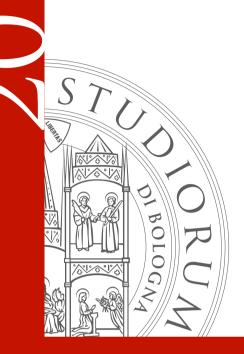


ALMA MATER STUDIORUM Università di Bologna



School of Engineering and Architecture LAUREA (FIRST CYCLE DEGREE/ BACHELOR - 180 ECTS) IN CIVIL ENGINEERING A.Y. 2013/2014 Programme Director Prof. MONTANARI ALBERTO

REPORT

Study Programme Report Civil Engineering Programme ex D.M. 270/04 - Code 0919 - Class L-7 School of Engineering and Architecture Programme Director Prof. MONTANARI ALBERTO

Created in collaboration with Teaching and Learning Administrative Area (AFORM - Area della Formazione) - Quality Assurance Unit

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WHAT IS THE STUDY PROGRAMME REPORT?

What is the Study Programme Report?

The Study Programme Report provides updated information which is important for the purposes of Quality Assurance and is published annually by the University of Bologna.

The main aspects of the teaching programme are described in detail, with a view to assuring the principle of transparency and promoting self-assessment and continuous improvement processes.

The document provides a concrete overview of the features and results of the Study Programme for students, families, employers and so on.

For example, regarding the current issue of employment, it describes the learning outcomes and career opportunities; it also includes statistics on the percentage of employed graduates (D.4. Employment situation). The document is organised into five sections and a glossary:

A. Presentation and prospects

Key information on the Study Programme, including the expected learning outcomes, career opportunities and further studies.

B. Teaching and Learning

The updated course structure diagram with the full titles and listings of the course units and the latest published lecture timetable.

C. Resources and services

The list of teaching staff and their relative curricula, the offices (secretariats), services (work placements) and infrastructures (libraries, laboratories) available to students.

D. The Study Programme in Figures

Key data shows how many students are enrolled, how many have been assigned additional learning requirements, how many drop out after the first year, how many graduate in line with the programme schedule, the opinions of attending and graduating students on the teaching programmes and information concerning graduate employment.

E. Find out more: the quality of your Study Programme

How the quality system applied to your Study Programme works. The quality system of your Study Programme is a set of processes and responsibilities adopted to guarantee the quality of all Study Programmes at the University of Bologna.

NOTES:

- Reports are available for all Study Programmes for which it is possible to enrol in the first year in academic year 2012/2013: the information and data provided is as updated as possible.
- Sections A, B and C provide data for the academic year 2012/2013.
- Section D presents data regarding the Study Programmes in the last three academic years.
- The information and data were taken from the University databases and the reports published by the Statistical Observatory of the University of Bologna and AlmaLaurea, and are updated to **15 June 2012**.

A. PRESENTATION AND PROSPECTS

This section presents the key information concerning the Study Programme, including the expected learning outcomes, career opportunities and further studies, updated to the academic year 2013/2014.

A.1. PRESENTATION

This paragraph provides information on the specific learning outcomes of the Study Programme and the curriculum.

The degree in Civil Engineering aims specifically to form professionals qualified to work in technical or expert organisational roles in areas that require knowledge of the operative-methodological methodologies of basic sciences and engineering, focusing especially on the area of civil engineering, but without neglecting more general aspects.

The degree programme aims to form highly-qualified professionals, much needed at both a regional and national level. The academic programme enables graduates in Civil Engineering to work in areas that require expert organisational management skills for projects and for designing works that are based on recurrent models and the ability to manage and monitor regional systems, as well as the ability to work with others on the design and monitor the carrying out of more complex works.

These objectives are developed throughout an academic programme that provides, firstly, a solid background in physics and mathematics, as is necessary to acquire the methods of analysis and methodological procedures that are typical of the scientific area, integrated and completed with more specific working skills. Subsequently, the programme tackles the core curriculum subject areas of Civil Engineering that provide fundamental knowledge of the principles, methods and tools for the design, building, management and monitoring of civil building works, hydraulic projects, infrastructures, transport systems, work projects on the territory and urban and extra-urban surveys.

In particular, the degree programme concentrates on these specific learning outcomes by providing the following fundamental skills: - The principles, methodologies and tools for the modeling and calculation of structures, as well as criteria for designing structural elements and structures of medium complexity in reinforced concrete and steel, through the use of recurrent models;

- The principles, methodologies and tools for the calculation of project variables and the design of hydraulic works of medium complexity in an urban and extra-urban context, through the application of recurrent and consolidated methods of calculation.

- The criteria and methods for the geometric design of road infrastructures and their safety, management and building, as well as the basic notions for the design of elementary structural elements (supporting walls, flooring) and for the choice of building materials.

- Engineering of transport systems (collective urban transport, railways, individual road transport), focusing particularly on their design and management, with reference also to transport supply and demand.

- Survey Engineering and its criteria, problems and methodologies, the control, supervision and representation of structures of an area, as well as the basic methods for processing data related to plants and topographic surveys of medium complexity at different scales and sizes.

- The principles regarding the physical-mechanical characterisation of territory and the main experimental methodologies for determining the relative parameters.

- The methods for conducting experimental tests of medium complexity and the interpretation of data in various areas of Civil Engineering.

The academic programme leaves students suitable space to work independently by doing practical activities and simple project work which enable them to develop adequate skills for working in the area of the design of works of medium complexity using recurrent and consolidated methods of calculation.

A.2. ADMISSION REQUIREMENTS

This paragraph provides information on the knowledge required for admission to the Study Programme.

This information is not available in English at this time.

A.3. LEARNING OUTCOMES

This paragraph provides information on the knowledge and skills students will have acquired by the end of the Programme.

KNOWLEDGE AND UNDERSTANDING ABILITY:

Graduates will have adequate knowledge of the methodological-operative aspects of basic sciences (mathematical analysis, geometry, physics, rational mechanics, chemistry, computer science) and will be able to use this knowledge to study these sciences in depth in the area of civil engineering, focusing particularly on the science and techniques of building, hydraulics and hydraulic constructions, infrastructures, transport systems, geotechnics and surveying. The skills acquired enable students to interpret, critically analyse and resolve problems related to civil engineering.

The knowledge and understanding abilities listed above are developed through the course units organised in the areas of "Mathematics, Computer Science and Statistics", "Physics and Chemistry", "Civil engineering ", "Environment and Territory", "Safety, Civil Defense and Environmental and Territorial Engineering".

The teaching methods used include participation in lectures, practical activities and seminars, supervised and independent home study. Assessment is accomplished mainly by means of tests, written and oral examinations and laboratory exercises to which a pass/fail mark is given.

ABILITY TO APPLY KNOWLEDGE AND TO UNDERSTAND:

Graduates will have fundamental knowledge of principles, methodologies and tools for the modeling and calculation of structures, as well as criteria for designing structural elements and structures of medium complexity in reinforced concrete and steel, through the use of recurrent models.

They will know the principles, methodologies and tools for the calculation of project variables and the design of hydraulic works of medium complexity in an urban and extra-urban context, through the application of recurrent and consolidated methods of calculation. They will have fundamental knowledge for the geometric design of road infrastructures and their safety, management and building, as well as the basic notions of the design of elementary structural elements (supporting walls, flooring) and for the choice of building materials.

They will have fundamental knowledge on analysis methods for supply and demand of transport for design and management of transport systems: collective urban transport, railways, individual road transport.

They will have fundamental knowledge on Survey Engineering and its criteria, problems and methodologies for the control, monitoring and representation of structures and an area.

They will be able to apply basic methods for processing data related to plants and topographic surveys of medium complexity at different scales and sizes.

They will have fundamental knowledge of the principles regarding the physical-mechanical characterisation of territories and the main experimental methodologies for determining the relative parameters.

