



MODELLO SCHEDA INSEGNAMENTO

Corso di LM	Geological Science and Technology
Denominazione insegnamento:	Biostratigraphic analysis techniques
Numero di Crediti:	6
Semestre:	I
Docente Titolare:	Filomena Ornella amore
Dottorandi/assegnisti di ricerca che svolgono attività didattica a supporto del corso:	No one
Orario di ricevimento:	by appointment: Monday, from 10am to 11am; Thursday from ore 14:00 to 15:00
Indirizzo:	Via Port' Arsa 11

PRESENTAZIONE DEL CORSO:

The course deals with the main techniques of biostratigraphic analysis, the reasons why a student must decide to follow the course resides in the characterizing aspect of the subject in an advanced training that is achieved through laboratory and site activities, Devoted to learning experimental methodologies and data processing.

GLI OBIETTIVI FORMATIVI

- ✓ Knowledge: facts, principles, theories and practices related to biostratigraphy.
- ✓ Skills: At the end of the course the student acquires knowledge of the main biostratigraphic analysis techniques and will be able to evaluate the analytical approach useful for solving problems related to the dating of sedimentary sequences.

PREREQUISITI RICHIESTI

The previous knowledge required concerning the paleontological knowledge and basic geological.

FREQUENZA DELLE LEZIONI

Frequency is recommended. The reasons for which a student benefits from the course attendance are mainly in the possibility of participating in laboratory activities.

CONTENUTI DEL CORSO

Stratigraphy; biostratigraphy; Major macro and microfossil groups and biostratigraphic applications; Integrated biostratigraphy; Ecostratigraphy and ecozonations; Stratigraphy with stable isotopes; magnetostratigraphy; Fossils and sequential stratigraphy.

Chronostratigraphy, geochronology and global chronostratigraphic scale; Examples of biostratigraphic applications

METODI DIDATTICI

Frontal lessons, laboratory tests, excursions to paleontological sites. The different methods contribute to the training objectives by providing, with the frontal lessons, the theoretical concepts related to discipline; The lab activities allow you to practice on preparations and fossils available in the didactic collection; Excursions to paleontological sites complement the two previous moments, allowing you to observe in the nature what you learned in the classroom and at the lab.

TESTI DI RIFERIMENTO

Bolli, H.M., Saunders, J.B., and Perch-Nielsen, K. (eds. 1985), Plankton stratigraphy. Cambridge University Press, Cambridge, 1006p.

Bown P.R. (ed 1998), Calcareous nannofossil biostratigraphy. British Micropalaeontological Society Series, Kluwer Academic. ISBN 0-412-78970-1, 328 p.

Burroughs W. J. (2007) Climate Change: A Multidisciplinary Approach. Cambridge University Press.

Emerson S.R., and Hedges J.I. (2008) Chemical oceanography and the marine carbon cycle. Cambridge University Press;

R.W.Jones (2006) - Applied Paleontology. Cambridge University Press

Pickering, K.T., Hiscott, R.N. & Hein, F.J. (1989) Deep marine environments: clastic sedimentation and tectonics. Unwin Hyman, London, 416 p.

Trujillo A.P. & Thurman H.V., (2010), Essential of Oceanography. Prentice Hall ISBN- 13: 9780321668127, 552 p.

Winter S. & Siesser W.G. (eds. 1994). Coccolithophores. Cambridge University Press. 242p. ISBN 0-521-38050-2.

<http://www.stratigraphy.org/>

www.nhm.ac.uk/hosted_sites/ina/ <http://www.nannotax.org/>

www.ucl.ac.uk/GeolSci/micropal/index.html

www.es.ucl.ac.uk/graduate/micropal/UCL-NHM_MSc.html

www.ucmp.berkeley.edu/foram/foramfr.html <http://www.cushmanfoundation.org/>

www.tmsoc.org/foraminifera-links.htm

ESAME DI PROFITTO

Oral exam and practical test. The evaluation elements consist of: relevance of responses to formulated questions, content quality, ability to link to other subjects covered by the program, ability to bring examples, technical language skills, and student's overall expressive ability.

CALENDARIO ESAMI

Rinvio al link

PRENOTAZIONE ESAMI

Rinvio al link

SYLLABUS

Argomenti	Ore	Riferimenti bibliografici	Tipologia di lezione
Stratigraphy	2	http://www.stratigraphy.org/ Pickering, K.T., Hiscott, R.N. & Hein, F.J. (1989) <i>Deep marine environments: clastic sedimentation and tectonics</i> . Unwin Hyman, London, 416 p.	Frontal lessons, laboratory tests, excursions to paleontological sites
Biostratigraphy	4	Bolli, H.M., Saunders, J.B., and Perch-Nielsen, K. (eds. 1985), <i>Plankton stratigraphy</i> . Cambridge	Frontal lessons, laboratory tests, excursions to paleontological sites
Main groups of macros and microfossils and biostratigraphic applications	4	Bown P.R. (ed 1998), <i>Calcareous nannofossil biostratigraphy</i> . British Micropalaeontological Society Series, Kluwer Academic. ISBN 0-412-78970-1, 328 p.	Frontal lessons, laboratory tests, excursions to paleontological sites
Integrated Biostratigraphy	4	Bolli, H.M., Saunders, J.B., and Perch-Nielsen, K. (eds. 1985), <i>Plankton stratigraphy</i> . Cambridge	Frontal lessons, laboratory tests, excursions to paleontological sites
Ecostratigraphy and ecozonation	2	Burroughs W. J. (2007) <i>Climate Change: A Multidisciplinary Approach</i> . Cambridge University Press. Winter S. & Siesser W.G.	Frontal lessons, laboratory tests, excursions to paleontological sites

		(eds. 1994). Coccolithophores. Cambridge University Press. 242p. ISBN 0-521-38050-2.	
Stable isotopes stratigraphy	2	Emerson S.R., and Hedges J.I. (2008) Chemical oceanography and the marine carbon cycle. Cambridge University Press; Trujillo A.P. & Thurman H.V., (2010), Essential of Oceanography. Prentice Hall ISBN- 13: 9780321668127, 552 p.	Frontal lessons, laboratory tests,
Magnetostratigraphy	2	http://www.stratigraphy.org/	Frontal lessons,
Cronostratigraphy, geocronology and global chronostratigraphic table	2	http://www.stratigraphy.org/	Frontal lessons,
Global Stratigraphic Section and Points (GSSP)	30	http://www.stratigraphy.org/	Frontal lessons, laboratory tests, excursions to paleontological sites
Examples of biostratigraphic applications	2	R.W.Jones (2006) - Applied Paleontology. Cambridge University Press	Frontal lessons, laboratory tests, excursions to paleontological sites