UNIVERSITÀ CATTOLICA del Sacro Cuore

Rome
a.y. 2025/2026

Inter-faculty programme

Economics

Medicine and surgery "A. Gemelli"

2 years Graduate Degree programme in Healthcare Management (HeMa)

Course guide interfaculty

UNIVERSITÀ CATTOLICA DEL SACRO CUORE
00168 ROMA– Largo Francesco Vito 1

GUIDE OF

MASTER'S DEGREE PROGRAMME IN
HEALTHCARE MANAGEMENT

Study plans

Academic Year 2025/2026

I N D EX

INTRODUCTION

STUDY PLANS

FACULTY'S INTRODUCTION

The Faculty and its development

The Faculty of Economics is recognised nationally and internationally as a place of university education of excellence, with a history dating back to 1947. For the new academic year 2025/26 presents a rich and varied educational offer of tradition, where undergraduate and graduate degrees merge into a study project that stands out for the modernity of its content and its anchoring to the values of an economy at the service of the person and the common good.

The fundamental characteristics of our educational offer are twofold: to offer a common base of knowledge useful for successfully qualifying in the world of work and professions; to allow all students to follow their aspirations, inclinations and interests right from the construction of their degree curriculum, thanks to the wide range of curricula and courses of their choice.

The teaching is also enriched by numerous opportunities to participate in meetings, workshops and seminars, where students can get involved in current and stimulating debates, also increasing their ability to critically analyse their own thoughts and communicate them clearly and effectively.

Over the decades, the Faculty has trained countless graduates and, thanks to this experience, the educational offer has developed over the years with new degrees, progressively increasing educational opportunities for integration with the course of study (internships, study-abroad, among others), useful for promoting valuable and complete personal and professional growth.

Quality teaching and attention to the individual are the fundamental characteristics of our university study method, which is increasingly relevant and effective because it is based on a vision of economics anchored to values.

Thanks to a teaching staff of high scientific level and with proven teaching skills, the lessons are enriched every year with innovative and stimulating content, and are conducted in such a way as to allow students, in the various degree programmes, to interact and actively participate in an interactive teaching method, in line with the economic transformations of our time and attentive to the needs of young people.

Solidarity, inclusion and sustainability are the universal keys to understanding an economic model that has always been part of our vision and that we want to pass on to new generations with the same enthusiasm of decades of educational and scientific experience.

From data to theoretical models, everything revolves around the complexity of phenomena, which is addressed in the various subjects with the necessary graduality and with a strong focus on the impact, effects and results of decisions concerning the economy.

The mix of knowledge that is transmitted is divided into different areas: business, economic, legal, quantitative and humanistic knowledge all contribute to effective training.

The family of Università Cattolica del Sacro Cuore is the ideal environment to take the opportunity to join this educational project that sees the economy as a driving force for development and widespread opportunities for all people and all nations.

In our classrooms, students have the opportunity to acquire a mentality that is truly open to international dynamics, as well as attentive to environmental and local issues, so that our graduates grow as people capable of orienting themselves in the best possible way in the professional future that awaits them, committed to being bearers of good in civil society and in the world.

The design of the degree curricula aims to balance **a strong interdisciplinary and multidisciplinary foundation** with a course structure that reflects the specialised needs of reality.
The three-year formative cycle is based on a set of courses common to all degrees. The reasons for this choice relate to the need to anchor education in a group of basic disciplines in the economic, managerial, legal, quantitative and humanistic fields, but also to allow young people to make a better-informed choice of their degree programme.

In particular, **in the academic year 2025/2026**, the formative project of the Faculty of Economics is characterised as follows: courses are more clearly divided into curricula; collaboration with the world of work and professions in the planning of study programmes and in the implementation of parts of the academic path itself; organisation of study paths characterised also by an important role played by research activities that strengthen their specific skills;

a balanced distribution of students' learning commitments, proportionate to the staff and skills actually available; introduction of homogeneous and compact organisational forms of teaching; implementation of advanced and more interactive teaching methods.

The Faculty of Economics also stands out for its focus on **building on the already ample opportunities for accessing** higher education, which is

nowadays a key resource. Indeed, ever since the beginning of the post-war period, the Faculty has offered courses in the late afternoon and evening, in addition to those held in the morning and afternoon. This was to allow people to access university who, for various work-related reasons, could not attend during the day.

An ideal innovation for working students in the evening courses is the launch of the graduate degree in **Management and Business Consultancy**, which is available at both Milan and Rome campus.

The graduate degree in **Management and Business Consultancy**, based on the experience of the late-afternoon programme in "**Markets and Business Strategies**", shares part of the basic formative path with the other graduate programmes in business economics, whilst also offering an original blended formula.

Thanks to close collaboration with the Centre for Innovation and Development of Educational and Technological Activities of the University (Ilab) and with the Research Centre on Media, Information and Technology Education (Cremit), 50% of the degree programme is delivered in person, during the weekends (no longer in the evening), with the other 50% delivered online using the latest e-learning technologies.

Classroom learning is still present, therefore, and offers more than frontal lectures: it is also an opportunity for discussion between students and revision of work completed online.

In addition to providing moments for self-learning through the study and consultation of teaching materials, the online part of the programme requires students to engage in a series of distance-learning activities on the university Blackboard platform. These include consulting "video lectures" or supplementary materials; creating a database of contents; conducting practical tasks and/or case studies, including in groups; evaluating the topics covered; and, finally, coaching/tutoring activities, thanks to constant contact and discussion with the course lecturer.

Finally, we wish to highlight the ways in which the Faculty emphasises both **foreign language knowledge** and **computer tools** in its formative design by organising courses that use the **most advanced teaching and learning technologies**. With regard to language skills, constant collaboration with the Faculty of Linguistic Sciences and Foreign Literatures and the exchange agreements in place make it possible to learn the main European languages and those of rapidly developing territories, and to follow courses at the best European and international universities, so that students can integrate their learning in specific disciplinary areas with the language and culture of different countries.

