

## ARCH 614. Study Guide for Quiz 7

This guide is not providing “answers” for the conceptual questions. It is a list of topical concepts and their application you should be familiar with. It is an *aid* to help prepare for the quiz.

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### Covers material of Lectures 14 & 15

- Lumber vs. engineered timber characteristics
- Various strengths (directionality, wood type, etc.)
- Creep
- Design methodologies and obtaining allowed stresses (duration, multiple member use....)
- Column stability factor,  $F_{CE}$  &  $l/d$
- Nominal dimensions
- Design vs. analysis
- Effective length,  $K$  & bracing
- Built-up and spaced columns
- Beam-Columns
- Combined bending and compression – *interaction*
- P- $\Delta$  effect
- Eccentricity
- Connection stresses
- Design vs. analysis
- Bolt designations
- Effective net area
- Connection types
- Nail load capacity charts
- Bolt capacity charts and relation to wood strengths
- Single vs. double shear