They will be able to participate in the conducting of experiments of medium complexity in various areas of civil engineering and interpret data critically.

The achievement of the ability to apply knowledge and to understand as set out above is accomplished through the critical study of set texts for home study, research and application case studies demonstrated by teaching staff, as well as numerical exercises and practical laboratory or computer activities, bibliographical and field research, as well as project work, especially those provided for in the core curriculum course units, and in the preparation of the final paper. Assessment (written and oral exams, reports, practical activities, problem-solving) includes the performing of specific tasks in which students demonstrate command over tools, methodologies and judgement skills.

JUDGEMENT SKILLS:

Graduates will be able to identify, formulate and resolve problems of medium complexity linked to the design of structures and infrastructures, the building, management and monitoring of civil building works, hydraulic works, infrastructures, transport systems and surveying.

They will be able to keep up to date on methods, techniques and tools in the area of civil engineering in general.

The will be able to find, consult and interpret the main technical literature and the national, European and international legislation in the area. Judgement skills are developed particularly during practical activities, seminars, and the preparation of written assignments and during the work assigned by the supervising professor in preparation of the final paper. Assessment is accomplished through evaluation of students' maturity demonstrated in examinations and during the work in preparation of the final paper.

COMMUNICATION SKILLS:

Graduates will be able to communicate effectively, both orally and in writing, not only in Italian but also in English; they will be able to draft technical reports on projects independently and interpret reports written by other experts.

They will work well within a team of experts working on a project of civil engineering.

They will be able to collect, filter and interpret data, and formulate an independent opinion on the technical importance. In addition, they will be able to effectively communicate these data, and information, ideas and solutions to a specialist and non-specialist audience. These written and oral communication skills are developed particularly during seminars, practical activities and, in general, during the course units that require the preparation of reports and written assignments and their oral presentation. Communication skills are also developed during the writing of the final paper and its discussion. The test for English completes the development process of the required communication skills.

LEARNING SKILLS:

Graduates will have the learning skills necessary to keep up to date on methods, techniques and tools in the field of civil engineering, related to the design of structures and infrastructures, the building, management and control of civil building works, hydraulic works, infrastructures, transport systems and surveying.

Lastly, they will have the required learning skills to enable them to undertake further studies (a second cycle degree programme or Level I professional Master's degree) and update and improve their training continuously.

The learning skills listed above are developed in the course units of all the subject areas in the degree programme, especially those that are partly completed independently. The specific teaching methods used include tutorials. Assessment is accomplished as part of all the exams of the degree programme.

A.4. CAREER OPPORTUNITIES

This paragraph provides information on the occupational profile, functions and fields of employment available to graduates of this Programme.

JUNIOR STRUCTURAL ENGINEER

Main functions performed:

For structures of medium complexity that reproduce recurrent models, creating structures using the correct calculation models, drafting analysis of loads and calculating stress, sizing structural elements, creating graphic representations and calculation reports, in addition, collaborating in the design of the overall structure as well as the supervision of its actual building (Works manager), identifying any more complex problems to be dealt with by the specialist structural engineer and lastly, conducting experiments and critically interpreting the results.

JUNIOR HYDRAULIC ENGINEER

Main functions performed:

For hydraulic works of medium importance and complexity, estimating the relative variables of the project, applying consolidated calculation models and creating the graphic representations necessary for its design, in addition, organising the work site, in the area of Management of the Works, collaborating in the design of more complex works for which they are able to identify the extra experts necessary for the correct completion of the project.

JUNIOR ENGINEER IN THE FIELD OF INFRASTRUCTURES AND TRANSPORT

Main functions performed:

For structures of medium complexity, collaborating in the design, planning and managing controls during the building phase; for the planning and management of transport systems, analysing the demand and supply of transport; in addition, participating in the planning and management of transport systems: collective urban transport, railways, individual road transport, with knowledge of the technical road legislation, the human factor and road safety, ability to independently analyse the problems related to road-building materials and collaborating with the person in charge during the design and building phases of road infrastructures, with rigorous and systematic knowledge of transport systems both within the context of public and private professional offices. JUNIOR SURVEYING ENGINEER

Main functions performed:

applying operative methodologies and basic surveying models, using topographic and geomatic, land or satellite, instruments for the surveying, control and monitoring of structures and territory, performing basic processing of topographic and mapping data derived from different types of measurements, collaborating with other professionals, both in the public and private sector, in the management and representation of the territory and the works that are part of it.

Career opportunities:

- Junior Engineer employed by Public Institutes and Administrations:

technical role in Local government offices (Municipalities, Provinces, Regions, Mountain Communities) or in national offices (Motorway companies, Italian Roads Department, etc.) in the various fields of civil engineering, such as planning, management and control of civil building works and hydraulic works, infrastructures and transport systems and works on the territory, as well as management and representation of the territory and works that are part of it.

- Junior Engineer in firms or corporations:

technical role in construction, in charge of building sites for public and private building, as well as the construction of infrastructures, in charge of monitoring production and quality in firms that produce prefabricated structural and non-structural elements, technical role in firms or corporations that work in urban and extra-urban territory and require technical-operative management skills for projects, the design of works that reproduce recurrent models and management and monitoring skills for territorial systems.

- Freelance Junior Engineer:

On passing the state examination in accordance with existing legislation, graduates in Civil engineering may enroll in Section B of the professional Association of Engineers and practice freelance, possibly, therefore, design simple projects that reproduce recurrent models and assist in the designing of more complex projects, possibly also following the building of civil construction works and hydraulic works, as well as infrastructures, as Works Manager. As a freelance professional, possibly performing some of the jobs listed above as an external consultant to local government and government firms or private firms, or working directly for private clients. The degree programme project has been submitted to selected external stakeholders in order to receive their opinions and feedbacks on the learning outcomes and the professional profiles.

A.5. OPINION OF SOCIAL PARTNERS AND POTENTIAL EMPLOYERS

This paragraph describes the outcome of the consultation with the representative employment and trade organisations.

This information is not available in English at this time.

A.6. FURTHER STUDIES

It gives access to second cycle studies (Master's degrees) and to professional master's programmes.

B. TEACHING AND LEARNING

This section describes the updated course structure diagram (for academic year 2013/2014), with the full titles and listings of the course units and the latest published lecture timetable.

B.1. COURSE STRUCTURE DIAGRAM

The link takes you to the Study Programme course structure diagrams. You can also access to each course unit content.

• Study plan: all course units in the programme

B.2. CALENDAR AND LECTURE TIMETABLE

The links take you to the teaching calendar (exam session and final examination session) and the lecture timetable (in Italian).

- Lecture timetable
- Exam sessions
- Final examination sessions

Timellini, Giorgio

Ubertini, Francesco

Zanuttigh, Barbara

de Miranda, Stefano

Toth, Elena

Vittuari, Luca

C. RESOURCES AND SERVICES

This section provides a list of teaching staff and their relative curricula and and description of the services available to students for the academic year 2013/2014.

Margiotta, Annarita Mochi, Giovanni

Muracchini, Augusto

Nucci, Carlo Alberto

Ribani, Pier Luigi

Rupi, Federico Sioli, Maximiliano

Ruggeri, Tommaso

C.1. TEACHERS

The paragraph lists the lecturers who teach in the Study Programme: from here you can access the personal web pages of each one. Information updated to 28 May 2013 (in Italian).

Permanent teaching staff:

Abenda, Simonetta	Fraboni, Beatrice
Barbaresi, Luca	Galli, Domenico
Benedetti, Andrea	Gottardi, Guido
Bignozzi, Maria	Grammatico, Cataldo
Colle, Renato	Gualandri, Luciano
Di Federico, Vittorio	Landuzzi, Alberto
Dondi, Giulio	Lotti, Nadia
Ferrari, Fausto	Mantecchini, Luca

Contract teaching staff:

Venturi, Luca Virgilio, Giovanni

C.2. STUDENT SERVICES: OFFICES

C.2.1. FUTURE STUDENTS

The link take you to the webpage which provides specific information about the offices and the services for the future students (in Italian).

