

**Department: Civil & Environmental Engineering**  
**Level and Major: Graduate - Earthquake Engineering**

**Division: Civil engineering**

**Course Title:** design of masonry and wood structures

**Number of Credits: 3**

**Prerequisite (Corequisite):** Structural analysis (I), Concrete Technology **Lecturer: -**

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### **Course Topic**

- **Masonry structures:** recognition of bricks and blocks , mortar, foundation and considerations of designing them, horizontal and vertical ties and considerations of designing them, openings and relevant considerations of designing them, load received, design based on regulations
- **Wood structures:** recognition of varieties of woods like timber and ply wood ,the process of preparing woods for structural components, features of woods include modulus of elasticity ,bending , stretching and bending pressure and the allowable stresses of woods, live, dead loads and thermal load on wood structures ,design of wooden structures and with two approaches of the allowable stress design (ASD)and load and strength factor design (LRFD)design of structural members: column-beam-shear wall and diaphragm and wooden truss, types of wooden member connections ,performance of wooden structures in earthquake ,shrinkage and creep of wooden members, familiarity with defects and disadvantages of wood, inspection and repair of wooden structures

Course Description:

Reading Sources:

Course Goals and objectives:

Evaluation:

Course topics:

The course aims to: