

QANTUS

Tempus project

Genoa

25th - 26th May



***Italian HE Education System and
Environment related Teaching Offer
at University of Genoa***

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Index

- 1 Overview of Italian Qualification Framework**
- 2 Regulations concerning course of studies**
- 3 Environment related Teaching offer at UniGE**

Reference to the *Bologna process*

**Berlin Communiqué of the
Conference of Ministers,
September 2003**

***From a staff centred
approach to a student
oriented approach***

Reference to the *Bologna process*

- Action lines and tools of Bologna Process : three cycle system, ECTS, competences, learning outcomes, ***Qualifications Framework for EHEA***, Quality Assurance etc.

“Ministers encourage the MSs to elaborate a framework of comparable and compatible qualifications for their HE systems, which should seek to describe qualifications in terms of workload, level, learning outcomes, competences and profile. They also undertake to elaborate an overarching framework of qualifications for the EHEA.

Within such frameworks, degrees should have different defined outcomes. First and second cycle degrees should have different orientations and various profiles in order to accommodate a diversity of individual, academic and labour market needs. First cycle degrees should give access, ..., to second cycle programmes. Second cycle degrees should give access to doctoral studies”.

Reference to the *Bologna process*

“Old-Style Approach” – Staff centered design

Resources
already available

Tradition

Interests of the
Academic Staff

Existing
Organization of
Studies

“New Approach after Bologna” – Student centered design

Fit for
purpose

Change of
Paradigm

Learning
Outcomes

Organization
related to the
expected
results

Qualification Framework: motivations

Understand and Compare

Qualifications Framework for the European Higher Education Area is aimed at facilitating the correct understanding and comparability of qualifications in the Higher Education systems of each country.

Overview of EU teaching offer

A further aim of the Framework is to offer a comprehensive overview of the European teaching and learning offer, targeted at the students coming from all over the world.

Common Rules

Each country committed to put together a National Qualifications Framework - NQF which is compatible with the Qualifications Framework for the European Higher Education Area.

Qualification Framework: Italian view

Information

It is a tool, which describes the qualifications awarded by the Italian Higher Education institutions, in terms of expected competences and learning outcomes.

Comprehensive

It is modelled on The Qualifications Framework for the European Higher Education Area - QF for EHEA.

Transparent

Make the Italian Higher Education system more transparent and understandable

To enhance students mobility

Enhance international mobility of Italian students and graduates and facilitate their access to advanced-level studies

To facilitate employers understanding

Facilitate employers' understanding and appraisal of the qualifications awarded by Italian Higher Education Institutions

Italian HE cycles

AIMS

First Cycle

Laurea

To provide undergraduates with adequate knowledge of general scientific principles, mastery of related methods, and specific professional skills. **DURATION: 3 years**
WORKLOAD: 180 ECTS (1 credit: 25 hours of work)

Second Cycle

**Laurea Magistrale
/ Specialistica**

To provide graduates with advanced education for highly qualified professions in specific sectors, as well as with adequate training for advanced independent research. **DURATION: 2 years** **WORKLOAD: 120 ECTS (1 credit: 25 hrs)**

Third Cycle

**Dottorato di
Ricerca**

To provide postgraduates with training for highly specialized research **WORKLOAD: n.a.** **DURATION: min. 3 years**

Sectorial Qualification Framework

At moment no SQF are available in Italy.

