UNIVERSITÀ DI PAVIA

Anno Accademico 2019/2020

HISTORICAL DEVELOPMENT OF STRUCTURAL MECHANICS

Enrollment year	2018/2019
Academic year	2019/2020
Regulations	DM270
Academic discipline	ICAR/09 (CONSTRUCTION TECHNIQUES)
Department	DEPARTMENT OF CIVIL ENGINEERING AND ARCHITECTURE
Course	CIVIL ENGINEERING
Curriculum	Strutturistico
Year of study	2°
Period	2nd semester (02/03/2020 - 12/06/2020)
ECTS	3
Lesson hours	23 lesson hours
Language	Italian
Activity type	WRITTEN AND ORAL TEST
Teacher	STAGNITTO GIUSEPPE (titolare) - 3 ECTS
Prerequisites	The preliminary knowledge of Mechanics of Solids and Structures and Structural Engineering is recommended
Learning outcomes	The aim of the course is the understanding of the meaning and of the gradual historical development of the design and assessment methods used by engineers in their profession. The best possible introduction to the course is this citation taken from Louis De Broglie's book "Sur les sentiers de la science": "When a young mind in formation is introduced to the study of whatever subject of scientific knowledge, it should firstly retrace more or less quickly the main milestones that humanity managed to achieve in the past in order to build the

	contemporary science".
Course contents	- The mechanics of the ancients - The "Scienza Nuova" and its precursors - The 18th century and the birth of the "science of building" - The first structural calculations - The 19th century and the "engineers' architecture" - The birth of the reinforced concrete - The new building techniques
Teaching methods	Lectures (hours/year in lecture hall): 23 Tutorials (hours/year in lecture hall): 0 Workshops (hours/year in lecture hall): 0
Reccomended or required readings	During the lectures, teaching material will be provided. E. Benvenuto. La scienza delle costruzioni e il suo sviluppo storico. Ed. Sansoni. G. Stagnitto. Evoluzione scientifica e costruzioni. CLU, Pavia.
Assessment methods	Oral exam.
Further information	/
Sustainable development goals - Agenda 2030	$lbl_legenda_sviluppo_sostenibile