• Future students

C.2.2. ENROLLED STUDENTS

The link take you to the webpage with the information on the offices and the services for the enrolled students (in Italian).

Enrolled students

C.2.3. INTERNATIONAL STUDENTS

The link take you to the webpage with the information on the offices and the services for the international students (in Italian).

• International students

C.2.4. GRADUATES

The link take you to the webpage with the information on the offices and the services for the graduates (in Italian).

• Graduates

D. THE STUDY PROGRAMME IN FIGURES

Information on students' starting their university careers, how many students are in line with the regular programme, opinions of students and graduates on the teaching programmes and information concerning graduate employment.

This section provides the data of the last academic years for the Study Programme (SP) and a comparison with similar Study Programmes. The University of Bologna has divided its Study Programmes into four groups:

- BIOMEDICAL group: Study Programmes of the Schools of Pharmacy, Biotechnology and Sport Science; Medicine; Agriculture and Veterinary Medicine
- SCIENTIFIC-TECHNOLOGICAL group: Study Programmes of the Schools of Engineering and Architecture; Sciences
- SOCIAL SCIENCES group: Study Programmes of the Schools of Economics, Management, and Statistics; Law, Political Sciences
- HUMANITIES group: Study Programmes of the Schools of Arts, Humanities, and Cultural Heritage; Foreign Languages and Literatures, Interpreting and Translation; Psychology and Education

The section presents the results of the Study Programme for the last three academic years.

Main data shows how many students enrolled, the number of students assigned OFA, how many drop out after the first year, how many graduate in line with the programme schedule, the opinions of attending and graduating students on the teaching programmes and information concerning graduate employment. The information and data presented in this section, updated to 28 May 2013, were taken from University databases and AlmaLaurea.

Study Programmes may be subject to degree programme system modifications from one academic year to the next, and the data provided in this section may refer to a programme with a slightly different system to the one currently running (such as programme title, course structure diagram and list of lecturers). However, indicatively the data presents the general trend of the Study Programme over the past three years.

Most of the Study Programmes running at the University of Bologna have been reformed in compliance with DM 270/04, most of them from the academic year 2008/2009. In the reports provided for these Programmes, paragraph D.5. refers to the Study Programmes as they were presented prior to the reform.

D.1. STUDENTS STARTING THEIR UNIVERSITY CAREERS

Characteristics of incoming students at the beginning of their university careers. Tables and graphs provide information on the number of registered students, focusing on the characteristics of the students, results of any entrance tests and the students assigned any additional learning requirements.

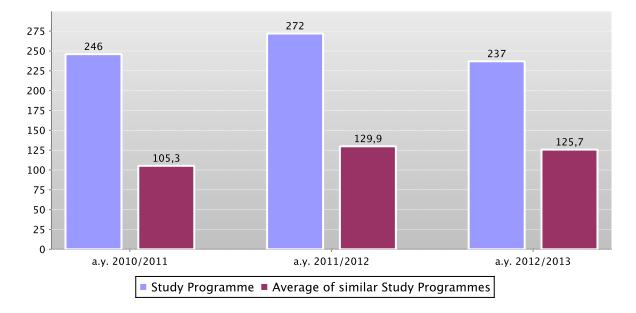
D.1.1. ENROLMENTS AND REGISTRATIONS

The **graph** shows the number of students enrolled in the 1st year compared with the average of similar Study Programmes (which belong to the same group).

In addition, the table shows the total number of registered students and the total number of enrolled students.

Data of the Study Programme is compared with the average of the Study Programmes of average of similar Study Programmes (which belong to the same group) for the indicated academic years.

First year enrolments



	a.	y. 2010/201	11	a.	y. 2011/201	12	a.y. 2012/2013		
	Registered students	N. first year enrolments	Total N. enrolled students	Registered students	N. first year enrolments	Total N. enrolled students	Registered students	N. first year enrolments	Total N. enrolled students
Study Programme	227	246	562	250	272	695	237	237	749
Average of similar Study Programmes	97,8	105,3	152,7	118,6	129,9	161,1	113	125,7	160,1

D.1.2. ADDITIONAL DATA ON STUDENTS' STARTING THEIR UNIVERSITY CAREERS

D.1.2.1. CANDIDATES REGISTERED FOR THE ENTRANCE EXAM

In academic year 2012/2013 access to this Study Programme was not restricted.

D.1.2.2. INCOMING STUDENTS

Geographic origin, type of high school certificate, age and gender of students.

Data shows a homogeneus group of students (cohort) which started together their academic career. Students which have passed to an other Study Programme, transferred from an other university, or registered to a 2nd degree are not included.

The **tables** show the number, geographic origin, gender, age, type and grade of high school certificate of students enrolling in the degree programme.

Data of the Study Programme is compared with the average of the Study Programmes of average of similar Study Programmes (which belong to the same group) for the indicated academic years.

			Geo	ographic or	igin		Gender		Average age of registered students			
		Registered students	Students coming from the province of the Study Programme site	Students coming from other provinces where Unibo has a site	Students coming from other provinces of Emilia Romagna region	Students coming from other Italian regions	Students coming from abroad	М	F	19 or less	20 - 24	25 or more
	Study Programme	227	40,5%	14,5%	10,1%	32,6%	2,2%	63,0%	37,0%	89,0%	10,6%	0,4%
Students 2010/2011	Average of similar Study Programmes	97,8	34,6%	20,3%	7,6%	35,2%	2,3%	69,7%	30,3%	81,6%	16,1%	2,2%
	Study Programme	250	37,6%	10,0%	10,4%	40,0%	2,0%	59,2%	40,8%	81,2%	17,6%	1,2%
Students 2011/2012	Average of similar Study Programmes	118,6	33,4%	19,0%	7,8%	37,7%	2,2%	65,1%	34,9%	79,5%	18,1%	2,4%
	Study Programme	237	40,1%	18,6%	10,5%	27,0%	3,8%	63,3%	36,7%	86,5%	11,4%	2,1%
Students 2012/2013	Average of similar Study Programmes	113	30,9%	20,0%	7,9%	38,8%	2,4%	65,6%	34,4%	80,5%	17,3%	2,2%

			High	school cert	tificate			Grade of H	ligh school	
		Vocational schools	Technical Colleges	High school specializing in education and in psycho-pedagogical science	High schools specializing in classical studies, modern languages, science education	Other Italian or foreign high schools	Grade ranging from 60 to 69	Grade ranging from 70 to 79	Grade ranging from 80 to 89	Grade ranging from 90 to 100
	Study Programme	0,4%	31,3%	0,9%	59,5%	7,9%	20,3%	26,9%	26,4%	24,7%
Students 2010/2011	Average of similar Study Programmes	2,9%	29,3%	0,9%	60,8%	6,0%	19,6%	27,7%	25,0%	26,4%
	Study Programme	1,2%	28,8%	1,2%	60,4%	8,4%	20,8%	26,0%	24,4%	24,0%
Students 2011/2012	Average of similar Study Programmes	2,7%	27,9%	2,0%	61,1%	6,3%	19,6%	26,4%	24,2%	27,2%
Students 2012/2013	Study Programme	0,4%	35,0%	0,8%	57,0%	6,8%	13,9%	31,2%	28,7%	21,9%
	Average of similar Study Programmes	2,5%	27,3%	2,0%	62,3%	5,9%	17,5%	26,6%	26,5%	24,9%

D.1.2.3. ADDITIONAL LEARNING REQUIREMENTS

Students on the programme assigned additional learning requirements (OFA). OFA are learning requirements assigned to enrolled students who have not demonstrated the full possession of the entrance requirements. The assessment methods of students' initial preparation and the fulfilment of the OFA are described in the Study Programme Regulations, and may change each year. Students not completing the additional learning requirements are obliged to re-enrol in year 1 as repeating students.

