



UNIVERSITÀ  
DI CAMERINO

## School of Science and Technology

Undergraduate Degree Course in **Computer Science**

**Class L-31 – Computer Science**  
***Information Technology* Curriculum**

## University Degree Course Handbook

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**Course time:** 3 years

**ECTS:** 180

**Main teaching building:**

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**Academic Year 2010-2011**

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**University Website:** <http://www.unicam.it>

**School of Science and Technology Website:** <http://sst.unicam.it>

**Degrees in Computer Science Website:** <http://www.cs.unicam.it>

## 2. Presentation

The undergraduate degree course in Computer Science, *Information Technology Curriculum* – encompassing Class L-31 of Degree courses in Sciences and Information Technologies – aims at qualifying a professional computer scientist with a technical and managerial preparation necessary for the quick introduction to the labour market in activities such as industry, finance, private and public sectors. Graduates in computer science have a basic cultural preparation, allowing them to successfully tackle both the progression of technology and of the career towards responsibility roles as well as attending postgraduate courses.

Computer scientists work by using specific theoretical and practical IT skills and apply proper mathematical models and methods for introducing new technologies in several working sectors.

After a first stage, mainly dedicated to the achievement of a solid basic training in IT area and to the acquisition of fundamental knowledge in similar subjects such as mathematics and new technologies law, the degree course includes a second more professionalizing stage oriented to the employment in IT market. In this second stage, the student is engaged in a placement in an enterprise being involved in a project to be developed in a real working environment. The student has a wide choice of vocational activities that can be integrated with its preparation consistently with the subject of the final thesis.

To get the degree, students will have to take 18 exams, be on a 300-hour placement in organizations/companies in national or international areas, where UNICAM has an agreement, and take a final exams, that is the discussion of a thesis on a specific subject

## 3. Learning outcomes and verification modalities

Graduates in computer science from the University of Camerino need to have the following qualifications expressed by higher education descriptors:

<i>Knowledge and understanding</i>	A graduate in computer science can understand, with discernment, the basic contents of several Information and Communication Technology (ICT) sectors. He / she can use them in the context of designing, developing and maintaining of software system, databases and computer networks; he / she has a good knowledge of central areas of informatics: computer programming, computer architecture, databases, programming languages, operating systems, computer networks and software engineering; he /she has a good knowledge of different areas affine to informatics such as logics, statistics and economy; he / she has a background in mathematics, physics and theoretical computer science.
<i>Applying knowledge and understanding</i>	A graduate in computer science can use specification languages, programming language and programming methodologies for the problem solving within ICT; he /she can design, develop and manage software systems, databases and computer networks. he /she has logical – deductive reasoning capabilities to be applied to the solution of algorithmic and programming problems.
<i>Making judgements</i>	A graduate in computer science can assess and choose the right solution strategies to be applied to concrete situations. He /she can recognize the appropriate mathematical tools that support IT skills; he /she has ability of judgments and assessment of medium term innovative Information Technologies.
<i>Communication skills</i>	A graduate in compute science can properly use written and oral English language in addition to Italian, both within its specific competence and for general information communications; he /she can work in teams, to operate with precise autonomy standards and to promptly fit in workplaces.
<i>Learning skills</i>	A graduate in computer science has proclivity to continuous updating his understanding of available IT tools; he /she is able to use the acquired skills to attend additional training courses with precise autonomy standards to continue their own professional training.

## 4. Admission rules and entry requirements (D.M. 270/04)

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Students who have completed the upper-level middle school diploma or equivalent foreign qualification are eligible to be enrolled. In order to allow the students to begin their studies as best as possible, the Italian Ministry of Education and Research imposes to establish preliminary the initial level of knowledge and competences of the students, related to the chosen degree course. All the freshmen have the opportunity to take part to a specific test. If the test is not passed, it does not preclude enrollment in Courses, but does permit an evaluation of the student's preparation in order to place them in the best possible condition for managing with the University courses. In any case the test must be done before attending to the exams of the teaching activities of the degree course.