Teaching staff (as of July 2025)

Resident Faculty
Prof. GIUSEPPE ARBIA: Statistics and big data
Prof. ALFREDO D'ANGELO: Management and innovation in health and social services
Prof. ANTONIO DE BELVIS: Healthcare and insurance in comparative systems, Epidemiology
Prof. IRENE GABUTTI: Human resource management in complex organizations
Prof. MARIA CHIARA MALAGUTI: International law and health
Prof. MARCO RIZZO: Planning and control in healthcare
Prof. DARIO SACCHINI (School of Medicine and Surgery): Ethics, medicine and public health (Bioethics)
Prof. LUCA SALMASI, Pharmaeconomics and health technology assessment
Prof. ELISA RAOLI: Financial and management accounting in health care
Prof. NICCOLÒ SALVINI: Statistics and big data
Prof. GILBERTO TURATI (Academic Course Director), Health economics
Prof. STEFANO VILLA, Quality and operations management

Adjunct Resident Faculty
Prof. ARIANNA ARIENZO (VoiceMed, Luxembourg): Management and innovation in health and social services
Prof. ANDREA CAMBIERI (Gemelli Hospital, Rome): Quality and operations management

Visiting Faculty
Management
Prof. GILLIE GABAY (College of Management Academic Studies, Israel)
Prof. PAUL GEMMEL (Ghent University, Belgium)
Prof. LUMINITA ENACHE (University of Calgary, Canada)
Prof. MAGDALENE ROSENMOELLER (IESE Business School, University of Navarra, Spain)

Economics
Prof. FRANCESCO MOSCONE (Brunel University London, UK)
Prof. ELENA PIZZO (University College London, UK)

Quantitative methods
Prof. SOPHIE DABO (Université de Lille, FR)

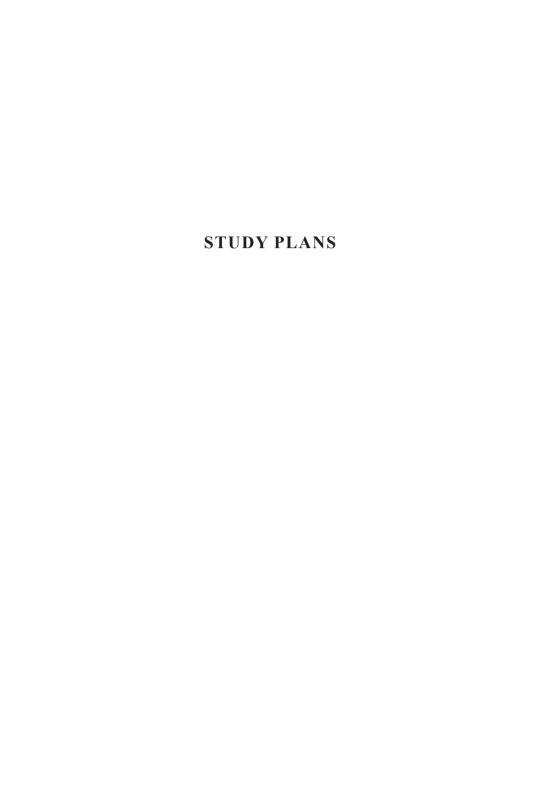*Law*
Prof. EVA VILLARREAL PASCUAL (Inter-American Commission of Women - Organization of American States, USA)

Public health
Prof. GIADA SCARPETTI (TU Berlin, Germany, and European Observatory on Health Systems and Policies)
Prof. NUNO MIGUEL DE SOUSA LUNET (University of Porto, Portugal)

STUDY PLANS

M.Sc. DEGREE IN

Healthcare management (class LM-77)

Coordinator: Prof. Gilberto Turati

The M.Sc. degree in Healthcare Management (HeMa) is designed for students interested in pursuing a career in the healthcare sector, in both public and private organisations. The M.Sc. degree is structured to achieve a good balance between economics, management and statistics, the three core-areas of study. An important feature of the HEMA programme is that all courses are shared between a resident faculty member and a visiting professor from abroad. This will give students the opportunity to learn in a truly international, multidisciplinary and dynamic environment. The programme is characterised by an extensive use of case studies as a way to introduce students to a wide range of practical management issues in healthcare organisations. In addition, HEMA students will be part of a prestigious University that – in addition to a strong reputation in research and education – holds a strong set of values that considers the integrated and balanced development of each community and of each citizen at the center of the healthcare system.

Main Learning Objectives

Students enrolled in the HEMA programme will acquire knowledge about:
– how to manage quality and operations, human resources and technological innovation in healthcare organisations;
– how to use accounting information to take economic decisions;
– how to interpret the evolution of healthcare spending and the functioning of healthcare markets;
– how to use the most advanced methodologies in Health Technology Assessment;
– how to use cutting-edge statistical and econometric tools for analysing economic and epidemiological data.

Students will apply this knowledge to discuss practical cases during their classes and to participate actively to the workshops and seminars that will be organised throughout the year.

Teaching calendar

Class schedules and exams are available to the web page *https://roma.unicatt. it/polo-studenti-e-didattica-programmi-dei-corsi-e-orari-delle-lezioni*

Admission to the M.Sc. degree courses

The curricular requirements and qualifications needed to access the master's programmes are defined by the Admission regulations available online on the individual programme pages (*https://www.unicatt.it/en/programmes/gradu-ate-degree-programmes/healthcare-management-roma/admissions-and-enrol-ment.html*); students can check online whether they have the necessary curriculum requirements to enrol by accessing the course enrolment portal and filling in the data requested.