The **table** shows the number of registered students, the number of students assigned OFA, the number who fulfilled them, the percentage of students assigned the OFA compared to the number of enrolled students and the percentage fulfilling the OFA compared to those assigned them.

	Registered students (a)	Students assigned OFA (b)	Students who fulfilled OFA (c)	% of students assigned OFA compared to the number of enrolled students (b/a)	% of students fulfilling the OFA compared to number of students assigned (c/b)
Students 2010/2011	227	125	102	55,1%	81,6%
Students 2011/2012	250	141	118	56,4%	83,7%
Students 2012/2013	237	139			

*Note: At the time of publication of this report the number of students fulfilling the OFA can be measured for a.y. 2009/2010 and a.y. 2010/2011 only.

D.2. REGULARITY OF STUDIES

Insight into the regularity with which the students pass their exams.

Graphs and tables provide information on the number of students who leave the programme after the first year and the number of regular graduates, focusing on the number of credits obtained at the end of the first year, on the exams passed and average grade achieved for each course unit.

D.2.1. STUDENTS LEAVING THE PROGRAMME BETWEEN YEARS 1 AND 2

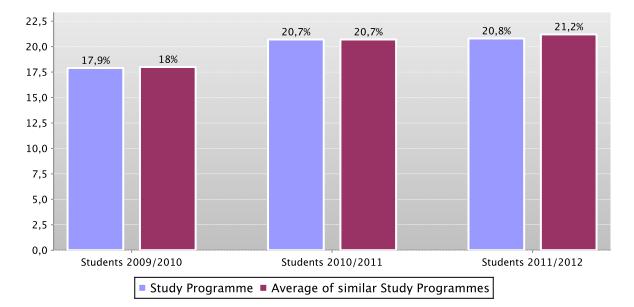
Here the number of students leaving the Study Programme is shown.

The **graph** shows the percentage of students who leave the programme after the first year compared to the average of similar Study Programmes (belonging to the same group).

The **table** shows the registered students, the percentage of students leaving the programme who pass to a different Study Programme in the same university, transfer to another university or withdraw from studies, as well as the enrolled repeating students and those enrolled in the second year.

The Study Programme data is compared with the average of similar Study Programmes of (which belong to the same group), for students registered in the indicated academic years.

Percentage of withdrawals between years 1 and 2



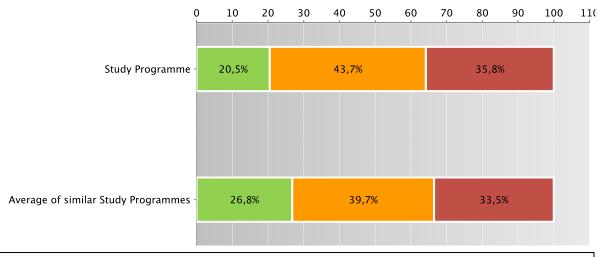
		Registered students	% withdrawals	% passages and transfers	% repeating students	Students enrolled in the second year
	Study Programme	190	17,9%	13,2%	4,7%	122
Students 2009/2010	Average of similar Study Programmes	86,5	18,0%	10,4%	2,3%	59,9
	Study Programme	227	20,7%	14,5%	2,6%	141
Students 2010/2011	Average of similar Study Programmes	97,8	20,7%	12,9%	2,8%	62,2
Students 2011/2012	Study Programme	250	20,8%	10,4%	0,8%	170
	Average of similar Study Programmes	118,6	21,2%	13,9%	2,0%	74,7

D.2.2. REGULAR GRADUATES

Here you will find information on regular graduates, on how many students, at the end of the regular programme duration, left the programme and how many are still enrolled but not aligned to the exam schedule.

The **graph** and the **table** show the situation concerning registered students for the indicated academic year, at the end of the regular duration of the Study Programme, highlighting the percentage of regular graduates, the number of students still enrolled (not aligned to the exam schedule and repeating students), students who have left the programme (including passages, transfers and withdrawals). The Study Programme data is compared with the average of similar Study Programmes (which belong to the same group) for students registered in the indicated academic years.

Situation of students 2009/2010 at the end of regular duration of the study programme



Graduates aligned with the exam schedule
Passages transfers and withdrawals
Students still enrolled and not yet graduated

			Regular graduates		Regular graduates Passages transfers and withdrawals			Students still enrolled and not yet graduated		
		Registered students	N.	%	N.	%	N.	%		
	Study Programme	204	36	17,6%	88	43,1%	80	39,2%		
Students 2008/2009	Average of similar Study Programmes	77,1	19,8	25,7%	30,5	39,6%	26,8	34,8%		
	Study Programme	190	39	20,5%	83	43,7%	68	35,8%		
Students 2009/2010	Average of similar Study Programmes	86,5	23,2	26,8%	34,4	39,7%	29	33,5%		

See data of previous academic years – Study Programme D.M. 509/99 Civil Engineering (code 0045) paragraph D.5.2.2.

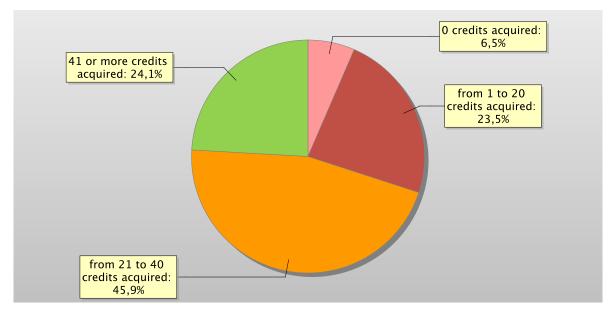
D.2.3. ADDITIONAL DATA ON REGULARITY OF STUDIES

D.2.3.1. CREDITS OBTAINED BY STUDENTS IN THE 1ST YEAR

This offers an insight into how regularly students pass their exams.

The **graph** shows the distribution of the students according to the number of credits obtained at the end of the first year. In addition, the **table** shows the number of students registered at the second year and average credits obtained during the first year. The Study Programme data is compared with the average of similar Study Programmes (which belong to the same group) for the indicated academic years.

Distribution of the students in 2011/2012 according to the number of credits obtained at the end of the first year*



				% studer	nts with *		
		Students enrolled in the 2nd year	0 credits acquired	from 1 to 20 credits acquired	from 21 to 40 credits acquired	41 or more credits acquired	Average credits per student
	Study Programme	122	4,1%	21,3%	40,2%	34,4%	30,8
Students 2009/2010	Average of similar Study Programmes	59,9	4,3%	17,5%	40,5%	37,7%	33,3
	Study Programme	141	5,7%	27,0%	46,1%	21,3%	27,5
Students 2010/2011	Average of similar Study Programmes	62,2	5,1%	16,9%	40,1%	37,9%	33,1
	Study Programme	170	6,5%	23,5%	45,9%	24,1%	28,9
Students 2011/2012	Average of similar Study Programmes	74,7	5,1%	16,3%	39,0%	39,7%	33,7

*Note: by convention, credits are considered to be obtained by students by 31st October of the year following the year of enrolment.

D.2.3.2. EXAMS PASSED AND AVERAGE GRADE

The **table** shows number of exams passed and average grade achieved for each course unit in the calendar year 2011. Marks for the exams passed are expressed out of thirty.

The data refers to the course unit code and therefore includes the various branches of the programme divided into channels or subgroups, divided by letter.

It considers all subjects for which a grade is assigned, and therefore excludes all those to which a pass/fail score is allocated.

