



UNIVERSITÀ
degli STUDI
di CATANIA

DEPARTMENT OF CIVIL ENGINEERING AND ARCHITECTURE
Master's Degree in Structural and Geotechnical Civil
Engineering
Academic Year 2017/2018 - 2° Year

PONTI E GRANDI STRUTTURE

ICAR/09 - 6 CFU - 2° Semester

Teaching Staff

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LEARNING OBJECTIVES

Design and verification of simple bridges

DETAILED COURSE CONTENT

Bridge types. Parts of the bridge: Deck, piers, abutments, bearing devices, expansion joints etc. Selection of the bridge type and materials. Codes. Loads on bridges. Influence lines. Torsion. Beam bridges. Reinforced concrete decks. Composite decks. Foundations and abutments. Stay-cable bridges. Seismic design of bridges. Constructional Techniques

TEXTBOOK INFORMATION

Ioannis Vayas, Aristidis Iliopoulos. Design of composite steel concrete bridges to Eurocodes. CRC Press, Taylor and Francis Group. ISBN: 978-1-4665-5744-4

Raithel Aldo- Costruzioni di Ponti-Liguori Editore-Napoli 1970

Raithel Aldo. Ponti a travata - volume primo -Liguori Editore-Napoli 1978

Petrangeli Mario Paolo. Progettazione e Costruzione di Ponti-Masson

Priestley M. J. N., Seible F., Calvi G. M. Seismic Design and Retrofit of Bridges; John Wiley & Sons; 1996. ISBN: 978-0-471-57998-4

Normative Tecniche in vigore (D.M.14/01/2008 e ss.mm.ii, Circolare 2/2/2009, Eurocodici)
