

COURSE: Wood industry and processing			
ACADEMIC YEAR: 2018-2019			
TYPE OF EDUCATIONAL ACTIVITY: Basic			
TEACHER: Luigi Todaro			
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Language: italian			
ECTS: 6 (5 L + 1 E)	n. of hours: 56 (40 L + 16 E)	Campus: Potenza Dept./School: School of Agriculture, Forest, Food and Environmental Sciences Program: MSc in Forestry and Environmental Sciences	Term: 2

## EDUCATIONAL GOALS AND EXPECTED LEARNING OUTCOMES

The course provide the theoretical and technical elements in wood processing with particular regard to the production of panels and the main products derived from wood. Final competencies to be obtained in the course: systematic understanding and practical skills in the technical, environmental and mechanical aspects of wood processing. At the end of the course, students will also be able to distinguish the different types of products, the relevant Standard Regulations (UNI, EN, ISO) and health risks during wood processing.

- **Knowledge and understanding:** knowledge and understanding of the general principles governing, both at a qualitative and quantitative level, the physical and mechanical performance of wood panels.
- **Applying Knowledge and understanding:** ability to identify the principal wood products (particle board, plywood, medium density fiber, glued laminated boards). Ability to identify and to describe the industrial processes and the different used wood species. ,
- **Making judgements:** ability to discriminate the different properties of wood products and the possible uses.
- **Communication skills:** ability to organize and communicate in a logical and correct language the acquired knowledge during course.
- **Learning skills:** ability to collect and organize in a functional way the information coming from class lectures, suggested books, and literature data.

## PRE-REQUIREMENTS

basic elements of wood technology and the most common physical and mechanical characteristics of wood

## SYLLABUS

ECTS-1: (8 h) Introduction to wood industry and processing. Plants or other industrial facilities in wood processing (sawing, boards production, drying). Wood modification and innovative wood product.

ECTS -2: (8 h) Wood processing and use of main woods and plywood, modified wood, veneer, wood-based. Glued laminated timber products for structural and nonstructural use in accordance with rule (EN, EN).

ECTS -3: (8 h) Adhesives for wood products. Window and Door wood Materials. Furnishing (flooring, furniture, stairs).

ECTS -4: (8h L) Technical standards rules (UNI, EN, ISO). Physical and mechanical characteristics of the main wood species for wood industrial fields.

ECTS -5 (8 h L) Wood machining and their uses and safety for human health.

ECTS -6 (16 h E): Visiting and practice understanding at wood industry companies; experimental exercise in wood

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laboratory and identification of a different wood products.

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TEACHING METHODS

Theoretical lessons in the Classroom and laboratory.

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EVALUATION METHODS

Interview and practical examination

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TEXTBOOKS AND ON-LINE EDUCATIONAL MATERIAL

- Teaching material distributed in classroom.
  - J. M Dinwoodie: Timber: its nature and behavior.
  - G. Giordano. Tecnologia del legno UTET 1981-88 (disponibile presso la biblioteca della Facoltà)
  - Adelizzi D. 1999 - Manuale dei semilavorati: semilavorati di legno naturale e pannelli a base di legno. Consorzio LegnoLegno, Reggio Emilia.
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INTERACTION WITH STUDENTS

- in the office at planned days/hours (usually on Wednesday)
  - email, skype (every time)
  - mobile (working hours)
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EXAMINATION SESSIONS (FORECAST)<sup>1</sup>

Please see format Prof Paola D'Antonio

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EXAMINATION COMMITTEE

Prof.ssa Paola D'Antonio, Prof. Giuseppe Altieri, Dr. Luigi Todaro, Prof. Nicola Moretti

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Seminary activities from abroad expertise : yes

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FURTHER INFORMATION

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