

1. COURSE SYLLABUS OF Series of lectures – Advances in Innovation Engineering and Management

Academic Year 2012/13, Semester 1 and 2

2. COORDINATOR Pasquale Russo Spena		3. ECTS CREDITS 2	
OFFICE		SCIENTIFIC FIELD	
E-MAIL ADDRESS pasquale.russospena@unibz.it		OFFICE PHONE 0471/017112	
WEB PAGE		http://www.unibz.it/en/sciencetechnology/people/StaffDetails.html?personid=29783&hstf=29783	
COURSE PAGE			
4. COURSE HOURS	About 8 x 1.5 hours	LECTURES	12
		TUTORIALS AND APPLICATION	–
		OTHERS	–
5. STUDY PROGRAMME	All	6. MAJOR IN	–
7. YEAR	All		
8. PROGRAMME STATUS	Elective	9. COURSE LANGUAGE	English, Italian
10. DESCRIPTION	The lecture series provides a multidisciplinary forum in which current approaches and emerging ideas in innovation engineering are presented and discussed.		
11. TEACHING FORMAT and ORGANIZATION	The lecture series consists of about 8 individual lectures given by FUB-internal and external lecturers who have been invited by the Faculty of Science and Technology.		
12. LEARNING OUTCOMES	<p>Upon successful completion of the course, students will be able to:</p> <ul style="list-style-type: none"> • describe current key developments in the theory and practice of mechanical and production engineering; • demonstrate knowledge in multidisciplinary approaches to engineering; • apply their newly acquired knowledge in scientific problem-solving settings and/or professional work practice. 		

13. TOPICS			
	October 2011	Design for environment as a tool for the development of a sustainable supply chain	Prof. Ciarapica
	November 2011	Sheet forming technologies for steel automotive components	Ing. D'Aiuto Fabio, Centro Ricerche Fiat
	Dezember 2011	Complex networks: structure and dynamics	Prof. Carlo Piccardi
	January 2012	Recovery of energy and material through Anaerobic digestion of residual biomass	Ing. Luigi Rutigliano Asia Ambiente
	February 2012	Additive Manufacturing and Reverse Engineering	Prof. Iuliano Luca
	March 2012	To define	To define
	May 2012	Whirlpool Company and its Manufacturing Dynamics on Home Appliance Field: From the Idea to the Warehouse	Ing. Alessandro Aronica
14. BASIC BIBLIOGRAPHY			
15. ELIGIBILITY	all		
16. RECOMMENDATION			

**17. STUDENT
ASSESSMENT**

Students who attempt to earn the available ECTS credits will have to fulfil the following criteria:

- (1) Attend at least 5 individual lectures.
- (2) Produce a short essay (a maximum of 3,000 words) of high intellectual quality and which fulfils the standards of a scientific article – i.e., concise, structured writing and an acknowledgement of all sources. Given that the lecture series is interdisciplinary, the essay will also have to reflect this characteristics in some way by demonstrating subject-transcending reflections and conclusions.
- (3) The topic of the essay is as follows: "How advanced industrial processes, materials or design methods could be useful to improve or replace traditional ones?"