 – Forensic Engineering

2017 Catalog Data:	CEE 5850 Lec. 3. Cr. 3. Forensic case studies related to civil engineering.
Required Textbook:	Delatte, N. <i>Beyond Failure: Forensic Case Studies for Civil Engineers</i> . ASCE Press, 2009 Dennies, D.P. <i>How to Organize and Run a Failure Investigation</i> . ASM International, 2005.
Faculty Coordinator:	Dr. Ben Mohr
Prerequisites:	CEE 4310 or CEE 4320
Goal:	To provide practical insight into structural engineering, geotechnical engineering, and civil engineering materials through the examination of failures.

Course learning objectives:

1. To provide practical insight into structural engineering, geotechnical engineering, and civil engineering materials through the examination of failures.
2. To learn better engineering practices through the study of failures
3. To improve critical assessment and written technical communication skills through state-of-the-art critical reviews.

Major Topics Covered:

1. Major Steps in failure investigation
2. Structural engineering failures
3. Geotechnical engineering failures
4. Materials failures
5. Water resources/environmental engineering failures

Measurable outcomes:

1. I have an understanding of the role of communication in engineering design and construction.
2. I have an understanding of the role of ethics in engineering design and construction.
3. I have an understanding of the role of redundancy in engineering design and construction.
4. I have an understanding of the critical nature of connections in engineering failures.
5. I have an understanding of the process of forensic investigation.