



UNIVERSITÀ
di **VERONA**

Master's degree programme in
Computer Engineering for Intelligent Systems

LM-32 Class of Master's Degrees in Computer Engineering

**DEGREE PROGRAMME
DESCRIPTION AND REGULATIONS**

(ANNUAL FACT SHEET - SUA-CdS, B1 section)

A. Y. 2024/25

YEAR OF ENROLMENT: 2024/25

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GENERAL INFORMATION

1.	DEGREE PROGRAMME WEB PAGE	The web pages of the study program provide an overview of the course organization, regulations governing functional aspects, and other university regulations useful to the student community. They describe the quality assurance system and orientation services for future students. Information on the practical organization of the course, the conduct of teaching activities, training opportunities, and useful contacts throughout the study path up to graduation can be found. Procedures and modalities for enrolling in the course, entry requirements, and support services for students, including international ones, are also available. Additionally, contact information, FAQs, notices, services, and opportunities offered by the University are provided.
2.	PROGRAMME DIRECTOR	Prof Andrea Giachetti The Programme Director chairs the Quality Assurance Group, which is in charge of the design and self-evaluation of the degree programme according to the guidelines provided by the Quality Assurance Board.
3.	PRESIDENT OF THE TEACHING COMMITTEE	Prof. Graziano Pravadelli The Teaching Committee is responsible for planning, organising, coordinating, checking and ensuring the quality of teaching; it is up to the Teaching Committee to propose changes to the degree programme regulations and rules and decide on any relevant students' requests.
4.	ADMINISTRATIVE UNIT	Science and Engineering Teaching and Student Services Unit
5.	TEACHING STAFF, MODULES AND OFFICE HOUR	Lecturers will normally publish information about their teaching and research activities on their individual web pages, which you can access from the home page of the degree programme web page. From the home page you will also be able to access and explore the module web pages, where you will find an overview of the contents of each module. For office hours details and information, please check the individual web page of the relevant lecturer.
6.	DURATION	2 years
7.	LOCATION	Strada Le Grazie 15, 37134 Verona
8.	DEPARTMENT/SCHOOL	Engineering for Innovation Medicine
9.	CURRICULUM	Healthcare systems Industrial systems
10.	LANGUAGE	English
11.	TEACHING MODE	In-Person lectures
12.	TEACHING MODULES	The student is entitled to use any teaching materials provided for the course. If the instructor has activated the Moodle e-learning platform, the materials contained therein remain available to students for a number of years equal to, at most, the normal duration of the study program. If the instructor has provided video recordings of the lessons, the videos remain available to students on the Panopto platform for the current and previous academic year.
13.	ADMISSION	No admission Test required
14.	REQUIRED ENTRY QUALIFICATIONS	Laurea (three-year Bachelor's degree), or other qualification gained abroad and recognised as suitable.
15.	SUBJECT REQUIREMENTS AND PERSONAL PREPARATION	For further information, please see the relevant web page
16.	ENROLMENT	For information about how to apply, please see the relevant web page
17.	CFU CREDITIS	As a general rule, one CFU credit equates to 25 hours of learning time.

		<p>Depending on the type of teaching activity the CFU/hour ratio will be as follows:</p> <ul style="list-style-type: none"> lectures: 6 hours = 1 CFU; practicals/laboratory activities: 12 hours = 1 CFU; internship/professional traineeship: 25 hours = 1 CFU.
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MODULES		
18.	STUDY PLAN	<p>The Study Plan includes the modules and other educational activities to be attended in the two-year degree programme.</p> <p>For further information, please see the degree programme web page.</p>
19.	MODULES PER ACADEMIC YEAR	<p>A list of the modules available in the relevant academic year, listed by academic year and year of enrolment, can be found here.</p>

PROGRAMME REGULATIONS		
20.	ASSESSMENT METHODS	<p>For each module/activity, the learning objectives, a programme description, textbooks, teaching material required and relevant assessment methods are determined. This information is available on each degree programme's website (please see the modules web pages).</p>
21.	PRIORITY MODULES	<p>There are no priority modules ('propedeuticità' in Italian), i.e. there is no specific order in which modules should be taken.</p>
22.	REQUIREMENTS FOR ENROLMENT IN SUBSEQUENT YEARS	<p>There are no requirements for enrolment in subsequent years ('sbarramento' in Italian).</p>
23.	CHOOSING YOUR CURRICULUM	<p>You must indicate the chosen curriculum at the time of enrollment. It is possible to change the curriculum during the course of study.</p>
24.	ELECTIVE MODULES AND ACTIVITIES (TYPE D)	<p>Elective Activities (Type D) Students have 12 ECTS credits reserved for elective activities under Type D, which can be selected from all graduate-level courses offered by the University. The following are automatically recognized:</p> <ul style="list-style-type: none"> Residual exams not selected from the Study Program. Type D activities offered by the Department of Computer Science and the Department of Innovation in Medicine Engineering at the University of Verona, listed on the dedicated webpage under "Courses and Other Activities That Can Be Independently Added to the Transcript." Courses on transversal skills. <p>If the selected courses do not fall within the above-listed activities, students must submit a list of the courses they intend to take to earn these credits to the Student Affairs Committee. The committee will review these cases. Exams with basic content in Computer Science will not be recognized. Credits derived from internships or professional training cannot be recognized under Type D activities.</p> <p>Type D Activities</p>