A further opportunity UNICAM gives is a placement-test for establishing the level of knowledge of the English language. If the result of these tests suggests that a supplementary teaching activity is needed to fill some gap in the preparation, UNICAM will organize specific activities of this kind, called **Corsi di Integrazione**. All the related information (date of the test, modalities,...) will be available at UNICAM website (<http://www.unicam.it>).

### • Entry requirements

The topics of the syllabuses synthetically listed below are assumed to be known by new undergraduate students. Therefore the knowledge of these topics is essential to undertake the degree course in Computer Science, Information Technology Curriculum, in a profitable way.

#### **Syllabus**

##### Numerical structures, arithmetic

Natural numbers: arithmetic operations and properties. Division with remainder. Prime numbers and factorization. Greater common divisor and least common multiple. Numerical fractions: operations and ordering. Relative integers. Relative rational numbers. Representation of numbers as decimal alignment. Intuitive idea of real numbers. Inequalities and related calculus rules. Absolute value. Arithmetic mean and geometric mean. Powers, roots and their properties. Logarithms and their properties.

Elementary algebra, equations, inequalities. Elements of expression and polynomial, use of brackets. Polynomials. Remarkable products. Division with remainder between polynomials. Ruffini's rule. Rational fractional expressions. Identities and equations: solution knowledge. First degree and quadratic equations. Linear systems of two equations in two unknowns. Inequalities. First degree and quadratic inequalities. Inequalities with two fractional expressions. Radicals, inequalities with radicals.

Sets, relations and functions, elements of logic. Set elementary language: belonging, inclusion, union, complementary, empty set. Ordered couples (Cartesian product). Relations, functions (or applications).

##### Logic

Connective: negation, conjunction, disjunction, implication. Necessary and sufficient conditions. Understanding of the meaning of axiom, theorem, lemma, corollary, hypothesis, theory.

##### Geometry

Euclidean plane geometry: existence and uniqueness of the parallel and of the perpendicular for a point at assigned line. Linear measure, segment length (distance between two points), bijective correspondence between the points of a line and real numbers, circumference length. Angle width, degree and radiant measures, sum of inner angles of a triangle, angles made up of two parallels cut by a transversal. Congruence and similitude. Equi-decomposability of polynomials and elementary knowledge of area. Circle area. Remarkable geometric places: segment axis, angle bisector, circumference. Properties of plane figures: criteria of triangle congruence and similitude. Parallelograms, Thales' Euclid's and Pythagoras' theorems. Segment and angle properties of circle (ropes, secants, tangents, angles at the center and at the circumference).

Cartesian coordinates: line and circumference equations, equations of simple geometric places (parabolas, ellipses, hyperbolas) in suitable reference systems. Trigonometry: sine, cosine, angle tangents; fundamental trigonometric identity  $\sin^2x + \cos^2x = 1$ , addition formulas. Euclidean space geometry: intuitive idea of volume of solids, calculation of volume and area of parallelepiped surface, pyramids, prisms, cylinders, cones, and spheres.

Successions and elementary functions. Succession knowledge. Arithmetic and geometric progressions. Numerical functions and their graphs. Function domain. Properties of some elementary functions and their graphs: first degree and quadratic polynomials, logarithm and exponential functions, trigonometric functions. The logarithm function as inverse of exponential. Recurrence of trigonometric functions.

## 5. Job Opportunities

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Graduates in Computer Science, *Information Technology Curriculum*, can be employed in the following areas:

- software analysis, coding and maintenance;
- design and management of IT systems and databases;
- management of computing processes and innovation of techniques in business management;
- design and development of business networks and web services;
- information management within and between companies.

The involved professionals include IT technicians, software developers, web designers, software architecture engineers, computer network managers, software engineers. Some typical IT professionals are:

- IT junior engineer;
- software developer;
- software engineer;
- computer network manager;
- distributed application engineer;
- expert of e-commerce infrastructures;
- software architecture engineer;
- expert of security systems.

ISTAT classification of professions: 2.1.1.4 – Computer Scientists and Telecommunication expert: procedure analyst, program analyst, system analyst, EDP programming analyst, software engineer, expert in information sciences.

Graduates in Computer Science, *Information Technology Curriculum*, can enrol in the Degree in Computer Science (Class LM-18) at the University of Camerino or at other Universities.

