

Course syllabus

Department of Civil Engineering, Indian Institute of Technology Madras

CE3520 - Foundation Engineering

Credit Distribution: C:9 L:3 T:0 P:0 E:0 O:6 TH:0

Course Type: Theory

Description: To provide advanced knowledge on foundation design.

Course Content: Bearing capacity and settlement analysis of shallow foundations. Design of shallow foundations. Ground improvement techniques. Lowering of ground water. Design of pile foundations and pile load tests. Design of well foundations and bulkheads. Earthwork excavations. Underpinning of foundations. Introduction to machine foundations.

Text Books

- Foundation Analysis and Design, 4th Edition, Mc. Graw International, Book Company, Bowels, J.E. , 1988.
- Foundation Design and Construction, 6th Edition, English Language book society, Longman, Tomlinson, M.J. , 1988.
- Principles of Foundation Engineering, 4th Edition, PWS Publishing, Singapore, Das, B.M. , 1999.
- Modern Geotechnical Engineering, 2nd Edition, CBS Publishers, New Delhi, Singh, A. , 1990.
- A text book of soil Mechanics and Foundation Engineering, Sri Kripa Technical Consultants, Bangalore, Murthy, V.N.S. , 1992.
- Add at least one of the new text book, after 2010.

Reference Books: NIL

Prerequisite: NIL