Data of the Study Programme D.M. 270/04 Ingegneria civile (code 0919)

	N. of exams passed	Average grade *
28622 ANALISI MATEMATICA T-A	11	21
28626 FISICA GENERALE T-A	201	23,6
28628 FISICA GENERALE T-B	122	24,2
29228 GEOMETRIA E ALGEBRA T	112	23,4
29690 MECCANICA RAZIONALE T	96	22,3
30978 SCIENZA DELLE COSTRUZIONI T	132	24,9
31011 CHIMICA E TECNOLOGIA DEI MATERIALI T C.I.	61	23
31036 IDRAULICA T	113	25,4
31040 PIANIFICAZIONE TERRITORIALE T	99	26,2
31052 ARCHITETTURA TECNICA T	24	23,5
31426 GEOLOGIA T	152	25,1
31444 TOPOGRAFIA T	96	25,6
31448 FONDAMENTI DI TECNICA DELLE COSTRUZIONI T	41	23,2
31471 INGEGNERIA SANITARIA AMBIENTALE T	6	27,5
31586 COMPLEMENTI DI ANALISI MATEMATICA ED ELEMENTI DI CALCOLO DELLE PROBABILITÀ T	86	21,9
31593 FONDAMENTI DI INFRASTRUTTURE IDRAULICHE T	99	24,9
31596 FONDAMENTI DI GEOTECNICA T	118	24
31598 TECNICA ED ECONOMIA DEI TRASPORTI T	112	26,6
31599 COSTRUZIONE DI STRADE, FERROVIE ED AEROPORTI T	115	27,5
31606 FISICA TECNICA AMBIENTALE T C.I.	69	22
31613 TERMOFISICA DELLE COSTRUZIONI T	2	
31614 ACUSTICA APPLICATA E ILLUMINOTECNICA T	2	
31615 LABORATORIO DI DISEGNO E CAD T	138	25,3
31616 ECONOMIA ED ESTIMO T	1	
31617 ELETTROTECNICA E SICUREZZA ELETTRICA T C.I.	24	27,4
31618 ELEMENTI DI ELETTROTECNICA T	2	
31619 ELEMENTI DI IMPIANTI E SICUREZZA ELETTRICA T	3	
34722 COSTRUZIONI IDRAULICHE M	1	
35348 OPERE GEOTECNICHE M	3	
35388 TEORIA E TECNICA DELLA CIRCOLAZIONE M	2	
37643 ANALISI MATEMATICA T	132	22,8
65601 CHIMICA E TECNOLOGIA DEI MATERIALI T	121	24
66910 METODI NUMERICI PER L'INGEGNERIA CIVILE M	2	
66912 PROGETTAZIONE AVANZATA DI INFRASTRUTTURE VIARIE M	2	
67368 ARCHITETTURA TECNICA T (6 CFU)	- 80	23,9

	assed	*
	N. of exams passed	Average grade
67372 FONDAMENTI DI TECNICA DELLE COSTRUZIONI T (6 CFU)	27	26,6
71339 LABORATORIO DI DISEGNO E CAD T (I)	1	

* Note: no average grade is given if the number of exams passed is less than or equal to 5.

D.3. OPINIONS OF GRADUATES AND ATTENDING STUDENTS

Opinions of graduates on the Study Programme.

Tables and graphs provide information on the number of graduates who expressed positive opinions on the Study Programme, focusing on opinions expressed by attending students on course units.

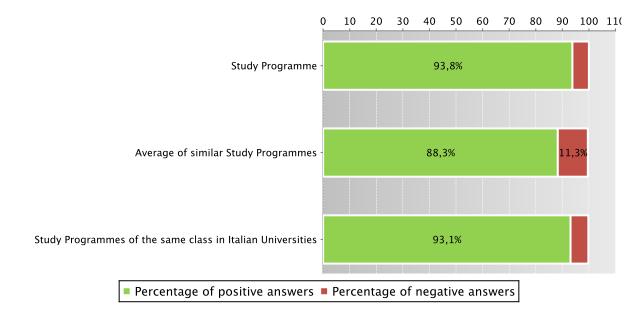
D.3.1. OPINION OF GRADUATES

The graph shows the percentage of graduates (AlmaLaurea survey) who responded positively to the question: "Are you generally satisfied with the Study Programme".

In addition, the **table** shows the percentage of students who answered "Yes, to the same programme at the university" to the question "Would you register again to the university?".

The Study Programme data is compared with the average of similar Study Programmes (which belong to the same group), and the average of Study Programmes of the same class of other Italian universities for the graduates of the indicated years.

Graduates in 2012 who responded positively to the question: "Are you generally satisfied with this Study Programme?" *Data of the Study Programme D.M. 270/04 Ingegneria civile (code 0919)*



Data of the Study Programme D.M. 270/04 Ingegneria civile (code 0919)

		N. graduates	Completed Questionnaires	% of positive answers to the question: "Are you generally satisfied with this Study Programme?"	% of answers "yes to the same Programme in the same University" to the question "Would you register again to the University"
	Study Programme	29	29	89,7%	89,7%
2011	Average of similar Study Programmes	23,7	22,8	88,9%	73,5%
	Study Programmes of the same class in Italian Universities	373	365	94,5%	80,8%
	Study Programme	65	65	93,8%	75,4%
2012	Average of similar Study Programmes	24,4	23,9	88,3%	72,3%
	Study Programmes of the same class in Italian Universities	1050	988	93,1%	81,0%

Symbols:

(*) The opinions of the Study Programmes with less than 5 graduates are not shown.

Further information on Graduates' Profile Report.

See data of previous academic years - Study Programme D.M. 509/99 Civil Engineering (code 0045) paragraph D.5.3.1.

D.3.2 ADDITIONAL DATA ON OPINIONS OF STUDENTS

D.3.2.1. OPINION OF ATTENDING STUDENTS

The **graph** shows the percentage of attending students who responded positively to the question in the questionnaire: "Are you generally satisfied with this course unit?" in academic year 2011/2012.

The **table** also shows the number of completed questionnaires.

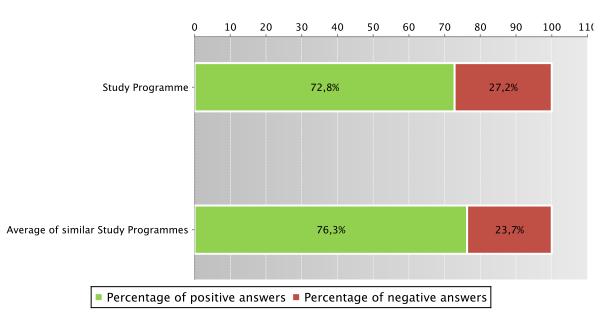
The Study Programme data is compared with the average of similar Study Programmes (which belong to the same group), for the indicated academic years.

The data concerning the students' opinion refers to the opinions of those attending lessons, whether they are enrolled in the current programme or a Study Programme running under pre-reform regulations (under D.M. 509).

For the University of Bologna the survey and subsequently analysis of the opinions of students attending the course is cared by Academic Affairs Division - Quality Assurance Department and Control and Finance Division - Support Planning and Evaluation Department. The overall results and the methods of collection and analysis are described in the document published online on the Statistical Observatory of the University of Bologna (see the note in the glossary).