### 1 Italian junior engineering Register

Graduates in computer science are eligible to be on the Italian junior Engineering register, department B, area “Information Engineering” but they must pass an exam that is carried out by UNICAM (Reference law: DPR n.328 5<sup>th</sup> June 2001 - issued on GU (official gazette) n.190 dated 17<sup>th</sup> August 2001). The exam is divided into two tests:

- a *written test* concerning the subjects of the specific area, they ask to be registered;

- a *second written test* on subjects within one of areas concerning the class of the specific degree
- an *oral test* on subjects concerning the written tests and on legislation and ethics;
- a *practical test* on design within one of areas concerning the class of the specific degree.

The exam for junior engineer provides two sessions: 1<sup>st</sup> session on 22<sup>th</sup> June 2010 and 2<sup>nd</sup> session on 30<sup>th</sup> November 2010. The request for participation should be sent at enrolment and information office.

## 6. Teaching Organization

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Just before the beginning of the teaching activities, all enrolled student have the opportunity to participate to the “giornate di ambientamento” (acquaintance days) which are organized every year at the beginning of October (specific information will be available at the UNICAM website). These days will be useful to get acquaintance with the University world and with all the UNICAM student services.

Teaching organization of the degree course in Computer Science, *Information Technology Curriculum*, is available at <https://didattica.unicam.it>

### • **European Credit Transfer and Accumulation System (ECTS)**

The acquisition of skills and knowledge by students is recorded by university credits (ECTS). Credits represent the task of learning - including individual study, practice exercises and laboratory work - that are required for the student to get the degree in Computer Science.

The average amount of work in a year for a student engaged in full-time university studies and in possession of adequate initial preparation is fixed at 60 credits. To get the degree in Computer Science, students must have gained 180 credits.

One credit is equal to a 25-hour standard workload for each student. The ratio of time spent for tutored activities and time spent for individual studies within the programme of training activities should usually be about 1/3. These values may vary according to the kind of course. Moreover, a credit should represent a 25-hour workload for a student who is getting ready for the final exam and possible placement or apprenticeship.

The graduate degree course in Computer Science, *Information Technology Curriculum*, provides 6 or 12 ECTS courses. The classification of teaching hours for each ECTS is as follows: 1 ECTS usually represents a 7-hour frontal course including 4 hours dedicated to the introduction of “new contents” (classic frontal lecture) and 3 hours dedicated to their in-depth study. Some exceptions are laboratory modules in which 1 ECTS represents a 9-hour practice tutored by a teacher or a joint project coordinated by a teacher. Therefore, courses allowing to get 6 ECTS represent a 42-hour frontal course or 54-hour laboratory course/module. ECTS of training activities borrowed from other degree courses will be calculated according to university's degree course handbook.

All activities concerning ECTS must be assessed. The assessment is expressed by specific committees chaired by the staff in charge of training activities. Courses can be either individual or integrated with a corresponding laboratory module. There will be one single exam in case of integrated courses. Course exams are usually carried out written and oral. In case of integrated courses specific tests and final projects can be requested in addition to the written and oral test. If not differently indicated, training activities are assessed by a grade expressed in 30ths “cum laude” (with honours). Verification of attendance and a report on activities carried out and signed by the teacher are necessary to give credits for placements or apprenticeships. The assessment can also be expressed with only 2 grades: “idoneo” (suitable) or “non idoneo” (not suitable).

### • **Credit Recognition**

In order to promote the enrolment of brilliant and motivated young people, ECTS recognition is possible for activities carried out before the enrolment in the degree course, or before the starting of the related learning activities. At most 6 ECTS for free activities can be recognized. Students can get ECTS for the following activities:

- no more than 3 ECTS for study projects properly agreed between the secondary school and the university (if the two bodies have an agreement);
- no more than 3 ECTS for the participation in a provincial mathematical competition with recommendation for a national competition;
- 2 ECTS for English Cambridge PET certification.

Concerning the first point, ECTS will be given according to the presentation of a report (paper, hypertexts, posters, etc.) on an agreed topic and its positive assessment by a committee made up of degree course teachers.

Specific knowledge, in particular English if over PET, can grant further credits depending on the Teaching Council subject to verification of the knowledge.

