COURSE: Mechanics and Dynamics of Structures: Module of "Dynamics of Structures"			
ACADEMIC YEAR:2017-2018			
TYPE OF EDUCATIONAL ACTIVITY: (Basic, Characteristic, Affine, Free choiche, Other)			
TEACHER: Maria Anna De Rosa			
e-mail: maria.derosa@unibas.it		web:	
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Language: italian			
ECTS:6	n. of hours:54	Campus: Potenza-School of Engineering	Semester: I

EDUCATIONAL GOALS AND EXPECTED LEARNING OUTCOMES
The student must be able to understand the dynamic behavior of a system, apply it to other structural patterns and deepen it as it has learned.

PRE-REQUIREMENTS
Strength of materials

SYLLABUS
- Dynamic behaviour of discrete systems with one or n degrees of freedom: free vibration frequencies and vibration modes, resonances. The presence of damping. Dynamic behaviour of one-dimensional continuous systems: the equations of motion for Euler-Bernoulli beams and for Timoshenko beams. Discretization methods for continuous systems, and finite element approaches for the dynamic analysis of trusses and frames

TEACHING METHODS
Theoretical lessons.

EVALUATION METHODS
Oral examination

TEXTBOOKS AND ON-LINE EDUCATIONAL MATERIAL
Notes from the teacher
Meirovitch "Fundamentals of vibrations" McGRAW-HILL

INTERACTION WITH STUDENTS:
The teacher, after explaining the content of the course, will collect the entries. Each student enrolled will receive detailed course notes.

EXAMINATION SESSIONS (FORECAST)[1]
22/01/2018, 21/02/,2018,21/03/2018, 18/04/2018, 16/05/2018, 13/06/2018, 18/07/2018, 19/09/2018, 17/10/2018, 21/11/2018,12/12/2018

SEMINARS BY EXTERNAL EXPERTS YES □ NO x

FURTHER INFORMATION

[1] Subject to possible changes: check the web site of the Teacher or the Department/School for updates.