Registration/pre-enrolment on the master's courses takes place from June onwards, with deadlines as per the admission regulations.

STUDY PLANS

For students attending the first year in a.y 2025/2026

Theology courses: the curriculum of the two-year master's degree will be supplemented with a 30-hour semester-long course, made up of seminars and/or single-subject lectures, the topics of which will depend on decisions made by the Theology teaching board (see also the chapter "*Theology Courses*" on page 51 of this Guide).

First year

FALL SEMESTER	CFU/ECTS
- International law and health	8
- Statistics and big data	8
- Innovation Management in Health and Social Services	8
- Quality and operation management	8
SPRING SEMESTER	
- Human Resource management in complex organizations	8
- Epidemiology	8
- Health economics	8
- Financial and management accounting in healthcare	8

Second year

Fall semester	Cfu/Ects
- Comparative Analysis of Healthcare Systems	8
- Pharmaeconomics and Health Technology Assessment	8
- *One* elective course among:	8

    Health econometrics and program evaluation
    or Ethics, medicine, and public health[1]

Spring semester	
- Planning and control in healthcare	8
- Internship ("Stage di progetto")	
or Stage digital	
or one course among the elective courses	8
- Seminar on the Italian National Health Service	
or Italian for foreign Students	4
- Final dissertation	12

Note

[1] The course is borrowed from the Master's of Science Degree in Medicine and Surgery. The course is to be confirmed for the A.Y. 2025/2026.

Career opportunities

The M.Sc. degree programme offers knowledge, skills and competencies particularly valuable to pursuing careers in organisations such as:

– Healthcare providers like hospitals, nursing homes and local health authorities
– Companies supplying medical equipment and devices, pharmaceuticals and biotechnologies
– Governmental agencies in charge of regulating the healthcare system
– Insurance companies
– Consulting companies

Important things to know

High social and economic impact. Healthcare is an increasingly important sector in world economies, absorbing growing shares of GDP. It influences the quality of life of all citizens. In addition, it is characterized by a fast growing technological innovation.

Growing career opportunities. The healthcare sector is changing at a rapid pace. Understanding and anticipating future challenges will be key to guarantee sustainability. This requires strong management competencies and skills.

Leading institution. Università Cattolica del Sacro Cuore has invested extensively in the area of healthcare management in the two past decades. Several departments host academic researchers with a strong international reputation active in the areas of Health Economics and Management. The Post-Graduate School of Health Economics and Management (ALTEMS) and specific research centers, like the Center for Healthcare Management (CERISMAS), are also active in academic research, consultancy, and executive education on these topics.
The Post-Graduate School of Health Economics and Management (ALTEMS) and specific research centers, like the Center for Healthcare Management (CERISMAS), are active in academic research, consultancy, and executive education.

On-campus teaching hospital. The Healthcare Management programme benefits from the partnership between the School of Economics and the School of Medicine and Surgery, as well as the close relationship with the Policlinico 'Agostino Gemelli', one of the largest hospitals in Italy. This on-campus teaching hospital is a place where students can experience in practice what they have discussed during their classes.

Project Internship

A student enrolled on a M.Sc. degree programme opting for a project internship to which the Faculty awards credits is required to adapt to the constraints (duration, location, etc.) inherent in the project internship.

How to find a project internship
The choice of a project internship is made through the student's indication of at least one subject area of interest, against which the training and guidance project with the company (host organisation) will be shaped.
The student is proactive in seeking the project internship through the channels offered by the University, or freely and autonomously through other channels. In any case, the internship must be approved, in accordance with the procedures set out in the following points.

Modalities to carry out a project internship
The implementation of project internships consists of the following steps:

1. Project internship application
   Students must submit the project internship application in the manner communicated by the University Tutors via the iCatt portal. Meetings are planned from May onwards to inform students about the possibility of project internships.

2. Requirements for submitting an application and carrying out a project internship
   Students who have acquired at least 48 or 72 ECTS, in relation to the deadline for submitting project internship applications (see point 4 below), may submit an application and carry out a project internship.

3. University credits awarded
   The project internship is awarded **8 ECTS.** The project internship may not last less than **three months full-time (or 2 months full-time for the 6 ECTS internship).**
   Each Area Referent lecturer may define a minimum duration of over three months, according to the specific requirements of the project internships in each area.
   Students are required to check in advance the minimum duration set by each area.

4. Deadlines for submitting project internship applications
   Once the minimum requirements set out in point 2 have been met, the student may submit a project internship application. For each academic year, the deadline for submitting project internship applications is
   – 30 September for those who have acquired at least 48 ECTS
   – 31 March for those who have acquired at least 72 ECTS

5. Assessment of applications
   During the months of October and April of each academic year the Internship Commission, with the collaboration of the Offices, draws up a list of candidates meeting the requirements for the project internship.
   Applications are conditionally approved. If, upon verification by the Offices, the student does not meet the requirements set out in point 2 above, the internship may continue but will be recognised as having 0 (zero) ECTS.

6. Activation of project internships
   The Commission evaluates and approves the project internships proposed by students on the basis of the student's university curriculum and considering the offers available. The Commission has full discretion in approving project internships for students who have applied. The Commission delegates the University Tutor to manage the activation of the internship in collaboration with the Internship & Placement office.
   The Commission approves the project internships after publication of the list of applicants meeting the requirements for project internship activation. Prior to publication, internships with a start date on 1 September and on 1 March will be activated with reserve.
   Once a curricular internship with ECTS is approved by the Referent lecturer, the procedure cannot be interrupted and the process will continue on the basis of the approval received, nor can the procedure be activated for another internship with ECTS.