Students who responded positively to the question: "Are you generally satisfied with this course unit?" in academic year 2011/2012

Data of the Study Programme D.M. 270/04 Ingegneria civile (code 0919) and of the Study Programme D.M. 509/99 Ingegneria civile (code 0045)



Data of the Study Programme D.M. 270/04 Ingegneria civile (code 0919) and of the Study Programme D.M. 509/99 Ingegneria civile (code 0045)

		Number of completed questionnaires	% of positive answers concerning the general satisfaction with the course unit – Question 19
	Study Programme	1767	74,7%
a.y. 2009/2010	Average of similar Study Programmes	1006,2	75,2%
	Study Programme	1575	69,9%
a.y. 2010/2011	Average of similar Study Programmes	1038	75,4%
	Study Programme	2442	72,8%
a.y. 2011/2012	Average of similar Study Programmes	1243	76,3%

Symbols:

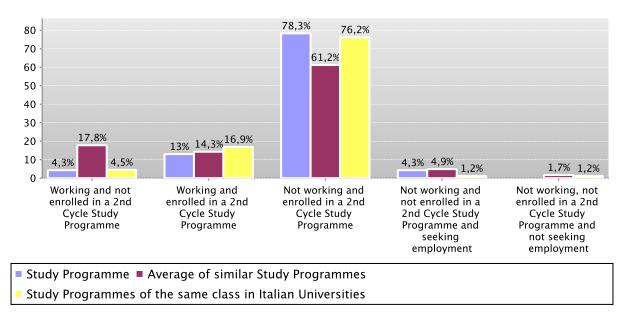
(*) When there is a small number of questionnaires, the percentage of positive opinions on overall satisfaction is not presented. Further information on Rapporto Opinione degli studenti frequentanti sulle attività didattiche (the content is in Italian).

D.4. ENTRY INTO THE WORLD OF WORK

Employment situation of graduates of the Study Programme. Tables and graphs provide information on the employment situation of graduates one year after graduating.

D.4.1. EMPLOYMENT SITUATION

Employment situation of graduates in 2011 one year after graduating



			Em	Employment and education situation (1)					Degree's appropriateness for the job (referred to the graduates who just work) (3	
		N. graduates interviewed	Working and not enrolled in a 2nd Cycle Study Programme	Working and enrolled in a 2nd Cycle Study Programme	Not working and enrolled in a 2nd Cycle Study Programme	Not working, not enrolled in a 2nd Cycle Study Programme and not seeking employment	Not working and not enrolled in a 2nd Cycle Study Programme and seeking employment	Not working, not seeking employment, but following a university programme/traineeship (2)	Effective / very effective	Quite effective
	Study Programme	23	4,3%	13,0%	78,3%		4,3%	69,6%		25,0%
Graduation Year	Average of similar Study Programmes	21,7	17,8%	14,3%	61,2%	1,7%	4,9%	55,2%	33,5%	26,0%
2011	Study Programmes of the same class in Italian Universities	332	4,5%	16,9%	76,2%	1,2%	1,2%	66,3%	21,4%	35,7%

See data of previous academic years - Study Programme D.M. 509/99 Civil Engineering (code 0045) paragraph D.5.4.1.

D.5. INFORMATION ON PRE-REFORM PROGRAMMES (DM 509/99)

D.5.1. STUDENTS STARTING THEIR UNIVERSITY CAREERS

Characteristics of incoming students at the beginning of their university careers. Tables and graphs provide information on the number of registered students, focusing on the characteristics of the students, results of any entrance tests and students assigned additional learning requirements.

D.5.1.1. ENROLMENTS AND REGISTRATIONS

Data of enrolments and registrations of the last three academic years are shown in paragraph D.1.1.

D.5.1.2. ADDITIONAL DATA ON STUDENTS' STARTING THEIR UNIVERSITY CAREERS

D.5.1.2.1. CANDIDATES REGISTERED FOR THE ENTRANCE EXAM

Data of candidates registered for the entrance exam are shown in paragraph D.1.2.1.

D.5.1.2.2. INCOMING STUDENTS

Data of incoming students of the last three academic years are shown in paragraph D.1.2.2.

D.5.2. REGULARITY OF STUDIES

Insight into the regularity with which the students pass their exams. Graphs and tables provide information on the number of students who leave the programme after the first year and the number of regular graduates, focusing on the number of credits obtained at the end of the first year, the number of exams passed and the average grade achieved for each course unit.

D.5.2.1. STUDENTS LEAVING THE PROGRAMME BETWEEN YEARS 1 AND 2

Data of students leaving the Study Programme of the last three academic years are shown in paragraph D.2.1.

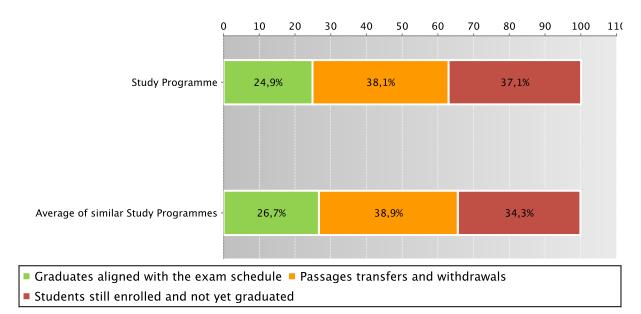
D.5.2.2. REGULAR GRADUATES

Here you will find information on regular graduates, on how many students, at the end of the regular programme duration, left the programme and how many are still enrolled but not aligned to the exam schedule.

The **graph** and the **table** show the situation concerning registered students for the indicated academic year, at the end of the regular duration of the Study Programme, highlighting the percentage of regular graduates, the number of students still enrolled (not aligned to the exam schedule and repeating students), students who have left the programme (including passages, transfers and withdrawals). The Study Programme data is compared with the average of similar Study Programmes (which belong to the same group) for students registered in the indicated academic years.

Situation of students 2007/2008 at the end of regular duration of the study programme

Data of the Study Programme D.M. 509/99 Civil Engineering (code 0045)



Data of the Study Programme D.M. 509/99 Civil Engineering (code 0045)

			Regular graduates		Passages transfers and withdrawals		Students still enrolled and not yet graduated	
		Registered students						
		Reg	N.	%	N.	%	N.	%
	Study Programme	197	49	24,9%	75	38,1%	73	37,1%
Students 2007/2008	Average of similar Study Programmes	72,8	19,5	26,7%	28,4	38,9%	25	34,3%

Go back to D.2.2. Regular graduates

D.5.2.3. ADDITIONAL DATA ON REGULARITY OF STUDIES

D.5.2.3.1. CREDITS OBTAINED BY STUDENTS IN THE 1ST YEAR

Data of credits obtained by students in the 1st year of the last three academic years are shown in paragraph D.2.3.1.

D.5.2.3.2. EXAMS PASSED AND AVERAGE GRADE

Data of exams passed and average grade are shown in paragraph D.2.3.2.

D.5.3. OPINIONS OF ATTENDING STUDENTS AND GRADUATES

Opinions of graduates on the Study Programme.

Tables and graphs provide information on the number of graduates who expressed positive opinions on the Study Programme, focusing on opinions expressed by attending students on course units.

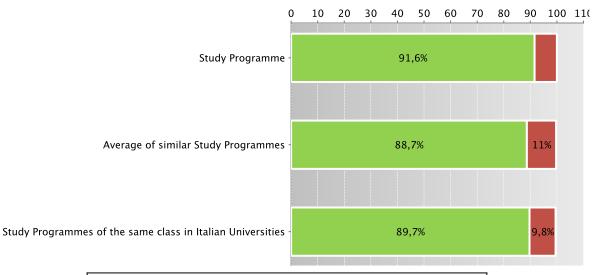
D.5.3.1. OPINION OF GRADUATES

The graph shows the percentage of graduates (AlmaLaurea survey) who responded positively to the question: "Are you generally satisfied with the Study Programme".

In addition, the **table** shows the percentage of students who answered "Yes, to the same programme at the university" to the question "Would you register again to the university?".

The Study Programme data is compared with the average of similar Study Programmes (which belong to the same group), for the indicated years.

