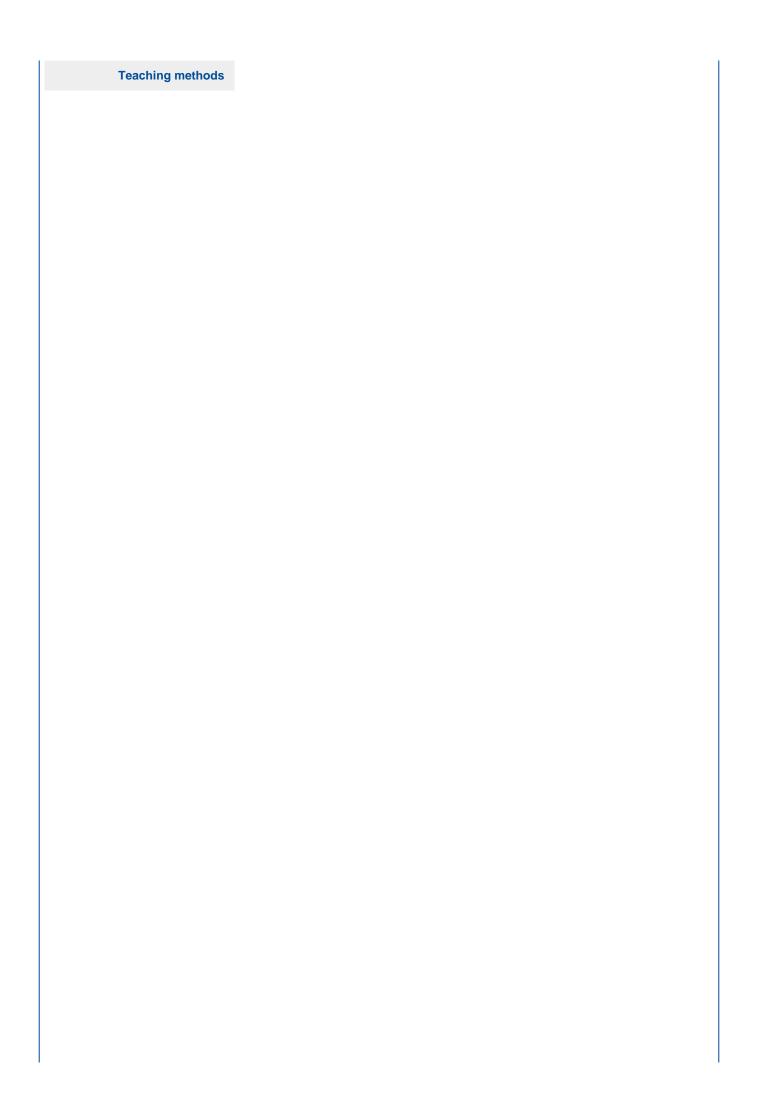
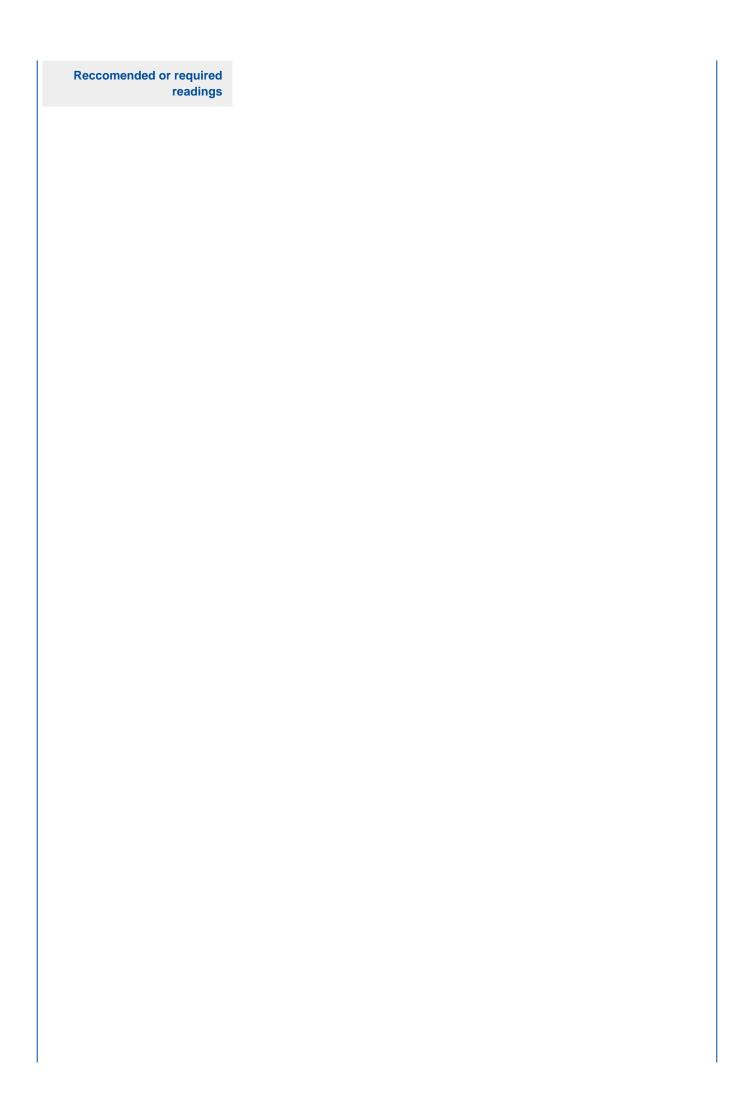