25.	ADDITIONAL TRAINING ACTIVITIES (F), INTERNSHIPS, WORK PLACEMENT, ETC	<p>For cross-disciplinary activities, internships, and other experiences, students can earn up to 6 CFU. These activities are designed to provide students with direct knowledge in areas that are particularly useful for entering the job market and acquiring specific skills of professional interest. The following activities are included:</p> <ul style="list-style-type: none"> • Initiatives approved by the Academic Board. • Courses on cross-disciplinary skills. • Additional language skills, beyond those required by the study plan, for a maximum of 3 CFU in category F. Any excess credits will be recognized as extra credits. • Work experience, for a maximum of 3 CFU in category F. Students can obtain recognition by submitting an application to the student office (carriere.scienze@ateneo.univr.it) indicating their employment status (employee or self-employed). The request will be evaluated by the Student Affairs Committee, which will verify its alignment with the educational path. • Internship or professional training activities. <p>These activities can be carried out within the context of laboratory or seminar courses under the direct supervision of a faculty member or at companies accredited by the University of Verona, public administration bodies, public or private research laboratories (including laboratories within the Science and Engineering Area).</p> <p>The verification methods for the acquisition of CFU through internships and/or training activities are defined by the relevant university bodies and published on the university website. The section titled "List of Thesis and Internship Proposals" also includes some internship opportunities. For the recognition of credits earned through internships, the University's credit recognition regulations for internships apply.</p> <p>If the number of credits earned exceeds the credits provided in category F (i.e., 6 CFU), the excess will be recognized only as extra credits.</p>
26.	TRANSVERSAL/SOFT SKILLS	<p>These are educational pathways aimed at acquiring cross-disciplinary skills that are valuable both from a personal and professional standpoint, as well as for civic engagement. They are promoted by the Teaching and Learning Center of the University, where all the relevant information for enrollment is published on their website.</p>
27.	HOW TO SUBMIT YOUR INDIVIDUAL STUDY PLAN	<p>The study plan is completed through an online procedure in which the student selects the courses they wish to take within the educational offerings of their program, based on specific selection rules. More information can be found at www.univr.it/pianidistudio.</p>
28.	INDIVIDUAL STUDY PLAN	<p>It is possible, upon request, to obtain the degree according to an individual study plan that includes educational activities different from those provided in the academic regulations, as long as they align with the educational framework of the study program for the academic year of enrollment.</p> <p>The application for an individual study plan is subject to review by the relevant academic body, which will assess its coherence with the program's curriculum.</p>
29.	ATTENDANCE	<p>Not mandatory Attendance Requirements</p>
30.	TUTORING FOR STUDENTS	<p>In order to guide and assist students throughout their studies, some lecturers are entrusted with tutoring tasks. Moreover, it is available a tutoring service run by enrolled senior students who</p>

