Course: **CE 684 - Advanced Reinforced Concrete Design**  
Semester: Fall 2000

Instructor: Jose P. Gomez  
Phone No.: 804-293-1936

Office Address: University of Virginia; Transportation Research Council; Room 248 Shelburne Building; 530 Edgemont Road; Charlottesville, VA. 22903

E-Mail Address: jpg4k@virginia.edu

**Textbook(s):** (Student to purchase)


**Reference(s):** (To be put on library reserve) - Limit 4

**Computer Needs:**

Microcomputer  
Capability: A P.C. is recommended in order to do indeterminate structural analysis.

Software required? Any software program to do structural analysis is acceptable. The students in residence have a program entitled RISA-3D
BEGINNING-OF-COURSE STATEMENT

CE 403 Design of Concrete Structures II
CE 684 Advanced Reinforced Concrete Design
Fall Semester 2000
8:00-9:15 p.m., M-W

Instructor: Jose Gomez, Ph.D., P.E.
Adjunct Lecturer, Dept. of Civil Engineering and Applied Mechanics
Research Scientist, Va. Transportation Research Council
Office: Room 248, Shelburne Building
Office Phone: 293-1936


Prerequisites: CE 326 or Graduate Standing

Basic Objectives of Course:

This is an advanced course in the design of reinforced concrete structures. The course builds on the concepts developed in the introductory course and extends these topics as well as introduces new ones. It is a goal of this course to develop familiarity with, and understand the background of, the ACI Building Code.

Course Outline:

Review of short columns and design of slender columns
Review of design of flexural members, design of continuous structures
Moment-curvature relationships, deflections, moment redistribution
Review of shear design, design for torsion
One-way and two-way slab design
Retaining walls, environmental structures

Grading:

Homework, Paper 20%
Quizzes 45%
Final exam 35%

Jose Gomez

Jose Gomez is a Senior Research Scientist with the Virginia Transportation research Council. He conducts research in the area of bridge design and analysis, field testing of bridges, and the application of advanced materials in bridge construction. He is also an adjunct instructor in the Department of Civil Engineering and Applied Mechanics at the University of Virginia. He has taught courses in structural analysis and design. He holds advanced degrees in Civil Engineering from the University of Virginia. He is a 1979 graduate in Civil Engineering from VMI. Jose is a Licensed Professional Engineer in the Commonwealth of Virginia.