7. Monitoring and updating
   The student is required to update the University Tutor on the progress of the project internship experience to enable verification of correspondence with the programme of activities. The University Tutor may contact the Company Tutor in order to coordinate any "path" adjustments. In addition, the student is required to keep a diary of the hours spent at the company.

8. Conclusion of the project internship
   At the end of the project internship, the student is required to send by e-mail to the university Tutor and the Referent lecturer
   – the "Project internship evaluation form" (in pdf format) by the company Tutor;

– the "Final report" on project internship activity (following the instructions given on Blackboard in the "Project internship" section activated for each academic year);
– the "Monthly Presence Report" certifying the hours of presence at the company. Incomplete documentation will result in not recognising project internship performance.

9. Recognition of the project internship
   The Area Referent, having seen and considered all the documents referred to in point 8, and having consulted, where necessary, the Company Tutor and University Tutor, proposes to the Project Internship Commission an evaluation in thirtieths of the internship experience, based on the "Final Report" submitted by the intern, according to objective criteria relating to project coherence.
   The Internship Commission then awards the student a final mark in thirtieths.
   The final report is a separate product and does not overlap with the final dissertation.
   The student may also link the dissertation to the project internship experience, with a view to continuity and integration of learning.

Failure to have the project internship recognised will result in the student having to include the 8 ECTS course in their curriculum.

Internships abroad
Università Cattolica encourages students to do their training/internship programme abroad. There are three types of internships that can be pursued abroad:
– **internships set up by foreign companies**: can be viewed on *http://step. unicatt.it*;
– **internships proposed by students**;
– **internships** based on the agreements set up by the **Cattolica International Office** and available on the *Wea International* portal: *http://ucscinternational.unicatt.it/ucsc-international-programmi-ucsc-network-internships-abroad*

The procedures to set up the internship and receive recognition for the ECTS and the activities completed abroad are outlined at point 2 and following.
For the last type of internship listed above, the notification that the students' application has been accepted will be formalised through a *confirmation letter* by *Wea International*

Stage digital

Project and target

The *Stage Digital (SD)*, created by UCSC (Università Cattolica del Sacro Cuore) Faculty of Economics in partnership with Guilds42 (a platform offering **250 learning paths to get MOOC certifications** in the digital field – website: *https:/www.guilds42.com/*) offers students the opportunity to acquire the competences they need to make use of the main tools adopted by companies in the digital field (e.g. Google Analytics, Salesforce, Shopify, Hubspot, SEO) and apply them to a project for a company.

The SD, corresponding to 8 ECTS, is addressed to graduate students who have achieved at least 48 ECTS by the beginning of the Digital Stage (March 2026)

The SD is divided into two parts:

– The **Percorso di Certificazione** (Certification Path) in the Digital field, aimed to help students acquire a coherent cluster of digital skills meeting the requirements set by market leaders as Shopify, Hubspot, Google, IBM, Oracle, Microsoft, Amazon, SAP, Kaggle.

– The **Percorso di Bottega** (Workshop Path), consisting in a project to be carried out in a company in groups of 5-6 students

Duration

The SD has a minimum duration of 3 months. The minimum 12 weeks are structured as follows:

– 4 weeks for the first Cluster of UCSC certifications

– 8 weeks for the *Bottega* (Workshop) and the second Cluster of UCSC certifications

– The minimum number of hours of training (Cluster 1 + Cluster 2) will be 250-300.

UCSC streams and clusters

The Streams for the 2025/26 academic year are listed below:

Stream 1 – Business development

 Cluster 1 (150 hours) – *Lead Generation* (Google Analytics - Content Marketing - Social Media - Inbound Marketing - SEO Certification Course)

 Cluster 2 (150 hours) - to be chosen from among *Digital Marketing - Data Science – AI & Machine learning - Project Management*

Stream 2 – CRM & E-Commerce

 Cluster 1 (150 hours) – *CRM & E-Commerce* (Hubspot - Ecommerce Marketing - Amazon eCommerce Management - eDock Fundamentals - Shopify)

 Cluster 2 (150 hours) to be chosen from among: *Business development - Data Science – AI & Machine learning - Project Management*

Timing
- Deadline for application: 30th November 2025
- Students' selection and admission: December 2025
- Starting date: Semester 2 A.Y. 2025-2026 (March 2026)

Assessment
The overall assessment, expressed out of 30, will take into account the results obtained by the participants in both the certification and the workshop courses, the consistency of the path followed and their commitment.
The overall assessment will be determined by the combination of the following components:
1. Individual assessment of the overall Certification Course (in both phases of the DS). This is calculated automatically by the Guilds42 platform through metrics assigning a score to each course based on its difficulty and duration;
2. Individual assessment of the work carried out by the student in the Workshop, completed by the Guilds42 representative (Master of Arts);
3. Individual assessment of a *reflection paper* in which each participant will have to analyse with a critical and reflective approach the processes and dynamics of personal learning that emerged from the two phases of the DS (promotion of competences through the certification process, specific activities and tasks assigned in the workshop, understanding of the ethical issues related to the use of technologies, management of relational aspects with partners).

Contacts
UCSC Coordinator: Dr Marco Minciullo (*marco.minciullo@unicatt.it*)
Blackboard: 2025-CJS208-25370 STAGE DIGITAL (2025-2026)

Final dissertation

This section contains general information on the final examination. Operational indications and precise deadlines will be made known to students through official channels, faculty notice boards, Blackboard, *iCatt,* as well as on the Faculty's web page at the following address: *https://studenticattolica.unicatt.it/procedure-requisiti-e-scadenze-economia-lm*.

The final examination for the M.Sc. degree programme consists of the writing and discussion of a written dissertation on a topic previously agreed upon with the professor.

The final M.Sc. degree examination is agreed upon by the student with a lecturer of the degree programme (thesis supervisor), who assumes responsibility for guidance during the course of this educational activity.