Graduates in 2010 who responded positively to the question: "Are you generally satisfied with this Study Programme?" *Data of the Study Programme D.M. 509/99 Ingegneria civile (code 0045)*



Percentage of positive answers Percentage of negative answers

Data of the Study Programme D.M. 509/99 Ingegneria civile (code 0045)

		N. graduates	Completed Questionnaires	% of positive answers to the question: "Are you generally satisfied with this Study Programme?"	% of answers "yes to the same Programme in the same University" to the question "Would you register again to the University"
	Study Programme	158	155	91,6%	78,7%
2010	Average of similar Study Programmes	44,6	43,4	88,7%	72,5%
	Study Programmes of the same class in Italian Universities	2568	2426	89,7%	73,0%

Symbols:

(*) The opinions of the Study Programmes with less than 5 graduates are not shown.

Further information on Graduates' Profile Report.

Go back to D.3.1. Opinion of graduates

D.5.3.2 ADDITIONAL DATA ON OPINIONS OF STUDENTS

D.5.3.2.1. OPINION OF ATTENDING STUDENTS

Data of opinion of attending students of the last three academic years are shown in paragraph D.3.2.1.

D.5.4. ENTRY INTO THE WORLD OF WORK

Employment situation of graduates of the Study Programme. Tables and graphs provide information on the employment situation of graduates one year after graduating.

D.5.4.1. EMPLOYMENT SITUATION

The paragraph shows the employment situation of graduates one year after graduating.

The data is taken from the AlmaLaurea reports on the employment situation of graduates.

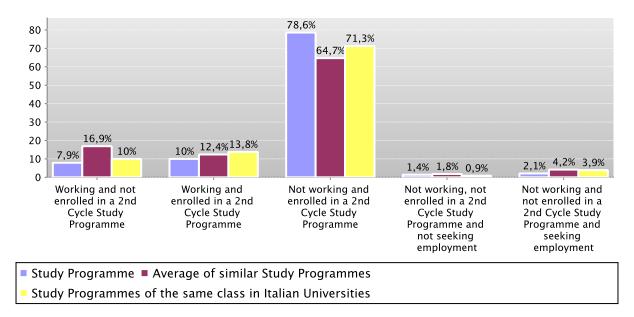
The graph shows who is working, who is not working but has enrolled in a Second Cycle study programme, who is not working and is not seeking employment, who is not working but is seeking employment.

In addition, the **table** shows the number of graduates interviewed, the number involved in internships and traineeships and the appropriateness of their degree to the job.

The Study Programme data is compared with the average of similar Study Programmes (which belong to the same group) and the average of Study Programmes of the same faculty of other Italian universities for the graduates of the indicated years.

Employment situation of graduates in 2010 one year after graduating

Data of the Study Programme D.M. 509/99 Civil Engineering (code 0045)



Data of the S	Study Programme	e D.M. 509/	99 Civil E	noineerino l	(code 0045)
Dura of the S	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	D.1.1.1. 2027	// Citii L	ingineering (10111 0012

			Employment and education situation (1)						Degree's appropriatene the job (refe to the gradu who just work	
		N. graduates interviewed	Working and not enrolled in a 2nd Cycle Study Programme	Working and enrolled in a 2nd Cycle Study Programme	Not working and enrolled in a 2nd Cycle Study Programme	Not working, not enrolled in a 2nd Cycle Study Programme and not seeking employment	Not working and not enrolled in a 2nd Cycle Study Programme and seeking employment	Not working, not seeking employment, but following a university programme/traineeship (2)	Effective / very effective	Quite effective
	Study Programme	157	7,0%	8,9%	81,5%	1,3%	1,3%	78,3%	28,0%	20,0%
Graduation Year	Average of similar Study Programmes	43,1	19,0%	11,8%	62,8%	1,9%	4,5%	58,0%	34,5%	32,8%
2009	Study Programmes of the same class in Italian Universities	2299	9,5%	13,8%	72,1%	1,3%	3,3%	61,2%	30,7%	31,3%
	Study Programme	140	7,9%	10,0%	78,6%	1,4%	2,1%	71,4%	20,8%	25,0%
Graduation Year	Average of similar Study Programmes	40,6	16,9%	12,4%	64,7%	1,8%	4,2%	59,0%	30,8%	34,6%
2010	Study Programmes of the same class in Italian Universities	2390	10,0%	13,8%	71,3%	0,9%	3,9%	58,9%	30,0%	28,2%

Symbols:

(*) The opinions of the Study Programmes with less than 5 graduates are not shown.

Notes on the AlmaLaurea report on the employment situation of graduates

(1) "Employment and education situation": the number of employed graduates is the sum of those working and those working who are also enrolled in a 2nd cycle degree programme. The number of those enrolled in a 2nd cycle degree programme is the sum of those who are working and studying and those who are only studying.

(2) "Number of those who do not work, who are not seeking employment but who are following a university programme/traineeship": the definition includes those who are enrolled in traineeships, PhD degrees, specialisation schools, Italian "master universitari"(first and second level). The presentation of this data complies with article 2 of D.M. 544 of 31st October 2007, as later provided for in Management Decree no. 61 of 10th June 2008 (transparency requirements).

(3) The evaluation of the appropriateness of the degree is obtained by a combination of the requirement of the relative qualification for the job held and the level of usage of the skills learned at university.

Further information on Graduates' Employment report.

Go back to D.4.1. Employment situation

E. FIND OUT MORE: THE QUALITY OF YOUR STUDY PROGRAMME

The University of Bologna has identified its objectives as the personal, cultural and professional growth of students and the improvement of the quality of learning, also in relation to the needs of society (Strategic Plan 2010-2013).

Students, employers and society as a whole, have the right to effective learning for individual and intellectual growth, to develop critical sense and to prepare for the world of work.

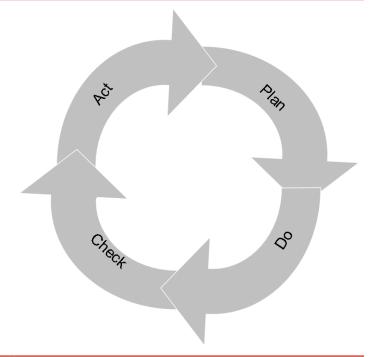
In the Statute and the Strategic Plan 2010-2013 the University of Bologna acknowledges its responsibility in guaranteeing the quality of its study programmes, and for this purpose adopts an "internal quality assurance system".

The Internal Quality Assurance system

The internal quality assurance system is a set of processes and responsibilities adopted to guarantee the quality of Study Programmes at the University of Bologna.

The guarantee of the quality of a Study Programme is the correspondence of the results achieved with the set objectives, in the following phases:

- Plan: defining the objectives
- Do: implementing the planned actions
- Check: checking that the objectives have been achieved
- Act: planning improvement action



This path responds to the expectations of students, guides teaching behaviour and provides indicators for the assessment of results. Self-assessment is based on the analysis of significant data (for example, the number of students graduating in line with the exam schedule, students' opinions and the employment rates of graduates) and highlights strengths and weaknesses in order to reflect on the achieved results, critically consider one's own working methods and take steps for the contributions of everyone with first-hand knowledge of the Study Programme. Improvement is therefore a day to day development, concerning all aspects of teaching: from the lesson timetable to the publication of on-line programmes, from classroom management to exam methods, and the actual design of the Programme.

