Assignment:

- Form a team of four: 2 and 2. Socialize, but do not fraternize.
- Select a case study from a chapter of Inviting Disaster other than chapters 2, 3, or 5. This could be one of the detailed case studies, or an example that is briefly mentioned, or one from the appendix.
- Produce a poster (by the deadline of Tuesday, November 03) that teaches four things to your audience:
  - Convey the main points of the case study’s narrative: what happened, in what order, what were the key turning points. Assume no prior knowledge. Highlight key issues.
  - Analyze the lessons learned from the study, using ethics, paradigms, technological systems, the social shaping of technology, artifacts have politics, or other frameworks.
  - Break down the technical aspects of the case, including any materials science and engineering design-related reasons for the failure. Identify the materials stressors (e.g., mechanical, chemical, electrochemical, thermal, electrical influences), and explore whether these stressors are direct or indirect causes of the failure. Analyze the mechanisms of failure from a technical standpoint (e.g., this bolt fractured via fatigue crack propagation, or this bolt failed by galvanic corrosion).
  - Highlight what you believe to be the root cause of the disaster (this could be anything – physical, human, organizational, environmental, etc. issues). Create a take-home message.
- Make sure that the poster:
  - Uses evidence (cite it) – evidence can come from the book or the Internet. Be specific.
  - Includes images that you interpret. Images count as evidence. Graphics too.
  - Is understandable to someone who is not familiar with the case study. Explain any framework that you use (briefly) and bring people up to speed.
  - Blends technology and history. Be cool, my friends, and coolness will be yours.
- If you like, make your poster “Expo-sized” – 24” wide x 36” tall – in case you decide to present this work at the fall Expo.

Inviting Disaster Narratives:

- Air France Concorde (Intro, p. 4)
- Ocean Ranger drill rig (Ch. 1, p. 18)
- Mark 14 Torpedo (Ch. 4, p. 95)
- Hubble telescope (Ch. 4, p. 103)
- DC-10 door (Ch. 4, p. 120)
- Airliner oxygen canister (Chapter 6, p. 151)
- Hartford Civic Center (Ch. 8, p. 192)
- Citicorp center (Ch. 8, p. 197)
- Nitroglycerine (Ch. 9, p. 209)
- Union Carbide (Ch. 11, p. 260)
- Steamboats (Ch. 11, p. 268)
- Millions of others in the appendix!!!