UNIVERSITÀ DI PAVIA

Anno Accademico 2019/2020

BRIDGE STRUCTURES

Anno immatricolazione	2018/2019
Anno offerta	2019/2020
Normativa	DM270
SSD	ICAR/09 (TECNICA DELLE COSTRUZIONI)
Dipartimento	DIPARTIMENTO DI INGEGNERIA CIVILE E ARCHITETTURA
Corso di studio	CIVIL ENGINEERING FOR MITIGATION OF RISK FROM NATURAL HAZARDS
Curriculum	Reduction of seismic risk
Anno di corso	2°
Periodo didattico	Primo Semestre (23/09/2019 - 16/10/2019)
Crediti	6
Ore	51 ore di attività frontale
Lingua insegnamento	English
Tipo esame	SCRITTO E ORALE CONGIUNTI
Docente	CALVI GIAN MICHELE (titolare) - 6 CFU
Prerequisiti	---
Obiettivi formativi	---
Programma e contenuti	-Introduction: Evolution of design and construction practise -Bridge types: simply supported and continuous beam, truss, arch, stayed and suspension bridges -Loads on bridges: gravity, traffic, wind, earthquakes, collisions, currents, temperature (L) -Examples of solutions of bridge design (T) -Deck considerations: solution of indeterminate beams, influence lines and surfaces -Deck considerations: pre-stressed beams, concrete box, steel-concrete composite -Design of piers, foundations, bearings and joints (L)

	-Application of influence and surface lines (T) - Design of a bridge deck: flexure, shear, torsion, pre- and post-tensioning, steel-to-concrete connection (T) -Construction methods -Maintenance and degradation, assessment and strengthening (L) -Design of foundation and pier systems (T) -Design of bearings and expansion joints (T) -Examples of construction methods (T) -Case studies on degradation, assessment and strengthening (T) -Seismic Design of bridges (L) -Case studies on seismic design, assessment and strengthening (T) -Roads Systems, damage scenarios, prioritization schemes (L) -Summary of the course, Q&A
Metodi didattici	---
Testi di riferimento	---
Modalità verifica apprendimento	-Homework assignements -Final exam
Altre informazioni	---
Obiettivi Agenda 2030 per lo sviluppo sostenibile	$lbl_legenda_sviluppo_sostenibile