The final examination consists of the presentation and discussion of a written dissertation (thesis). The discussion of the thesis takes place in front of an appointed committee comprising the supervisor and a co-supervisor.

An original contribution

The originality and autonomy of the dissertation required for M.Sc.degree programmes means that the quality of the dissertation work must be verified on the basis of two fundamental profiles:

– an ability to independently develop an advanced and sufficiently articulate research topic in the formulation of research questions;
– a written research work that shows   a) correct use of sources, data and methodologies; b) the student's ability to develop lines of analysis and autonomous judgment based on the sources used; c) a good command of the results obtained in the literature on the subject.

Theses that are merely descriptive and reduce themselves to a sort of simple repetition of what has been published on certain topics, therefore lacking the traits of originality that must characterise the candidate's work, are not consistent with the M.Sc. degree programme. The thesis is defended before a special Committee, which includes the Thesis supervisor and a co-supervisor. The final dissertation of the M.Sc. degree programme is assigned a value of **12 ECTS**, and it is therefore crucial and a matter of absolute priority that the supervisor defines criteria that are explicitly selective and rigorously employed from the very first stage of assessment of thesis proposals, consistent and well aligned with the profile outlined herein.

Three different types of dissertations

The conditions mentioned above may give rise in practice to three different types of research:

– "Survey/scoping review" dissertation: it is characterised by an appropriate use of sources and methodological tools, both from the scientific literature and from publications. The candidate's contribution is mainly realised in an adequate capacity of knowledge selection, of selective recourse to sources, and in grasping and representing open problems and critical issues related to the state of knowledge on the subject.

– Empirical or applied thesis: the knowledge or empirical evidence that the thesis work has initially gathered is then synthesised and reworked and then suitably used for an autonomous and specific activity of analysis in the field. In this type of thesis, particular attention is paid to the adequacy and methodological rigour of the survey and analysis techniques used and then to the student's ability to develop independent interpretations of the theoretical and applied problems encountered in the analysis.

– Thesis that is partly the product of an internship or traineeship, which the student may undertake specifically for the purpose of collecting material for the "Thesis" (so-called Curricular Thesis Internship), which does not, however, offer training credits. In this case, the following conditions must be met:

a. that the internship is aimed at a specific activity with a professional content;

b. that the internship activities on the one hand and the thesis on the other are clearly distinguishable, consistent with the different purposes they are intended to serve.

Graduation Sessions

Information regarding deadlines for the graduation session of a.y. 2025/2026 will be made available to the students through the webpage *https://studenti-cattolica.unicatt.it/laurearsi-procedure-requisiti-e-scadenze* and also through *iCatt* page.

Degree curriculum and elective courses

Students enrolled in year 1 are expected to:
– submit their degree curriculum;
– select their elective courses.
Further information on how and when to submit a degree curriculum will be made available by means of specific communications using official channels (online noticeboards, *iCatt* website, etc.).

Selection procedure and notes
The definition of the degree curriculum and the elective courses is compulsory. The students who, for some reasons, wish to select exams other than the ones proposed will have to request the authorisation of the Coordinator of the Degree Programme.
If the minimum number of enrolled students is not reached, the course may be cancelled. In this case, the students involved will receive a communication explaining how to modify their selection.
With regard to year 2, students will be allowed to replace one of the courses of their choice with an internship only if they meet the requirements described above. If students are not accepted for the internship because they lack these requirements, they will have to select another elective course, among the ones that have been confirmed, with no late payment fees, according to the procedures and the deadlines specified by the Student Services Centre.

Alphabetical list of the courses on the master's degree with the relative subject sector code

The *subject sectors* were created in response to the need for clarification and simplification, leading to (with numerous legislative interventions) the grouping of all the subjects taught in Italian universities into sectors, and the attribution of a code and title to each. The titles derive from the most representative subject in the sector (e.g. *Italian Literature*, *History of Law*), with all other similar subjects and courses grouped under the same category.

Degree courses are structured with reference to the subject sectors. Therefore, knowledge of the subject sector that programmes relate to can be useful to students who wish to check whether credits from a particular programme will be valid in another, for example.

Healthcare Management

Comparative Analysis of Healthcare Systems	MED/42
Epidemiology	MED/42
Ethics, medicine, and public health[1]	MED/42
Financial and management accounting in healthcare	SECS-P/07
Health econometrics and program evaluation	SECS-P/05
Health economics	SECS-P/03
Human Resource management in complex organizations	SECS-P/10
Innovation Management in Health and Social Services	SECS-P/08
International law and health	IUS/04
Pharmaeconomics and Health Technology Assessment	SECS-P/01
Planning and control in healthcare	SECS-P/09 e SECS-P/07
Quality and operation management	SECS-P/07
Statistics and big data	SECS-S/01

NOTE

[1] The course is borrowed from the M.Sc. Degree in Medicine and Surgery. The course is to be confirmed for the A.Y. 2025/2026.

COURSE PROGRAMMES

Course's syllabi can be consulted by accessing the following section of Università Cattolica website:
http://programmideicorsi-roma.unicatt.it.

1. Epidemiology

Prof. Antonio Giulio de Belvis; Prof. Nuno Miguel De Sousa Lunet

COURSE AIMS AND INTENDED LEARNING OUTCOMES

The course is aimed to provide students the quantitative dimension of health through the principles and methods of modern epidemiology in order to make them able to design and carry out epidemiological studies, to correctly read them and interpret data. Furthermore, the course will give some insights into specific issues of applied epidemiology.

