ANNO ACCADEMICO 2017/2016

CORSO DI STUDIO IN SCIENZE GEOLOGICHE (II ANNO)
INSEGNAMENTO di GEOLOGIA II
DOCENTE Prof. MAURIZIO M. TORRENTE
PROGRAM

- Course presentation: Tectonics and Geodynamics.
- General features of the Earth.
- The continental drift theory.
- The Seafloor expansion.
- The plate tectonics theory.
- Divergent plate margins.
- Convergent plate margins.
- Transform plate margins.
- Tipes of data.
- Stereographic projections.
- Structural analysis.
- Trasformation in Tectonics.
- Strain
- Geological meaning of the strain (boudinage and buckle folding).
- Rock fabric
- Folds: introduction and geometry.
- Cilindrical e not cilindrical folds; parallel and similar folds; dip isogons.
- Stereographic projections and folds (β-diagram, π-diagram).
- Folding mechanisms.
- Seismic reflection profiles: geophysical hints and techniques of interpretation.
- Shear zones.
- Faults: geometrical and kinematical classifications.
- Faults: architecture and fault-related folds.
- Hints on balanced cross sections.
- Fractures: dynamical classification.
- Faults and state of stress.
- Structures associated to the divergent plate margins.
- Structures associated to the Transform plate margins.
- Orogenic theories and the birth of the concept of thrust fault.