

## **CVE 501: DESIGN OF CONCRETE STRUCTURES II (2 Units)**

TWO WAY SLABS – design and detailing of one span and continuous slabs. Two way ribbed and flat slab. Reinforcements in foundations- pads and strip footings, slab grids e.t.c. portal frames, beams and column systems. Retaining walls- cantilever and counterfort types. Liquid retaining structures; under and on ground and over head tanks. Bunkers and silos. Precast concrete members and structures- rules of use and examples. Introduction to finite element. Students project.