COURSE CONTENT

1. *Introduction to epidemiology*
    – Definition and scope of epidemiology,
    – Epidemiology and public health;
    – Managerial epidemiology
    – Determinants of health

2. *Measures of occurrence: main concepts*
    – Proportion and ratio,
    – Prevalence and incidence;

3. *Measures of association*
    – Absolute measures,
    – Relative measures,
    – Attributable and impact measures;

4. *Principles of study design*
    – Case-control studies: aims, design and conduction, limits and strengths,
    – Cross-sectional studies and ecological studies: aims, design and con-duction, limits and strengths,
    – Cohort studies: aims, design and conduction, limits and strengths,
    – Experimental trials and quasi experimental studies: aims, design and conduction, limits and strengths.

5. *Bias*

6. *Confounding and effect modification: main concepts*
    – Analysis of confounders and effect modifiers;

7. *Standardization*

8. *Systematic review and meta-analysis*

9. *Exposure assessment*

10. *Study of an epidemics*

11. *Evaluation of screenings, diagnostic tests and study results.*

12.*Epidemiology in Continuous Quality Improvement and perfomance assessment in healthcare organizations*

At the end of the course students should:

1. have acquired the knowledge and understanding of the main measures of occurrence that concern the health of the populations, the health risk of the populations and the association measures that link the exposure to the effect of population health;
2. be able to know how to read and interpret epidemiological studies, meta-analysis, epidemiological reports, they should have acquired the skill to interpret the documents drawn up by the main research institutes with critical analysis of the results;
3. have developed useful skills to independently make choices on the use of measures to be used in the epidemiological field;
4. know how to deal with issues concerning the quantitative aspects of population health;
5. have acquired a rigorous and essential language that allows them to communicate clearly and effectively the knowledge acquired in the epidemiological field

READING LIST

KATZ DL, ELMORE JG, WILD DMG, LUCAN SC. J*ekel's Epidemiology, Biostatistics, Preventive Medicine, and Public Health*. Elsevier; 2014.

FLETCHER RH, FLETCHER SW, FLETCHER GS. *Clinical Epidemiology: The Essentials*. LWW; 2012.

ROTHMAN KJ. *Epidemiology: An Introduction*. Oxford University Press; 2012

TEACHING METHOD

The format of this course is a combination of lectures, case discussions, and readings. We will employ the following teaching methods:

(a) Readings from textbooks: To provide basic structure, concepts and techniques.

(b) Readings from journals: To augment the textbooks and provide more rigorous intellectual foundation.

(c) Lectures/Classes/Discussions: To create a coherent framework of studying the source material; to give students a chance to ask questions and clarify their understanding.

(d) Case studies: To apply what has been learnt to real life situations.

Active student participation is essential in the classes. In the classes, the lecturer will introduce the topic/case/experiment/exercise and lead the discussion. Pre-assigned reading of cases and exercises is essential: students are encouraged to self learning, to present pre-assigned material and lead part of the discussion in the class group.

Practicals and group activities.

ASSESSMENT METHOD AND CRITERIA

There are no intermediate tests.

The final mark will be based on a written test through multiple choice items and open ended questions investigating the main course contents.

NOTES AND PREREQUISITES

There are no specific prerequisites for this course.

Office hours

For both lecturers, receptions continue to be held either in person in Room 536 on the 3rd floor of the Faculty of Economics or remotely, upon request of appointment by email:

Professor A.G. de Belvis: email to antonio.debelvis@unicatt.it.

Professor N. M. De Sousa Lunet: email to nunolunet@gmail.com.

2. Financial and management accounting in healthcare
Prof.ssa Elisa Raoli; Prof.ssa Luminita Enache

COURSE AIMS AND INTENDED LEARNING OUTCOMES

Upon completion of the first module, students are expected to:
– Have learned the primary principles and methods of financial accounting and be able to apply them to the recording of transactions and creation financial statements.
– Be able to evaluate financial reports and make recommendations to internal and external users.
– Analyze how financial statement elements (assets, liabilities, equities, revenues, and expenses) are used in communicating information.
– Prepare accurate financial statements.
– Explain why judgment and interpretation are required to analyze, report, and use financial data.
– Have a proven ability to analyze, interpret, and evaluate financial statements for the purpose of understanding an organization's operating and

financial performance and making decisions regarding the provision of capital.
– Have an appreciation of the larger context of financial reporting (beyond rules and procedures).

Upon completion of the second module, students are expected to have the requisite knowledge and competency to apply the following cost accounting tools and techniques:
– Knowledge of the contents of the IAS 1 and more specifically of the Balance Sheet and Income Statement structure
– Analyzing cost/volume/profit relationships by healthcare product or service.
– Conducting break-even analysis.
– Implementing the activity-based costing technique.
– Overview of the budgeting process.
– Analyzing annual economic and financial performance of companies belonging to the pharmaceutical industry.
– Forecasting financial, operational results and planning for the necessary corrective actions to improve performance, both in the short and long-term.

COURSE CONTENT

The first module will cover the following content (for further details see Appendix A on page 3 and 4.)
– Introduction and Fundamentals of Financial Accounting (Accounting as a decision-making tool, the accounting equation, the transaction analysis, the adjustment and closing process, construction of financial statements).
– Ability to read key Financial Statements.
– The relevance of Cash Flow Statement, the Auditors' Report, the notes to the Financial Statements.
– The Investments and Consolidated Financial Statements
– Financial Statement Analysis using key financial ratios.
– Managing the Revenue Cycle in the Healthcare Organizations.

The second module will cover the following content:
– Managerial Accounting Basics & Cost-Volume-Profit Analysis.
– Overheads Cost Allocation and Activity Based Costing (TDABC).
– Cost calculation
– Operating Budgets and Financial Budgets overview.
– Performance analysis, financial and economic equilibrium

READING LIST

First module:
– *Financial Accounting*, 8th Global Edition, Libby, R., Libby, P.A., Short, D.A., MaGrawHill Education, On-line educational material.
– *Healthcare Finance: An Introduction to Accounting and Financial Management,* Gapenski, Louis C., 6th Edition, AUPHA Press/Health Administration Press, 2016.

