Università degli Studi della Basilicata
Scuola di Ingegneria

COURSE:				
TEACHER:				
e-mail:		website:		
Language				
ECTS:	n. of hours:	Academic year:	Campus:	Semester:

TOPICS

Kinematic and static analysis of skeletal structures – Stress analysis – Deformation analysis – Hooke law – Plane stress and plain strain – Two-dimensional structures – Virtual work – Potential energy – De Saint-Venant beam theory: normal stress, bending, torsion, flexure – Euler-Bernoulli beam theory – Timoshenko beam theory – Critical loads – Influence lines

TEACHING METHODS (please tick one or more options)

x Theoretical lessons
x Tutorials in classroom
☐ Tutorials in laboratory
☐ Project works
☐ Technical visits
Other activities (please specify) _____

TEXTBOOKS

ON-LINE EDUCATIONAL MATERIAL

web address: www.scienzadellecostruzioni.co.uk

LEARNING OUTCOMES

Bending moments and shear stresses for statically determinate frames - Displacements for statically determinate frames - Bending moments and shear stresses for redundant frames - Displacements for redundant frames – Critical loads for beams

REQUIREMENTS; Linear algebra, limits, derivatives, integrals, notions of symbolic calculus

EVALUATION METHODS (please tick one or more options)

☐ Intermediate verifications
☐ Written examination
☐ Discussion of a project work
☐ Practical test
☐ Oral examination
Other methods (please specify) _____

DETAILED CONTENT

SEMINARS BY EXTERNAL EXPERTS YES ☐ NO x

FURTHER INFORMATION