### • **Scholarships**

Several scholarships and incentives are available to promote the enrolment on degree course in computer science for brilliant and motivated students. Moreover, the University of Camerino calls for scholarships addressing to students enrolled on the degree course yearly. Further information is available at <http://www.unicam.it> and <http://www.ersucam.it/Interventi/BorsaDiStudio/BorsaDiStudio.htm>

### • **Lecture and exam calendar**

The teaching activity is divided into 2 semesters according to the following calendar:

Teaching Activity of the First Semester	4 <sup>th</sup> October 2010	-	28 <sup>th</sup> January 2011
Teaching Activity of the Second Semester	28 <sup>th</sup> February 2011	-	10 <sup>th</sup> June 2011

Information about timetables and rooms where lessons are taken are available at <http://www.unicam.it/studenti>

Exam sessions are provided for every course at the end of each period. The teachers will have to inform students about the kind of exam for each course quite in advance; the exam will only be oral if not specified. Exams can include the carrying out of projects and seminars, suitable for promoting the grade of autonomy and independence in the student. The student who wants to take an exam is obliged to register on-line for the session of the specific course at <https://didattica.unicam.it> with username and password supplied when the student enrolls. Every teacher delivers, at the beginning of each course, a weekly 2-hour period for receiving students in order to answer their questions about the course contents and organization. Clarifications can be also requested by e-mail using the e-mail address provided by the teacher.

### • **Final dissertation and getting the degree**

The final dissertation represents the discussion of a written paper which can be a technical report concerning the activity carried out at placements or a thesis concerning a topic chosen by the student within the characterizing courses. The paper is prepared under supervisor's guidance and it is assessed with a grade from 18 to 30.

The degree grade, expressed with numbers 66-110 with "cum laude", assesses students' curriculum, their preparation and their scientific maturity obtained at the end of the degree course. The degree grade is calculated as an average considering the number of credits and the assessments of all courses, including the final dissertation. If the grade obtained is at least 111, then "cum laude" is proposed. The thesis rules and the procedure stating how degree grades are given are available at <http://www.cs.unicam.it>. For further information, students can get in touch with the degree coordinator.

## • Teaching Curriculum

The following table shows how credits are distributed within the courses characterizing the curriculum of the degree course in Computer Science, *Information Technology Curriculum*:

<b>1<sup>st</sup> year</b>					
<b>I semester</b>					
Teaching Activity	SDS	ECTS	Modules	Kind of Activity *	Grade or Suitably
Computer programming + Lab	INF/01	6	Programming	a	Grade
	INF/01	6	Programming Laboratory		
Foundations of Computer Science	INF/01	6		a	Grade
Physics	FIS/01	6		a	Grade
Foundation of Mathematics	MAT/05	6 of 12	Mathematical Analysis	a	Grade
<b>II semester</b>					
Foundation of Mathematics	MAT/02	6 of 12	Discrete Mathematics	a	Grade
Logics	MAT/01	6		a	Grade
Computer Architecture + Lab	ING-INF/05	6	Computer Architecture	b	Grade
	ING-INF/05	6	Computer Architecture Laboratory		
English	L-LIN/12	6		e	Grade

<b>2<sup>nd</sup> year</b>					
<b>I semester</b>					
Teaching Activity	SDS	ECTS	Modules	Kind of Activity *	Grade or Suitably
Algorithms and Data Structures + Lab	INF/01	6	Algorithms and Data Structures	b	Grade
	INF/01	6	Algorithms and Data Structures Laboratory		
Mathematical Programming	MAT/09	6	Operations Research	c	Grade
	MAT/08	6	Elements of Computational Mathematics		
Project Management	SECS-P/08	6		f	Grade
<b>II semester</b>					
Operating Systems + Lab.	INF/01	6	Operating Systems	b	Grade
	INF/01	6	Operating Systems Laboratory		
Databases + Lab.	INF/01	6	Databases	b	Grade
	INF/01	6	Databases Laboratory		
Probability and Statistics	MAT/06	6		c	Grade