Second module:
– Gapenski, Louis C., *Healthcare Finance: An Introduction to Accounting and Financial Management*, 6th Edition, AUPHA Press/Health Administration Press, 2016.
– Pink, George H., and Paula H. Song, *Gapenski's Cases in Healthcare Finance*, 6th Edition, AUPHA Press/Health Administration Press, 2018.

TEACHING METHOD

Students are expected to make an effort to get familiar with the assigned readings prior to the relevant class session as well as keeping up with the homework throughout the duration of the course.

Class participation is particularly important. Students will not receive participation credit solely for attending class. Active participation includes: responding to questions, being engaged during class discussion, and keeping a professional and respectful behavior at all times in the classroom.

The second module builds on fundamentals of financial accounting concepts and financial statement analysis tools to expand students' competencies and skill sets for managing healthcare costs and strategic decision-making. Students will focus on management accounting tools and techniques. Through real case studies, students will learn how to interprete, analysis and forecast costs and revenues in a variety of organizational settings, such as managed care organizations, multi-specialty medical groups, and pharmaceutical companies. The aim is to provide the cost management tools and techniques to improve efficiency (cost per unit) and effectiveness (goal achievement). The takeaways will be cost analysis techniques that can be used by healthcare managers to improve organizational performance, both in the short and long- term.

ASSESSMENT METHOD AND CRITERIA

The final exam is 120 (2h) minutes long.
Attending students will earn their grade based on the following activities:
Final Exam (written)   100%

3. Health economics

Prof. Gilberto Turati, Prof. Francesco Moscone

COURSE AIMS AND INTENDED LEARNING OUTCOMES

Health economics is a growing field of studies in economics concerned with the use of economic concepts to analyze issues related to health and health-care. The goal of this course is to discuss selected topics within this field which are of utmost relevance for the management of healthcare organizations. The course will cover both micro- and macroeconomic issues. At the macro level, attention will be paid first to explaining cross country variation in health spending, with a particular emphasis on the role of productivity and the role of technology and innovation. At the micro level, the focus will be on the market for hospital services, which still represent about half of the healthcare spending in many countries. On the demand side, the course will analyze the choice of patients and the importance of information and networks. On the supply side, the course will focus on organizational design: at the firm level, discussing the role of not-for-profit hospitals as compared to physicians' cooperative, for-profit clinics, public hospitals; at the market level, analyzing the quasi-market model and the role of incentives provided by different payment systems; at the sub-national level, providing a discussion of the implications of federalism and decentralization. Market outcomes will be finally considered in the light of inefficiency in spending and inappropriateness in the services provided. The discussion for all the topics will couple theoretical arguments with the analysis of real cases useful for the management of healthcare organizations.

After the course the student:

- Will have knowledge of the determinants of healthcare spending and their role in explaining the observed evolution of public and private expenditure.
- Will have knowledge of the economic arguments relevant for the analysis of the demand and the supply of hospital services.
- Will be able to apply the knowledge acquired during the course for critically discussing real world cases related to patients' choice, the organization of hospitals, the organization of the market for hospital services, the decentralization of healthcare regulation to sub-national governments.
- Will be able to apply the knowledge acquired during the course to evaluate the efficiency and the inappropriateness of healthcare provision at different levels of aggregation.
- Will be able to correctly interpret the outputs of empirical analyses and to discuss the use of appropriate statistical tools.
- Will be able to use economic language and concepts in their analysis and reports.

COURSE CONTENT

The course is designed as an advanced course in health economics for students interested in becoming professional managers in the healthcare industry. The program is divided in four broad parts:

Part I: Understanding healthcare spending
The economic approach to the analysis of health and healthcare
– Inequalities in healthy life years across countries
The determinants of healthcare spending
– Observing the dynamics of expenditure
– The role of innovation and technology

Part II: The demand side of the market for hospital care
The traditional approaches
– The Grossman model: health shocks and the demand for care
Information and networks
– Availability of information and patients' networks
– The quality of care

Part III: The supply side of the market for hospital care
The hospital as a firm
– Not-for-profit providers
– Incomplete contracts and a theory of the ownership of the firm
– Mixed oligopolies and beyond
The hospital as a key market player
– Incentives in the quasi-market model
– The behavior of different types of providers, the role of competition and of information provided to prospective patients
Decentralization and fiscal federalism
– The regulation of hospitals at the sub-national level
– The differences across sub-national systems

Part IV: Inefficiency and inappropriateness
How to evaluate outcomes
– Methodologies to assess inefficiency and inappropriateness
– DEA and stochastic frontiers
Case studies
– De-hospitalization
– C-sections

READING LIST

Each topic is covered by a list of selected references (mostly scientific journal articles) that will be provided by instructors and discussed during the lectures. Additional readings will be taken also from:

B.H. Baltagi-F. Moscone (eds.) (2018), *Health Econometrics, Contributions to Economic Analysis*, Emerald Publishing.

Costa-Font, J., Turati, G., Batinti, A. (2020). *The Political Economy of Health and Health-care: The Rise of the Patient Citizen*. Cambridge: Cambridge University Press.

S. Glied-P.C. Smith (eds.) (2011), *Oxford Handbook of Health Economics,* OUP.

TEACHING METHOD

Lectures and discussion of case studies.

ASSESSMENT METHOD AND CRITERIA

Evaluation is based only on a written exam lasting 60 minutes. The exam is made of three sections. Section 1 comprises 10 multiple choice questions on basic concepts discussed during the course. Each correct answer is worth 1 point; each wrong answer provides a penalty of 0.25 points. Sections 2 and 3 are open questions and are thought to test the ability of students to apply the knowledge acquired during the course and to communicate using key economic concepts what they have learned. In marking exams, instructors will evaluate the completeness and accuracy in the answers.

