

  <p>UNIVERSITY OF TRIESTE DEPARTMENT OF ENGINEERING AND ARCHITECTURE</p> <p>Prof. Daniele Zaccaria</p>	<p>Course of</p> <h1>Scienza delle Costruzioni</h1> <p>(Mechanics of Solids and Structures)</p> <hr/> <p>Civil and Environmental Engineering Industrial Engineering Naval Engineering</p>
<p>9 credits for about 90 hours (Sep 2018 – Dec 2018)</p>	

SOLID MECHANICS

- **Structural Models**
- **Foundations of Solid Mechanics**
- **Mechanical Behavior of Materials**
- **Analysis of Stress**
- **Analysis of Strain**
- **Principle of Virtual Work**
- **Linear Elastic Isotropic Solids**

ROD MECHANICS

- **Foundations of Rod Mechanics**
- **Rods Loads and Deformations**
- **Principle of Virtual Work**
- **Linear Elastic Rods**
- **Bernoulli-Euler Model**
- **Plane Mass Geometry**
- **Normal Tension Distribution (Bending and Tension)**
- **Saint-Venant's Model**
- **Torsion Problem**
- **Center of Shear**
- **Shear Stress Distribution (Shear and Torsion)**

RODS SYSTEMS

- **Static and Kinematic Analysis**
- **Static of Statically Determinate Structures**
- **Displacements and Rotations in Statically Determinate Structures**
- **Statically Indeterminate Structures**
- **Dislocations**
- **Symmetric Structures**
- **Frames and Trusses**