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**COURSE:** *APPLIED STRATIGRAPHY and SEDIMENTOLOGY*

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**ACADEMIC YEAR:** *2016-2017*

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**TYPE OF EDUCATIONAL ACTIVITY:** (Basic, Characterizing, Affine, Free choice, Other): *Basic*

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**TEACHER:** *Dott. Sergio Longhitano*

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**e-mail:** *segio.longhitano@unibas.it***website:****phone:** *+39 0971205865***mobile (optional):** *+39 340617653*

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**Language:** *English*

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**ECTS:** (lessons e tutorials/practice) *6*  
*(4 of lectures and 2 of lab activities)***n. of hours:** (lessons e tutorials/practice) *56*  
*(32 of lectures and 24 of lab activities)***Campus:** *Potenza*  
**Dept./School:** *Department of Sciences*  
**Program:** *Geosciences and Georisources (LM74)***Semester:** *winter*  
*03/10/2016, 15-31/01/2017*

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**EDUCATIONAL GOALS AND EXPECTED LEARNING OUTCOMES**

*Review of the basic and advanced principles of Stratigraphy and fundamental concepts on the identification of the Sedimentary Rocks and their importance on the detection, exploitation and protection of the Georesources ; knowledge of the main environments composing the most common depositional systems; knowledge of sedimentary processes; methodological practice on some of the main techniques of acquirement, analysis and interpretation of stratigraphic and sedimentological data, from both the field and subsoil.*

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**PRE-REQUIREMENTS**

*BSc on Geological Sciences and on Environmental Engineering or comparable*

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**SYLLABUS**

*The course aims to treat major aspects and essential elements on modern applications and perspectives of Stratigraphy and Sedimentology as tools to identify, use and defend the main Georesources. It focuses on traditional and innovative techniques and how these can be utilized in the reconstruction of the geological history of sedimentary basins and in solving manifold geological problems of identification of the best Georesources. Each lecture reviews the historical background; includes a synopsis of study principles and methodology, and discusses recent developments and significant applications. These lectures are followed by selected case histories that demonstrate the applications and efficacy of Stratigraphy and Sedimentology and related techniques applied to the study of the Georesources.*

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**TEACHING METHODS**

*Frontal lessons, seminars, video projections, field, laboratory and computer exercises*

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**EVALUATION METHODS**

*Written/practice and oral exams*

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**TEXTBOOKS AND ON-LINE EDUCATIONAL MATERIAL**

- *Nichols G., 2009. Sedimentology & Stratigraphy. John Wiley & Sons, Inc., 432 p.*
  - *Posamentier H.W. & Walker R.G., 2006. Facies Models Revisited. SEPM (Society for Sedimentary Geology), 531 p.*
  - *Selley R.C., 2000. Applied Sedimentology, Academic Press, 543 p.*
  - *Koutsoukos E.A.M., 2005. Applied Stratigraphy. Springer , 488 p.*
  - *Stow D.A.V. 2010. Sedimentary Rocks in the Field (a colour guide). Manson Publishing, 323 p.*
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**INTERACTION WITH STUDENTS**

*Chat and public meetings planned based on e-mail or phone contacts*

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**EXAMINATION SESSIONS (FORECAST)<sup>1</sup>**

*Wednesday, February 15th 2017*

*Wednesday, March 15th 2017*

*Wednesday, April 12th 2017*

*Wednesday, May 17th 2017*

*Wednesday, June 14th 2017*

*Wednesday, July 12th 2017*

*Wednesday, September 13th 2017*

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<sup>1</sup> Subject to possible changes: check the web site of the Teacher or the Department/School for updates.

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*Wednesday, October 18th 2017*

*Wednesday, November 15th 2017*

*Wednesday, December 13th 2017*

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SEMINARS BY EXTERNAL EXPERTS    YES     NO

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FURTHER INFORMATION

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