

Download Structural Engineering Manual

This website contains text material to help the structural engineering student learn the principles of the profession. The site will eventually contain the author's collected notes and ideas from 20 years of teaching undergraduate and graduate structural engineering courses as well as continued practice in the profession since 1981. The history of structural engineering dates back to at least 2700 BC when the step pyramid for Pharaoh Djoser was built by Imhotep, the first engineer in history known by name. Pyramids were the most common major structures built by ancient civilizations because it is a structural form which is inherently stable and can be almost infinitely scaled (as opposed to most other structural forms ...). The Council of American Structural Engineers (CASE) defines a structural engineer as: "An engineer with specialized knowledge, training, and experience in the sciences and mathematics relating to analyzing and designing force-resisting systems for buildings and other structures." A structural engineer usually has one of two roles on a building project, as identified by CASE: The Engineering area contains most of the reference material needed to design and construct a Capital Program project. Included are topics about Policy, Procedures, Specifications and Design Standards (Manuals, Guidelines, and Computer Aided Design and Drafting drawings).