

## CE 415

### Midterm review and important

- You have to answer two questions out of three.
- Each question has a and b part. a part is math problem and b part is theory question.
- Math problems will be straight forward like class lecture, only numbers will be changed.
- Theory questions will be short answered and direct question based on class lecture.

Syllabus for midterm: Lecture 1 to Lecture 6

### Midterm information:

Exam time: 1 hour

Type: Physical Exam

Total marks: 25

To be answered: 2 Math + 2 short theory question

Schedule: To be announced

### Important Math:

Staggered holes: Example 2 (Lecture 2, slide 12)

ASD load capacity (Lecture 3, slide 4-7)

Tension member design problem (Lecture 4, slide 7-9)

Determine block shear strength (Lecture 5, slide 10)

Equation of strain-stress curve (Lecture 6, slide 8)

### Important Theories:

LRFD and ASD (Lecture 1, slide 5), Cold form and hot rolled steel (Lecture 1, slide 9), Block shear failure (Lecture 5, slide 5), Sources of residual stress (Lecture 6, slide 3), residual stress distribution in hot rolled section (Lecture 6, slide 5)

### Notes:

Next week, you have 2 review classes online for midterm. After the review classes, if required I will arrange physical review classes as per students' needs.