## Anno Accademico 2021/2022

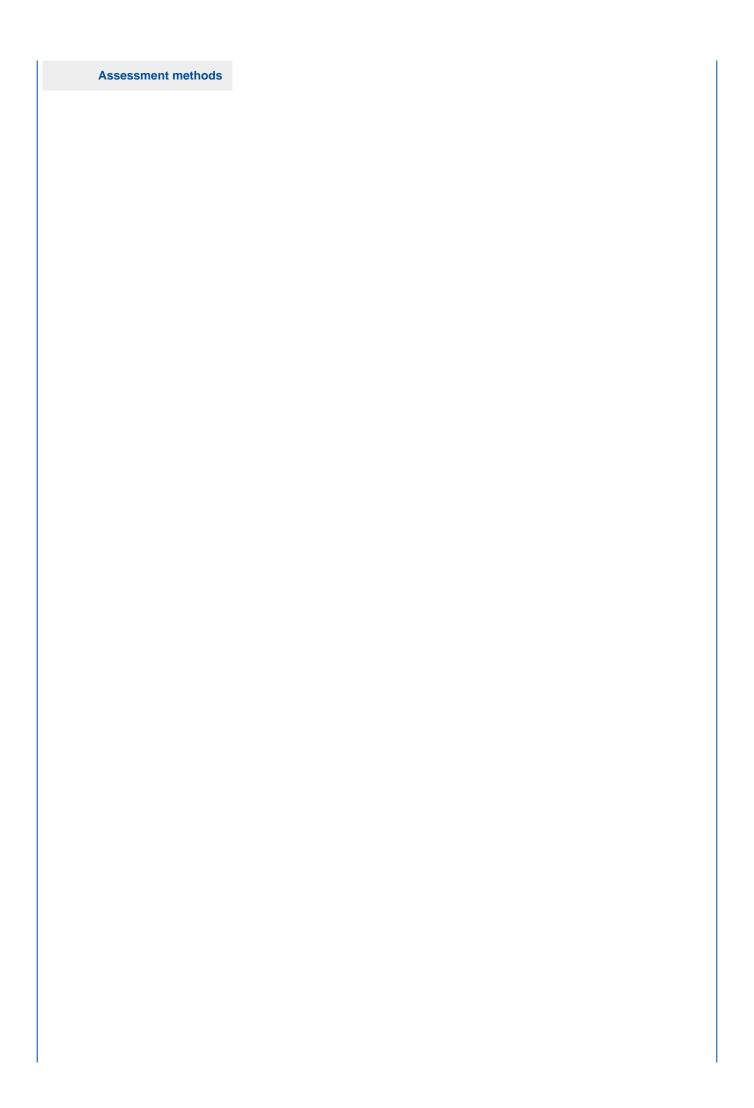
RATIONAL MECHANICS		
Enrollment year	2020/2021	
Academic year	2021/2022	
Regulations	DM270	
Academic discipline	MAT/07 (MATHEMATICAL PHYSICS)	
Department	DEPARTMENT OF CIVIL ENGINEERING AND ARCHITECTURE	
Course	BUILDING ENGINEERING AND ARCHITECTURE	
Curriculum	PERCORSO COMUNE	
Year of study	2°	
Period	2nd semester (07/03/2022 - 17/06/2022)	
ECTS	6	
Lesson hours	60 lesson hours	
Language	Italian	
Activity type	WRITTEN AND ORAL TEST	
Teacher	PEDRINI ANDREA (titolare) - 5 ECTS ROSSO RICCARDO - 1 ECTS	
Prerequisites	Linear algebra, calculus, ordinary differential equations.	
Learning outcomes	The objective of the course is to provide a basis for the analytical modeling of problems in mechanics, including elementary problems in continuum mechanics.  The expected result is to earn the capability to apply analytical methods to basic aspects of statics of structures.	
Course contents	The course aims at illustrating the role of mathematical modelling in structural mechanics; special emphasis is given to statics and equilibrium stability. Topics: Tensorial algebra; Differentiable curves in space; Systems of applied vectors; Inertia; Kinematics; Lagrangian dynamics; Equilibrium of mass-point systems; Equilibrium stability; Stratics of one-dimensional continua.	