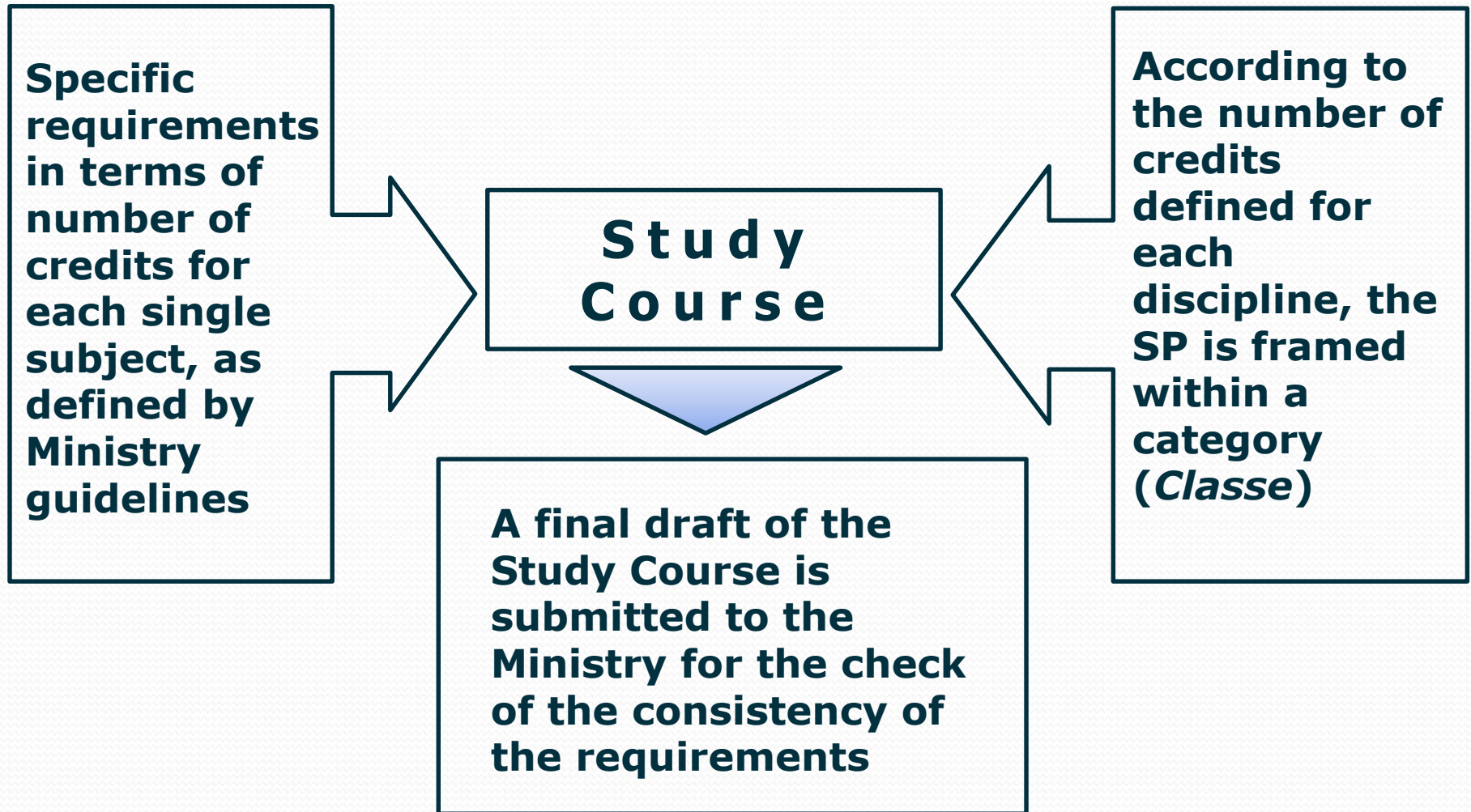
In order to carry out recognized professions (Professional Qualifications Framework) and to assume personal responsibilities, a State Exam is mandatory.

This test allows to be recorded into the Professional Charter (“Albo Professionale”)