<b>3<sup>rd</sup> year</b>					
<b>I semester</b>					
Teaching Activity	SDS	ECTS	Modules	Kind of Activity *	Grade or Suitably
Software Engineering + Lab.	INF/01	6	Software Engineering	b	Grade
	INF/01	6	Software Engineering Laboratory		
Computer Networks + Lab.	ING-INF/05	6	Computer Networks	b	Grade
	ING-INF/05	6	Computer Networks Laboratory		
New Technologies Law	IUS/01	6		c	Grade
<b>II semester</b>					

Free choice option		12		d	Grade/Suitably
Placement		12		s	Suitably
Final exam		6		e	Grade
<b>Total number of ECTS</b>		<b>180</b>			
<p><b>* kind of activity:</b></p> <ul style="list-style-type: none"> <li>a. basic teaching activity</li> <li>b. characterizing teaching activity</li> <li>c. similar or additional activity</li> <li>d. teaching activity chosen by the student</li> <li>e. final examination or foreign language skills</li> <li>f. others (further language skills, IT and relational skills, placements, etc.)</li> <li>g. placement</li> </ul>					

• **Progression constraints**

The *Information Technology Curriculum* requires that the following progression constraints are satisfied:

- the 12 ECTS of Foundations of Mathematics are necessary to take second year exams;
- Computer Programming + Programming Lab. exam must have been taken to take Algorithm and Data Structures + Lab. exam;
- Computer Architecture + Computer Architecture Lab. must have been taken to take Operating Systems + Operating Systems Lab.

• **Free courses for the academic year 2010-2011**

Students of the graduate degree course in Computer Science, *Information Technology Curriculum*, can include in their study plan free choice courses within all courses available for the academic year 2010-2011 from the School of Science and Technology:

<b>Course Description</b>	<b>ETCS credits</b>	<b>SDS</b>	<b>Semester</b>
Programming Environments for Industrial Automation (promoted by the Loccioni Group)	6	INF/01	I and II
Community Law of Information and New Technologies	6	IUS/01	I
Economic Law	6	IUS/01	I
Information Law	6	IUS/01	I
Law of New Information Technologies	6	IUS/01	II
Home Automation and Integration of Technological Systems (promoted by the Loccioni Group)	6	INF/01	II
Elements of Communication and Use of New Media	6	SPS/08	II
e-Business: Complex Relationships in the Net Economy	6	SECS-P/10	II

e-Health and Telemedicine	6	INF/01	I and II
C and C++ Programming	6	INF/01	II
Political Economy	6	SECS-P/02	II
Network Policies and Security	6	INF/01	I
.NET Programming (promoted by e-Lios, spin-off of the University of Camerino)	6	INF/01	II
Programming in LabView (promoted by the Loccioni Group)	6	INF/01	I and II
Web Technologies	6	INF/01	I

## **7. Teaching activities and teachers**

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Attachment A of this handbook contains in detail any information about active courses and relative teachers offered by School of Science and Technology and Degree Course for the following sets of students

- Students starting **in 2010 and attend the 1<sup>st</sup> year**
- Students who started in 2009 and **attend the 2<sup>nd</sup> year**
- Students who started in 2008 and **attend the 3<sup>rd</sup> year**

## **8. Curricula for teachers, programs of individual learning activities, educational facilities**

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The syllabuses of individual learning activities with their descriptions are made available by teachers on the University website ([www.unicam.it](http://www.unicam.it)), under the section 'Courses'.

Through this website it is also possible to access to curricula for teachers and to a description of all educational and scientific facilities.

Lecture schedules and indications about the classrooms where these lectures will be held are available at

<http://www.unicam.it/studenti>.

[Exam calendar are available on the website for teaching \(https://didattica.unicam.it\)](https://didattica.unicam.it).

## **9. Teaching support services**

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### **• Postgraduate Orientation**

There is often a disconnect between the learning program at a university and the reality of the workplace into which the student needs to enter. The orientation service provides guidance both to those graduating and to postgraduates, in collaboration with the Internship and Placement Service. Opportunities for reflection on the choices and support activities for vocational training are given. The initiative "Young People + University = Work" is of particular relevance here. This takes place each year, generally in the autumn. University students and new graduates are invited to attend the event where they have the opportunity to listen to the accounts given by many different professionals, to meet and to establish direct contacts with company representatives, and to meet experts from the world of working, so they can start to plan out their own personal career path.