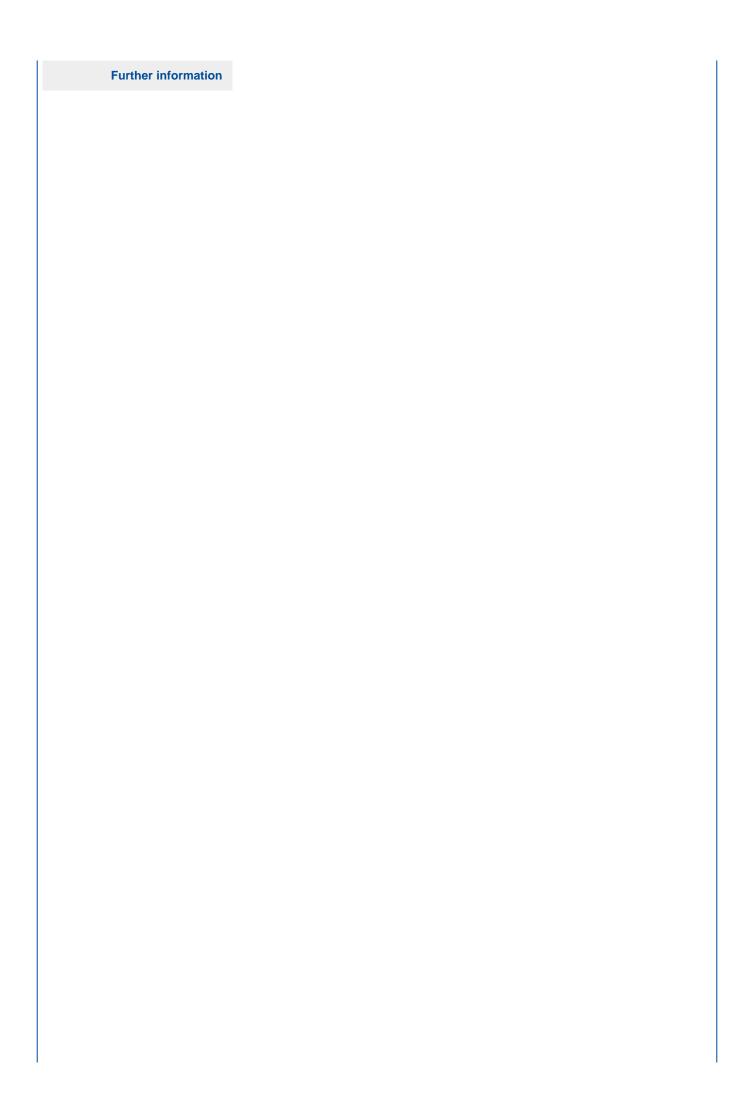
Lectures, Exercise Classes, and Tutoring.



