COURSE SYLLABUS

COURSE NUMBER: CIVE 528
COURSE TITLE: Design of Masonry Structures

COURSE DESIGNATION
Technical elective for Civil and Construction Engineering majors

COURSE DESCRIPTION
Materials for masonry construction. Design procedures utilizing the allowable stress and ultimate strength principles. Emphasis on hollow concrete masonry units. Seismic design of masonry buildings. (3 credits)

PRE-REQUISITE
CIVE 321

LECTURES SCHEDULE
Lecture – 3 sessions per week, 50 minutes per session

TEXTBOOK

COURSE LEARNING OUTCOMES
1) Solve problems in mathematics through multi-variable calculus, calculus-based physics, and one additional area of science
2) Solve well-defined engineering problems in four technical areas appropriate to Civil Engineering
3) Apply relevant techniques, skills, and modern engineering tools to solve a simple problem
4) Analyze a complex situation involving multiple conflicting professional and ethical interests, to determine an appropriate course of action
5) Demonstrate the ability to learn on their own, without the aid of formal instruction

TOPICS COVERED
- Introduction and Materials
- Flexural Design
- Retaining Walls
- Shear Design
- Columns
- Combined Bending and Axial Forces
- Shear Walls
- Bearing Walls
- Design of Masonry Buildings
- Brick Masonry
- Advanced Topics
- Exams and Review

GRADING
Homework assignments and quizzes 20%
Exams 50%
Final 30%