This is what happens in each phase:

- Planning: the Study Programme is the result of a proposal from the teaching structures and approved by the Academic Bodies.
- Management: Schools, Departments and Study Programmes manage the activities required to ensure teaching. The activities are organised as follows:

What we do	Who does what									
	Professors	Study Programme	Schools	Departments	General Administration					
Teaching calendar, lessons programme and exam schedules			Х							
Management of Financial resources			X	X						
Classroom teaching	X									
Management of classrooms and laboratories			X	Х						
Libraries and study cooms			X	X						
Approval of ndividual study plans		X								
Communication and nformation		X	Х		Academic Affairs Division					
Guidance service		X	X		Academic Affairs Division					
Internships		X	X		Academic Affairs Division					
Administrative services: Student Administration Office					Academic Affairs Division					
Administration services: Degree programme office			X		Academic Affairs Division					
Study grants and oans ad honorem					Academic Affairs Division					
Student mobility: iniversity subsidies ind programmes					International Relations Division					
Mobility: study grants for lissertations abroad			X							
Mobility: authorisations and recognitions		X								
Other students support services		X	Х		X					

• Internal assessment: every Study Programme periodically assesses its own results, evaluating, for example, the number of enrolled students, the number of withdrawing students, student opinions etc.; in this way, the strengths and weaknesses, as well as any implemented improvement actions, are highlighted. This phase is organised as follows:

What we do

Definition, gathering and publication of evaluation data According to the general guidelines of the University and national and international standards, are defined the tools through which should be evaluated the results (indicators). The survey data to be evaluate are published every year on the Report of the Study Program.

Self-Assessment

The Schools and Study Programmes assess the effectiveness of the previously adopted solutions, analyse the progress of their learning activities and draw up proposals for improvement.

Internal audit

The results of the self-assessment process are reviewed in the following phases:

- Analysis: the University Quality Manager analyses the review documents, considering the ability to identify problems, propose solutions and the overall development of the internal quality assurance system.
- Review: The observations on the results obtained and the good practices adopted are examined together with the persons in charge of the Schools and Study Programmes in meetings organised by scientific-disciplinary field. The persons in charge receive the observations and inputs on the areas for development and the actions to be adopted in future to improve results.
- Sharing: the conclusions of the review activities are submitted to the Academic Bodies and the University Evaluation Board.

Who does what

Academic Bodies

Schools and Study Programmes

Quality Manager

Vice Rector for Teaching and Education

Academic Bodies

• **Improvement**: on the basis of the results of the internal audit, the Schools and Study Programmes plan improvement activities, to ensure that the Study Programmes increasingly respond to the needs of society. The cycle then starts over again, with the definition of actions to be implemented, the results of which are in turn verified, in a continuous path that guarantees the quality of education.

F. GLOSSARY TERMS

Additional Learning Requirements

Students enrolling in the first year of a first cycle or single cycle degree and who, following the results of the entrance exams established for each study programme, do not possess the knowledge required for access to the programme, are assigned additional learning requirements (OFA).

The OFA are fulfilled by passing an assessment test defined by the programme.

The non-fulfilment of the requirements by the date set by the Academic Bodies and published on the University Portal will lead to the re-enrolment in the first year of the programme.

AlmaLaurea

AlmaLaurea is an innovative in-line database service of graduates' curriculum vitae (1,620,000 CVs, from 53 Italian universities as of 05/07/2012), which offers a link between graduates, universities and businesses.

Created in 1994 on the initiative of the Statistical Observatory of the University of Bologna, managed by a consortium of Italian universities with the support of the Ministry of Education, University and Research, the purpose AlmaLaurea is to act as a point of contact between businesses and graduates, a reference within universities for anyone (students, businesses, etc...) working in the field of university studies, employment and the condition of young people at different levels.

Average of similar study programmes (belonging to the same group)

Average of the Study Programmes (which belong to the subject group)

Calculated average which refers to all study programmes of the same cycle which belong to the subject group. There are four groups, composed as follows:

- BIOMEDICAL group: Study Programmes of the Schools of Pharmacy, Biotechnology and Sport Science; Medicine; Agriculture and Veterinary Medicine
- SCIENTIFIC-TECHNOLOGICAL group: Study Programmes of the Schools of Engineering and Architecture; Sciences
- SOCIAL SCIENCES group: Study Programmes of the Schools of Economics, Management, and Statistics; Law, Political Sciences
- HUMANITIES group: Study Programmes of the Schools of Arts, Humanities, and Cultural Heritage; Foreign Languages and Literatures, Interpreting and Translation; Psychology and Education

CFU University Learning Credits

University Learning Credits (CFU) were introduced under Italian Ministerial Decree no. 509/99 to comply with European legislation, and are a measurement of the volume of learning, including individual study, required of students; generally 1 CFU corresponds to 25 hours of a student's "overall learning effort".

Class

Degree classes group together study programmes of the same level and with the same key learning outcomes and available learning activities for a given number of credits and in sectors which are identified as indispensable. The features of the classes are set nationally, by Ministerial Decree, and are therefore common to all universities.

Cohort

Cohort refers to a group of students enrolled in the same academic year.

Enrolment status

In terms of enrolment, students may be:

- **Regularly enrolled**: students enrolled for as many or fewer years than the legal duration of the study programme, who do not fall into any of the following categories;
- Not aligned with the exam schedule: students who, without having graduated, have enrolled in all the years of the study programme and which, for programmes with compulsory attendance, have obtained all attendance certificates;
- **Repeating**: students re-enrolling in the same year of a programme again. Starting from academic year 2009-2010, students who have not fulfilled the assigned additional learning requirements within the deadline have to enrol in the 1st year as repeating students.

Entrance exam

Enrolment in a study programme may be free access or restricted access.

For all programmes with restricted access, candidates are required to sit an entrance exam and there are a limited number of places available. The entrance exam is a test which is used to draw up a graded list of candidates; students may enrol in the programme according to their place in the list. The methods of managing the call for applications and the list of candidates, including the methods for filling any unclaimed places, may vary from year to year. The test may be specific to a Degree Programme or may be part of a single exam covering several programmes from the same university or from other universities (during the registration the students should indicate their first choice).

The following definitions apply:

Available places = the number of places laid down in the call for applications to the Study Programme, or determined by subsequent legal provisions; these exclude any additional places reserved according to special provisions of the programme (e.g. for international study programmes, they do not include places for foreign students selected from other universities; for all programmes with restricted access regulated nationally, these do not include the places reserved for transferring students).

Number of candidates for the exam = number of students registered for the exam indicating the study programme as their first choice;

Number of participants in the exam = number of students participating in the exam indicating the study programme as their first choice;

Number of participants in the exam for every available place = number of students participating in the exam who indicated the study programme as their first choice as a ratio of the number of places available on the programme.

First year enrolments

This includes all students enrolled in the first year, including those joining the study programme in its first year through transferrals, as well as those enrolled in the first year but not for the first time (e.g. repeating students).

New Careers

Students who start a new university career (excluding transfers) from year one in a second cycle programme.

Passages and transfers

Passage: when a student applies to move to a different study programme from the one enrolled in the previous year, within the same university.

Transfer: when a student transfers from a study programme in one university to any programme in another university.

Registered students

Students who begin a career in the Italian University System for the first time and who enrol in the first year (i.e. for whom no previous university careers are recorded) of a First Cycle (L509, L) or Single Cycle programme (LSCU, LMCU)

Statistical Observatory of the University of Bologna

The Statistical Observatory was founded in 1997 in order to "provide the university governing bodies with a reliable and timely documentary and monitoring database aiming to promote decision-making processes and planning, particularly of learning activities and other services targeting the student population" (art.1 of the Founding and Operational Regulation). Following the disabling of the Statistical Observatory, as resolved by the Board of Governors on 14 December 2010, from the second semester of academic year 2010-11 the survey and subsequently analysis of the attending students opinion is cared for the University of Bologna by Academic Affairs Division - Quality Assurance Department and Control and Finance Division - Support Planning and Evaluation Department. The overall results and the methods of collection and analysis are described in the document published online on the Statistical Observatory of the University of Bologna.

University DataWarehouse

In information service for the managers of the University of Bologna organisational departments which gathers, integrates and reorganises data from various sources and makes it available for analysis and evaluation for the purposes of planning and decision-making.

Withdrawal

Suspension of studies by students who do not register in the next academic year, or who drop out from the degree programme.