TITOLO DEL CORSO BIOSTRATIGRAPHY			
Settore Scientifico - Disciplinare: GEO/01		**CFU: 6** (4 LF + 2 LAB)	**Ore: 56**
Ore di studio per attività:	**Lezioni frontali:** 2	**Laboratorio:** 1	**Attività di campo:** 0
Tipologia di attività formativa: caratterizzante			

SYLLABUS

Prerequisiti:
General knowledge on Paleontology and Stratigraphy

Lezioni frontali	
numero di ore 2	Argomento: Definition of bioevent. Evolution, Theories (Lamarckism and Darwinism). Natural selection and genetic drift. Microevolution and Macroevolution, models. The Precambrian and origin of life on earth.
numero di ore 4	Argomento: Stratigraphy. Lithostratigraphy. Biostratigraphy: the biozone, criteria and types of biozones. Cronostratigraphy, categories, stratotype, the cronozone. Geocronology
numero di ore 2	Argomento: Fossilization: biostratinomy, geopetal structures. Components of carbonate rocks and classification.
numero di ore 7	Argomento: Systematics. Analysis of a paleontological publication. Typification, open nomenclature. Systematics on Algae. Cyanobacteria, Actinobacteria, Green algae Dasycladales: general characters and biomineralization. Observation and detection of characters in thin section. Systematics of Dasycladales at family rank and most representative genera. Other Green Algae: Ord. Tetrasporales, Ord. Thaumatoporellales, Ord. Bryopsidales, Fam. Gymnocodiaceae. Division Charophyta. Red Algae. General characters and systematics of not-articulated Corallinaceans. Ecology.
numero di ore 7	Argomento: Class Ciliophora. General characters and systematics of Fam. Calpionellidae. Most significant genera and biostratigraphy. Foraminifera. General characters and analysis in thin section. Sections of involute planispiral long-axis coiling. Fam. Alveolinidae. Fam. Nummulitidae, orbitoids (Orbitoididae, Discocyclinidae, Lepidocyclinidae, Myogipsinidae). Gen. Orbitopsella and Orbitolina: caracters and detecting structures in thin section.
numero di ore 8	Argomento: Shallow water shelf carbonate biozonal scheme during the Upper Triassic-Jurassic interval. Review of Upper Triassic-Jurassic most significant index fossils.
numero di ore 6	Argomento: Shallow water shelf carbonate biozonal scheme during the Cretaceous and Eocene intervals. Review of Cretaceous most significant index fossils and of Lower-Middle Eocene restricted facies.
Laboratorio	

numero di ore 2	Attività: Observation in thin section. Elements on carbonate microfacies analysis (granules, matrix, cement, recrystallization spar). Duhnam's classification.
numero di ore 6	Attività: Thin section analysis of Cyanobacteria, Dasycladales, Thaumatoporellales, Bryopsidales, Gymnocodiaceae, Charophyta, Corallinales.
numero di ore 6	Attività: Thin section analysis of Calpionellidae and Foraminifera: Fam. Alveolinidae. Nummulitidae, Orbitoids, Orbitolina and Orbitopsella.
numero di ore 5	Attività: Thin section analysis of major Rhaetian-Tithonian shallow water index fossils.
numero di ore 5	Attività: Thin section analysis of major Cretaceous and Lower-Middle Eocene (restricted facies Trentinara Fm.) shallow water index fossils.
Attività di campo	
numero di ore 16	Attività: Survey of shelf carbonate stratigraphic successions of Southern Apennines. Field determination of index taxa and dating of outcrops.
Risultati di apprendimento attesi	
Knowledge and understanding: The student must be able to recognize in the laboratory and on the field the main shallow water index fossils of the Mesozoic and Paleogene carbonate platform.	
Applying knowledge and understanding: Applying knowledge on the index taxa for stratigraphic, sedimentological and paleoecological inferences.	
Making judgements: The student should integrate paleontological knowledge with those of other earth science disciplines and practice fossils to solve simple geological problems.	
Communication skills: Ability to draft a biostratigraphic report. To show adequate skills and use of information tools for palaeontology, both for specialists and non-specialists.	
Learning skills: Ability to read and understand scientific articles on biostratigraphy and palaeontology, in Italian and English. Update his own knowledge in the specific field.	
Modalità di verifica dell'apprendimento	
Esame finale: The exam is multiple choice (four solutions) with 33 questions. Grades 30/30.	