		offer their University life experience to prospective and current students.
31.	TRANSFER FROM ANOTHER DEGREE PROGRAMME/FROM ANOTHER UNIVERSITY	<p>The term "passaggio" refers to the transfer from one study program to another within the University of Verona (internal transfer). "Trasferimento" refers to the case of students transferring from another university to the University of Verona.</p> <p>In the case of a transfer from another degree program, validation can only occur based on detailed documentation provided by the originating program/institution (acquired officially), which certifies the exams taken along with the corresponding grades and credits earned. The Student Affairs Committee will validate the credits using the following criteria:</p> <ul style="list-style-type: none"> • For activities associated with a specific scientific-disciplinary sector, credits will be validated by evaluating the content of the educational activities and the achievement of the educational objectives of the Study Program on a case-by-case basis. To make up for any credit deficiencies, the committee may identify the most appropriate supplementary activities necessary to meet the required credits for the specific activity related to one or more courses active within the degree program. It is not possible to supplement courses for which fewer than 40% of the total credits of the course have been earned; in such cases, the entire exam must be retaken. • For activities not associated with a specific scientific-disciplinary sector, the committee will evaluate the content of the educational activities and their alignment with the objectives of the Study Program on a case-by-case basis, considering the number of credits earned that can be validated within the scope of the educational activities required in the Study Program. • If a particular educational activity is the result of contributions from multiple activities with different grades, the final evaluation will be determined by the weighted average of the grades obtained, rounded up to the nearest whole number. <p>Following these evaluations, the Student Affairs Committee will determine the year of enrollment.</p> <p>A student who wishes to transfer from another Master's Degree Program must first submit an application to verify that they meet the admission requirements. After this verification, the student can request a transfer (from another university) or a <i>passaggio</i> (from another program within the university). The Student Affairs Committee is responsible for validating the credits earned, along with the corresponding grades, in other degree programs, either in Italy or abroad.</p> <p>The procedure for changing the academic system is the same as that for program transfers.</p>
32.	RECOGNITION OF PRIOR LEARNING	<p>The evaluation of a student's previous academic record, whether for a program change ("<i>passaggio</i>"), incoming transfer, or withdrawal from studies, involves the partial or full recognition of previously earned credits (CFUs), depending on the correspondence between the two study programs.</p> <p>The same rules outlined for program changes or transfers to another study program also apply to students who request recognition of prior academic work. After the evaluations mentioned above, the Student Affairs Committee will determine the appropriate year of enrollment.</p>

		Recognition of prior learning
33.	RECOGNITION FOR DUAL ENROLLMENT	Students enrolled simultaneously in two different study programs can request the recognition of credits acquired in the other study program they are enrolled in, up to a maximum of one-third of the total credits required by the study program for which recognition is requested.
34.	EXAM ROUNDS	Exam dates are announced at least 20 days before the start of the exam session. There are three exam sessions, with a total of four exam opportunities: two at the end of the semester when the course is offered (February or June/July), one in the following semester (June/July or September), and one make-up session (September or February)
35.	FLEXIBLE STUDENT PATHWAYS	<p>The management of academic careers takes into account the specific needs of certain categories of students</p> <p>Disabilities, specific learning disorders (SLD), and special educational needs (SEN): With particular attention to disabilities and specific learning disorders (SLD), the study program and the dedicated structure pursue the university inclusion of students with disabilities and specific learning disorders. To this end, it promotes the removal of material and immaterial obstacles that hinder full inclusion and also promotes the adoption of shared accommodations for participation in lessons, exams, and other educational activities, and in general, for participation in the life of the university community, in compliance with the applicable regulations and without prejudice to the teaching autonomy of the instructors. In particular, the study program facilitates accessibility to facilities and teaching materials and promotes the use of synchronous or asynchronous distance learning methods to meet the specific needs expressed by students with disabilities or specific learning disorders. Within the limits of the applicable regulations, it promotes the university inclusion of students with special educational needs.</p> <p>Part-time enrollment (or "reduced-time"): The part-time regime regulates exclusively the duration of the university career and the related economic burdens and allows obtaining the degree without falling into the status of out-of-course, for double the normal duration of the course itself.</p> <p>Enrollment in single courses: It is possible to attend individual courses offered within the undergraduate and graduate programs for one academic year and take the related exams, receiving a regular certificate that includes the indication of the acquired CFU (University Credits).</p> <p>Student-athlete: Those with significant competitive sports merits can access the student-athlete career. Annually, a specific notice governs the access and retention requirements for student-athletes for the dual career path, to enable them to successfully complete an academic career in combination with their sports career.</p>
36.	FINAL EXAMINATION	<p>The thesis project is worth 24 CFU (university credits) and is a significant component of the degree program, designed to allow students to develop an original study that may include creating an application project, achieving theoretical results in the core disciplines of the degree program, or writing a critical review of the state of the art in a particular field.</p> <p>Purpose of the Thesis</p>