### • **The mentoring program**

Mentoring contributes to the cultural and professional training of the student, encouraging wider and more and active participation throughout the entire degree course. The mentoring program has the following objectives:

- Assist the student in all aspects of their study
- Encourage different ways of participating in the training process
- Remove barriers to education through initiatives tailored to the needs, aptitudes and requirements of each individual student.

The Mentoring Program of the University of Camerino uses and provides specific tutoring activities for both groups and individuals. It organizes a flexible range of teaching tutorials during the academic year, conducted by tutors who have been chosen for their particular profiles aimed at activities for students who work and for the different teaching approaches required for e-learning.

- *Support tutoring*, provided by experienced students with the task of helping younger students in organizing their studies and get acquainted with the new environment.
- *Group Tutoring* provides scheduled meetings with the course teachers. It is designed to highlight and resolve, also through input from the students, any problems encountered in the course.
- *Individual Tutoring*: UNICAM assigns to each student a 'teaching tutor' whose task is to follow and advise the student throughout their course of study through regular meetings and through meetings requested by the student.
- *Teaching tutoring*: related specifically to basic science courses and to English, and organized by means of supplementary courses, especially devoted for filling gaps in the student knowledge.

### • **The opportunities for studying abroad**

The University of Camerino provides students with different possibilities for studying abroad:

#### **ERASMUS for study**

The ERASMUS programme, that fits in the European Long-life Learning Programme (LLP), allows to spend a study period abroad (3 to 12 months), providing the opportunity to take courses, to use of university facilities, to carry out research aimed at drafting the degree thesis, and to obtain recognition of the exam taken abroad provided that they have been pre-defined in a proper curriculum (Learning Agreement). Interested students can participate to the annual call for obtaining scholarships. This call is published in the period December – February and it is valid for the subsequent academic year.

#### **ERASMUS Student Placement (training)**

Since the academic year 2007/2008, it is possible to hold training (3 to 6 months) in enterprises, research centres, European training centres ensuring a recognition of curricular activities carried out abroad provided that such activities are previously agreed with the Erasmus coordinators. All students who are interested can participate to the annual call for obtaining scholarships. This call is published in the period February – March and it is valid for the current academic year.

The degree course in Computer Science, through its referent, promotes meetings with the students to encourage the international mobility both to universities within Erasmus programme and to universities where an international cooperation agreement is available. We will credit the activities in the learning agreement. The student who carries out a training activity abroad for at least 6 months will receive an acknowledgement at final assessment.

The degree course in Computer Science, *Information Technology Curriculum*, involving the Erasmus programme has reached an agreement with the following European universities:

Nation	University	Language	Scholarships	Duration	Teaching Activities
ES - Spain	Universidad de Burgos	SPANISH	2	9 months	<i>Courses/Thesis for Undergraduate</i>
FI - Finland	Helsinki Metropolia University of Applied Sciences	ENGLISH	2	6 months	<i>Courses/Thesis for Undergraduate</i>
IS - Iceland	Reykjavik University	ICELANDIC (Undergraduate)	4	6 months	<i>Courses/Thesis for Undergraduate and</i>

		Study) ENGLISH (Postgraduate/Ph D Study)			Postgraduate/PhD
PL – Poland	Politechnika Gdanska	ENGLISH	2	6 months	<i>Courses/Thesis for Undergraduate</i>
NL-Netherlands	Technische Universiteit Eindhoven	ENGLISH	2	6 months	<i>Courses/Thesis for Undergraduate /PhD</i>
PL - Poland	Technical University of Lodz	ENGLISH	2	5 months	<i>Courses/Thesis for Undergraduate</i>
GR – Greece	Technological Institute of Larissa	GREEK	2	6 months	<i>Courses/Thesis for Undergraduate</i>
ES - Spain	Universidad de Vigo	SPANISH	2	6 months	<i>Courses/Thesis for Undergraduate and Postgraduate/PhD</i>
SE – Sweden	Mälardalen University	ENGLISH	4	5 months	<i>Courses/ Thesis for Undergraduate and Postgraduate/PhD</i>
CH- Switzerland	University of Applied Sciences Northwestern Switzerland	ENGLISH	4	6 months	<i>Courses/ Thesis for Postgraduate</i>
PL-Poland	Military University of Warsaw	ENGLISH	2	5 months	<i>Courses/Thesis for Postgraduate/PhD</i>

The Regulation concerning mobility of Computer Science students an updated list of European universities with which degree course in Computer Science has an agreement can be found at the website <http://www.cs.unicam.it>

Further information can be asked to the International Mobility and Erasmus coordinator.

