

Course guide

290639 - MECSOL14 - Soil Mechanics and Foundations

Last modified: 05/07/2024

Unit in charge: Vallès School of Architecture
Teaching unit: 753 - TA - Department of Architectural Technology.
Degree: DEGREE IN ARCHITECTURE STUDIES (Syllabus 2014). (Compulsory subject).
Academic year: 2024 **ECTS Credits:** 3.0 **Languages:** Catalan

LECTURER

Coordinating lecturer: CARLES JAEN GONZALEZ
Others: Primer quadrimestre:
CARLES JAEN GONZALEZ
IGNACIO COSTALES CALVO

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

Specific:
ET1G. An aptitude for conceiving, calculating, designing and executing foundation solutions and integrating them into existing buildings and urban areas (T).

Generical:
CE1. An aptitude for creating architectural projects that meet both aesthetic and technical demands.
CE8. An understanding of structural, construction and engineering design problems related to building design.

TEACHING METHODOLOGY

LEARNING OBJECTIVES OF THE SUBJECT

Provide the student the knowledge to carry out a foundation project.

STUDY LOAD

Type	Hours	Percentage
Self study	42,0	56.00
Hours medium group	16,5	22.00
Hours large group	16,5	22.00

Total learning time: 75 h



CONTENTS

Syllabus

Description:

Soil mechanics and foundation structures.

Full-or-part-time: 33h

Theory classes: 16h 30m

Practical classes: 16h 30m

GRADING SYSTEM

BIBLIOGRAPHY

Basic:

- Rico Rodríguez, Alfonso; Castillo, Hermilo del. La Ingeniería de suelos en las vías terrestres : carreteras, ferrocarriles y aeropistas. México, D.F. [etc.]: Limusa, 1974-1977. ISBN 9681800540.
- Terzaghi, Karl; Peck, Ralph B. Mecánica de suelos en la ingeniería práctica. 2ª ed. Barcelona [etc.]: El Ateneo, 1958. ISBN 8470210203.
- Jiménez Salas, José A; Justo Alpañes, José L. de; Serrano González, Alcibíades A. Geotecnia y cimientos. Madrid: Rueda, 1971-1980. ISBN 8472070174.
- Bowles, Joseph E. Propiedades geofísicas de los suelos. Bogotá [etc.]: McGraw-Hill, 1982. ISBN 9684511183.
- Rodríguez Ortiz, José María; Serra Gesta, Jesús; Oteo Mazo, Carlos. Curso aplicado de cimentaciones. 4a ed. Madrid: Colegio Oficial de Arquitectos de Madrid, 1989. ISBN 8485572378.
- CSI. Manual programmes CSI SAP2000, SAFE, ETABS [on line]. CSI, [Consultation: 19/09/2024]. Available on: <https://www.csiamerica.com/>.