CE 160 Final Exam Review

Wednesday, May 20, 2015; 09:45 a.m. – 12:00 noon
Room: Clark 202

Open Book, Closed Notes (one 3 inch x 5 inch note card O.K.)

- Be guided by the problems and concepts presented in homework sets 1-7 and lab material that supports homework problems and lecture material;
- Practice by solving problems;
- Homework solutions at: http://www.engr.sjsu.edu/vukazich.ce_160.htm;

Concept of Tributary Area, Live Load, Dead Load........................................2.1–2.4
Applications of the Equations of Equilibrium (Statics).................................3.1–3.7
General Stability, Determinacy Analysis.......................................................3.8–3.10, 5.7
Truss Analysis
  Method of Joints, Zero-Force Members .......................................................4.1–4.5
  Method of Sections .........................................................................................4.6
  Stability, Determinacy Analysis for Trusses ..................................................4.7
V and M Diagrams for Beams ........................................................................5.1–5.4
V, M, and F Diagrams for Frames ...................................................................5.1–5.4
Constructing Influence Lines for Beams .........................................................8.1–8.3
Muller-Breslau Principle ..................................................................................8.4
Using Influence Lines for Beams .....................................................................8.5
Influence Lines for Girders Supporting Floor Systems ....................................8.6
Influence Lines for Trusses ...............................................................................8.7
Deflections – Double Integration for Beams .....................................................9.1–9.2
Deflections – Tabulated Solutions for Beams .................................................9.6
Deflections – Principle of Virtual Work, Truss Deflections ...............................10.1–10.5
Deflections – Principle of Virtual Work, Beam and Frame Deflections ..........10.6
Indeterminate Structures – Flexibility Method .................................................11.1-11.4