### • **Training and Placement**

The connection between the university and work is one of the priorities at UNICAM. UNICAM organizes meetings and discussions amongst students, graduates, professionals and companies. In this spirit, the internship is an important tool allowing students, both graduates or recently graduated, to 'practice' in a real working environment, an opportunity to learn directly about working-life and the opportunity to develop, in some cases, a specific expertise.

The University of Camerino has agreements with more than 1800 companies, institutions, administrative and professional offices, where students, both graduates and PhD, may pursue their internship activities. Students can do internship both in Italy and abroad.

### **Services offered**

- Management of a database (UNICAM Stage) through which internships, to be carried out at companies or at public and private agencies, are offered;
- Activation of post-graduate internships in companies

- Management of a database (UnicamJob) through which the graduated at the University of Camerino can make their curricula accessible on-line;
- Activities supporting the entering in the work market;
- Adhesion to the programme 'Borsa Lavoro', a network of on-line services where work supply and demand meet ([www.unicam.it/laureati/mondolavoro/index.asp](http://www.unicam.it/laureati/mondolavoro/index.asp) )

- ***Services for students with disabilities***

The 'Welcome Service for Disabled Students' aims at providing students with disabilities equal opportunities in dealing with their studies and the chance to fully live the college experience.

This objective is pursued through outreach activities, through technology, and through staff specially dedicated to students and to the removal of the physical and cultural barriers standing in the way of learning and in the way of everyday life.

By contacting the Service Tutors, it is possible map out a training plan, taking into account the particular disability and the individual goals, through the defining of solutions and through personalised participation.

**Facilities and services:**

- Technological aids and directed teaching support
- Personalised examinations (for entry and achievement)
- Specialised tutoring
- Transport and relocation
- Procurement and delivery of library materials
- Exemption and reduction of taxes
- Furnished housing with a possible subsidy
- For the companion
- Access to university facilities
- Counseling
- Access to the sports facilities of C.U.S.
- Grants towards participation in the Socrates / Erasmus programmes
- Internships and training directed towards finding employment

## 10. *Quality Systems*

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The undergraduate course in Computer Science is within the UNICAM quality management system **certificate ISO 9001:2008** (from **AFAQ-France**, a French leader and one of the first certification bodies at the global level) which guarantees students the quality of services provided. The guarantee is via a rigorous analysis of internal organizational procedures and the prompt addressing of any defects whether detected or reported by the students themselves. The Quality Management System includes the following support services for students: orientation, tutoring, international mobility, training and placement, communication. These integrate with and support the educational activities, so as to contribute to the complete training of the student.



The undergraduate course in Computer Science, *Information Technology Curriculum*, is within the system for the certification of the quality of education in Computer Science at a university level. Such system, named '**Bollino GRIN**', has been introduced to allow both students and enterprises to make a distinction among the number of different degrees that are somehow pertaining to Computer Science offered by the Italian universities. Since 2005, the 'Bollino GRIN' has an agreement with the **CRUI** (Conference of Rectors of Italian Universities) and is supplied in collaboration with **AICA** (the Italian Association of Computer Science and Automated Calculus). The 'Bollino GRIN' is assigned on the basis of the teaching offer of each academic year and can be exhibited in the subsequent academic year. In 2009, the undergraduate course in Computer Science of the University of Camerino has received the 'Bollino GRIN' for the fifth time.



## 11. *Other useful information*

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University website: <http://www.unicam.it>

School website: <http://sst.unicam.it>

Degree Courses in Computer Science website: <http://www.cs.unicam.it>

Website for teaching: <https://didattica.unicam.it>