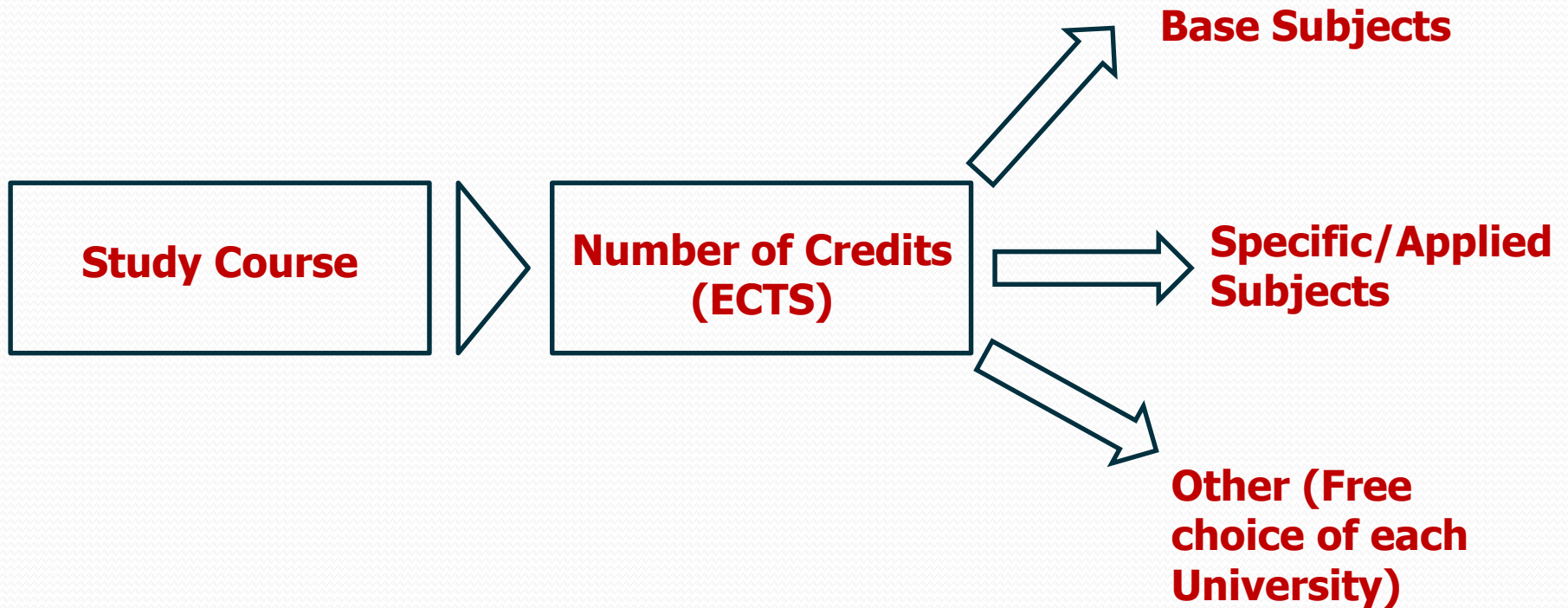
Index

- 1 Overview of Italian Qualification Framework
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Study course regulations in Italy 1/2



Study course regulations in Italy 2/2



Learning Outcomes of the Study Classes

**Classes in the Field
of Engineering**

Civil and Environmental Engineering

Industrial Engineering

Engineering of Information

**For each of the classes the Italian Ministry
of Education provides general learning
outcomes and number of minimum amount
of credits in the different disciplines**

Learning Outcomes of the Study Classes

Civil and Environmental Engineering (L-7): learning outcome for the First Cycle of HE

The graduates in this class of study must:

- **Know the methodological and operative aspects of mathematics and other base subjects, in order to interpret and describe the typical problems of engineering;**
- **Know the methodological and operative aspects of engineering subjects in general and in a deep way for those strictly related to their class, where they are able to identify the problems and to apply modern solution techniques**
- **Be able to apply techniques and instruments for the engineering design of components, systems and processes**
- **Be able to make experimental activity and to understand and analyze the results**
- **...**

Learning Outcomes of the Study Classes

Environmental Engineering (LM-35): learning outcome for the Second Cycle of HE

The graduates in this class of study must:

- **Have a deep knowledge of the methodological and operative aspects of mathematics and other base subjects, in order to interpret and describe the typical problems of engineering;**
- **Have a deep knowledge of the methodological and operative aspects of engineering subjects in general and in a deep way for those strictly related to their class, where they are able to identify the problems and to apply modern solution techniques**
- **...**

Applied Subjects: Environmental Engineering

In order to design a study course in Environmental Engineering (e.g. second cycle), it must contain at least 45 ECTS of listed specific subjects.

Specific subjects must be balanced with fundamental subjects.

These are mandatory requirements in order to get the approval of the study course.

The process is the same for all the study courses of both first and second level of HE.

ATTIVITÀ FORMATIVE INDISPENSABILI				
Attività formative:	Ambiti disciplinari	Settori scientifico-disciplinari	CFU	Tot. CFU
Caratterizzanti	Ingegneria per l'ambiente e territorio	BIO/07 - Ecologia CHIM/12 - Chimica dell'ambiente e dei beni culturali GEO/02 - Geologia stratigrafica e sedimentologica GEO/03 - Geologia strutturale GEO/05 - Geologia applicata GEO/11 - Geofisica applicata ICAR/01 - Idraulica ICAR/02 - Costruzioni idrauliche e marittime e idrologia ICAR/03 - Ingegneria sanitaria - ambientale ICAR/05 - Trasporti ICAR/06 - Topografia e cartografia ICAR/07 - Geotecnica ICAR/08 - Scienza delle costruzioni ICAR/09 - Tecnica delle costruzioni ICAR/20 - Tecnica e pianificazione urbanistica ING-IND/24 - Principi di ingegneria chimica ING-IND/25 - Impianti chimici ING-IND/27 - Chimica industriale e tecnologica ING-IND/28 - Ingegneria e sicurezza degli scavi ING-IND/29 - Ingegneria delle materie prime ING-IND/30 - Idrocarburi e fluidi del		45

Index

- 1 Overview of Italian Qualification Framework
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Teaching offer at University of Genoa

First Cycle

Bachelor in Environmental and Civil Engineering

Bachelor in Environmental and Natural Sciences

Second Cycle

Master in Environmental and Civil Engineering

Master in Environmental and Energy Engineering

Master in Environmental and Natural Science

THANKS FOR YOUR ATTENTION!

MORE INFO ABOUT UNIVERSITY OF GENOA:

<http://www.unige.it/internationalstrategies/index.shtml>

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