	<p>The thesis aims to develop an original study that leads to an application project, theoretical results in the core disciplines of the degree, or a critical review of the state of the art in a specific area. During the thesis, the student, under the guidance of their supervisor(s) and possibly other co-supervisors, is expected to delve deeply into their chosen topics, acquiring the ability to synthesize and creatively apply their acquired knowledge. The thesis will be presented in written form and must be composed in English.</p> <p>Thesis Presentation and Evaluation The thesis must be presented and defended during the final examination. The presentation can be conducted in either English or Italian and may include multimedia aids such as slides, videos, images, and sound.</p> <p>Execution and Evaluation Procedures Internal vs. External Theses: The thesis can be completed within the University of Verona (internal) or in collaboration with an external entity (external). In both cases, the student will have a primary supervisor and may have additional co-supervisors and an external examiner. External Examiner: An external examiner is appointed by the Didactic Board at least 20 days before the thesis defense, after verifying the student's eligibility for the final exam. Legal aspects related to the thesis, such as intellectual property rights, are governed by current legislation and University regulations. Thesis Evaluation Criteria The thesis is evaluated based on the following criteria:</p> <p>Depth of research relative to the state of the art in the relevant disciplines, with emphasis on applications to medical and biological fields. Knowledge or technological advancements contributed by the thesis. Critical effort demonstrated by the student. Experimental or formal development work carried out by the student. Student's independence in conducting research. Significance of the methodologies employed. Accuracy in execution and writing. The external examiner does not evaluate the student's independence.</p> <p>Grading The final degree grade, expressed out of 110, is an integer value ranging from 66/110 to 110/110. It is calculated by summing the following components, rounded to the nearest whole number (e.g., 93.50 becomes 94, 86.49 becomes 86):</p> <ol style="list-style-type: none"> 1. Weighted average of the grades earned in exams, adjusted to a scale of 110. 2. Evaluation of the thesis defense and thesis, based on: <ul style="list-style-type: none"> o a) Assigning a coefficient between 0 and 1 (fractional, with one decimal place) for each of the seven evaluation criteria listed earlier. o b) Assigning a coefficient between 0 and 1 (fractional, with one decimal place) for the quality of the presentation. o c) Summing the coefficients assigned in steps a and b. <p>Additional points may be awarded for:</p> <ul style="list-style-type: none"> • Honors ("lode") obtained in exams.
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		<ul style="list-style-type: none"> • Participation in internships officially recognized by the Collegio Didattico of Information Engineering. • Completion of extra exams beyond the required credits. • Completing the degree in a shorter time than the standard duration of the program. <p>If the total score reaches 110/110, the commission may decide to award honors (lode). This decision is made by the commission after discussion, without using any automatic calculation methods. According to current regulations, honors can only be awarded if the decision is unanimous.</p> <p>External Theses For theses carried out in collaboration with an external entity, the student must pre-agree on the thesis topic with a university supervisor. An external co-supervisor from the collaborating entity must be involved, serving as the immediate point of contact for the student during the thesis work. All parties involved in the thesis share ownership of the results, which are considered public.</p> <p>Supervisors and Examiners The thesis is supervised by a faculty member from the Department of Engineering for Innovation in Medicine or an external lecturer approved by the Didactic Board. Co-supervisors can include external researchers, research fellows, PhD students, and industry experts. The external examiner must be a faculty member or researcher from the University of Verona with expertise in the thesis topic.</p> <p>Deadlines and Procedures Students approaching graduation must identify a thesis topic and secure approval from their supervisor and co-supervisors (if applicable). When the thesis is nearly complete, the student must submit a graduation application to the student office, which includes the provisional thesis title, names of the supervisor, co-supervisors, and external examiner. The final thesis title must be submitted 20 days before the final exam, along with the thesis in digital format. The required documents must be submitted according to the deadlines set by the student office. Additionally, the student must: i) Upload the thesis to the ESSE3 platform. ii) Send a PDF copy of the thesis to the external examiner.</p> <p>Final Examination Committee The final examination committee consists of five members, at least four of whom must be faculty members from the Department of Engineering for Innovation in Medicine. The Didactic Board will organize the thesis defenses and publish the schedule at least one week in advance.</p> <p>Students must meet all credit requirements and be up to date with tuition payments to be admitted to the final exam. The student office will invite all relevant supervisors and co-supervisors to the thesis defense session.</p>
37.	ADDITIONAL INFORMATION	<p>Teaching Committee and Committees of the Teaching Committee The organizational management of the Degree Program is entrusted to the Interuniversity Teaching Committee of Information Engineering (Collegio Didattico or CD), which is affiliated with the Department of Engineering for Innovation in Medicine. The CD has the authority to establish internal</p>

		<p>committees tasked with specific duties as outlined in the University's Statute and Regulations. These committees carry out preliminary assessments on various matters, providing evaluations prior to the CD's final decisions. The CD is responsible for appointing the Course Coordinator and the Quality Assurance Committee (AQ).</p> <p><u>Academic Calendar</u></p> <p>The CD is also responsible for defining the academic calendar, including the scheduling of teaching activities, exam sessions, and deadlines for administrative tasks.</p> <p>Foreign Degrees and Study Periods Abroad</p> <p>The Student Affairs Committee is responsible for recognizing credits obtained by students during study periods abroad, assigning corresponding grades where applicable. After evaluations, this committee determines the appropriate year of enrollment for the student. The recognition of credits earned by students enrolled in the Master's Degree in Computer Engineering for Intelligent Systems during study periods abroad, under international programs that the University of Verona participates in, is subject to the assessment of the Student Affairs Committee in accordance with the regulations of the Science and Engineering Area.</p>
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