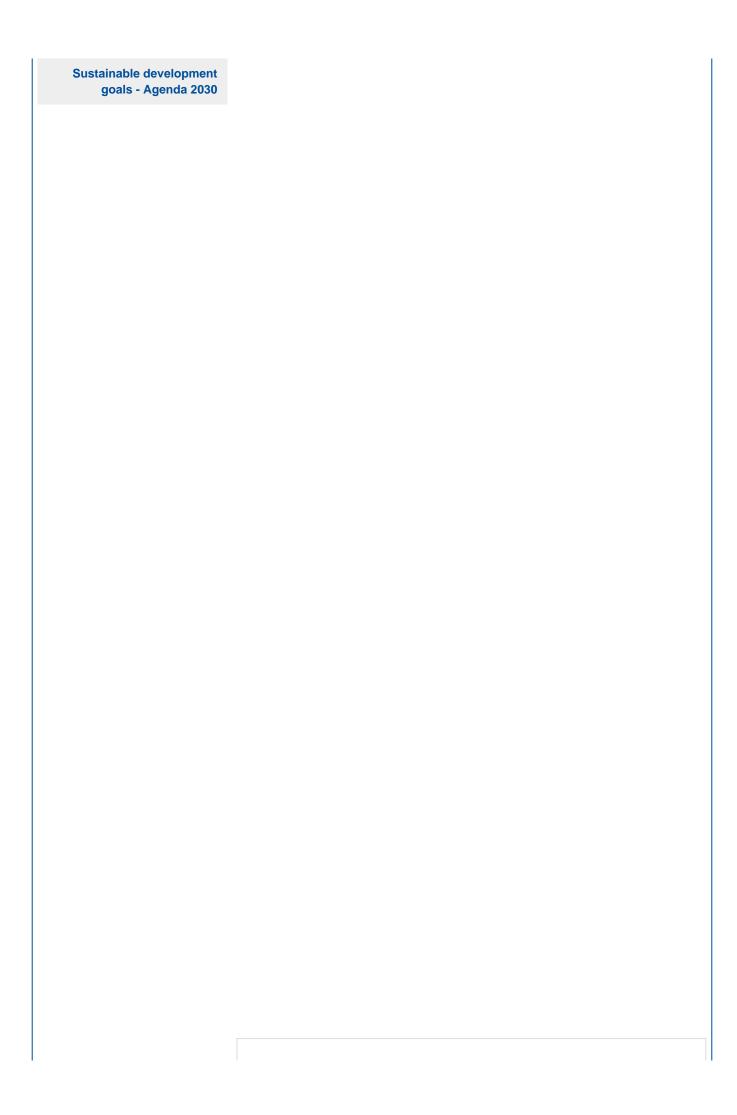
- P. Biscari, C. Poggi, E.G. Virga. Mechanics Notebook. Liguori. Napoli, 2^ edizione, 2005.
- F. Bisi, R. Rosso. Introduzione alla Meccanica Teorica. La Dotta, Bologna, (2014)
- P. Biscari. Introduzione alla Meccanica Razionale, Springer, Milano, 2015.
- G. Grioli. Lezioni di Meccanica Razionale . Cortina. Padova, 1985.



Written test and (optional) oral test.



Written test and (optional) oral test.



The goals