NOTES AND PREREQUISITES

Students are required to have basic knowledge of key concepts in microeconomics and key concepts in statistical inference and regression analysis to fully understand the arguments discussed during the course.

Students are kindly asked to refer to the Blackboard website for updated information and additional teaching material related to the course.

Office hours
The calendar for the office hours is published on the official personal website of the instructors. All the details will be made available on Blackboard at the beginning of the course.

4. Human resource management in complex oragnizations
Prof.ssa Irene Gabutti; Prof.ssa Magdalene Rosenmoeller

COURSE AIMS AND INTENDED LEARNING OUTCOMES

Healthcare organizations are characterized by the central role of human capital in determining quality of care and financial performance. The course aims at providing students with a good knowledge of HRM processes and tools, with a specific focus on their implementation in the healthcare sector. The objective of the course is to develop both theoretical knowledge and practical skills

connected to some of the most effective HRM tools used in complex organizations. Moreover, it is aimed at understanding the ways in which innovation affects the health care sector and in particular the workforce, and how it can best be managed.

After this course, students will have an extensive knowledge of the role of the HRM function within healthcare organizations and will be able to match a number of HRM tools and procedures to the function's (and organization's) strategy. He/she will be able to assess the "maturity" of HRM functions and be aware of the coherence between its objectives and its actions. Moreover, students will simulate the use of tools aimed at managing competencies and driving performance, thereby acquiring practical ability in concrete and "real-life" situations. Students will be invited to develop HRM strategies and present them to an audience, thereby developing their communication and persuasion skills.

COURSE CONTENT

The course is structured into two parts:

PART I (PROF. IRENE GABUTTI)
Introduction; From strategy to people; Medical management and clinical leadership; Assessing jobs, persons and performance; Qualitative and quantitative methods; Pay for performance in medicine; What is a "competence model"?; From job families to professional roles; New competencies for HC professionals: team work; Organizational change; the role of individual.
Final presentations and closing remarks.

PART II (PROF. MAGDALENE ROSENMOELLER)
A complex sector and complex care organizations; The Health Sector and the (Changing) Role of Professionals; HHRR Policy: Needs, Strategy and Planning; The European Context for Health Professionals; Knowledge Management; Continuous Education / Role Professional Journals; Realizing the Technology Revolution in Health Care; IT Technologies: changing paradigm, changed skills set; Integrated Care: Implementation of Innovation; Integrated Care changing role for HHRR; Managing for Quality; Commit to Excellence / Employee Satisfaction;The HHRR Managers Tasks; Career Development – Professional Growth; Leadership in Innovation and Creativity; Bases of Leadership / Clinical Leadership; Creative Teams / Design Thinking; Report Presentations. Conclusions Wrap Up.

READING LIST

References

CRAWSHAW J, BUDHWAR P, DAVIS A. *Human Resource Management Strategic and International Perspectives*, Sage, London (2019) [Chapters 1, 2, 7, 9, 10, 11, 14]

"*Characteristics & Qualities of a Personnel Manager*", Bob Kelly, Demand Media
"*The Role of HR Manager in Health Care*", Alejandro Russell, Demand Media
Case Study HBS: *"Development and Promotion at North Atlantic Hospital"*
Doctors and managers: a problem without a solution? (Bmj n. 326, 2003)
What doctors and managers can learn from each other? A lot (Bmj n. 326, 2003)
Case study HBS: *Hospital Clínic de Barcelona*
Case Study HBS: *"Performance Management at Vitality Health Enterprises,* Inc"
"Successes and Failures of Pay for Performance in the United Kingdom", NEJM 2014.
"*Allied Health Competency Model*"
"Job families and other taxonomies"
Four Habits of High-Value HealthCare Organizations, R. Bohmer, NEJM, 2011
Assessing future health workforce needs. Gilles Dussault et al. Policy Brief, 2010
Action Plan for the EU Health Workforce, EC, SWD(2012) 93 final
Perspective on the Professional Qualification Directive. Eurohealth, 17,4 2011
HBS Intermountain Health Care (2013)
IESE P1102 EN - TMC – Telemedicine Clinic
IESE P1148E *Innovating in the Basque Country. Moving to Chronic Care*
Think integration, think workforce: Three steps to workforce integration, Centre for
    Workforce Intelligence, 2013
Why Hospitals don't learn from Failures, ATucker et al Californian Rev.Management
    2003
10 Free (Or Very Inexpensive) Ways To Engage Staff, Quint Studer
Chapter 8 & 9 Recruitment, *Interviewing, and Selection Strategies / Maximizing Per-
    formance Management and Evaluation. JE Pynes - Human Resources Management
    for Health Care Organizations: A Strategic Approach.* Jossey Bass 2012
Case Pina Bausch: Leadership as collective Genius (ESMT 412-0132-1)
NEJM, Leading Clinicians and Clinicians Leading, R. Bohmer, 2013
Leading Teams (MSH Managers Who Lead, 2008)
Further articles, case studies and book chapters will be provided and shared through
    Blackboard.

TEACHING METHOD

Short academic lectures are sided with case study discussions, interactive sessions and laboratories. Regarding case studies, students are asked to read assigned documents in advance, before lessons. Students are also asked to work in groups of 5-6 people and to prepare case discussions of about 30 minutes.

Ten hours of the course are dedicated to a specific laboratory in which students, organized in groups (5-6 people), will have the chance to design job profiles under the guidance of the teacher. Groups are suggested to work during free time and will provide a formal power point presentation.

ASSESSMENT METHOD AND CRITERIA

Students can chose between a multiple assessment route and a single assessment route.

Multiple assessment route (for attending students only):

Part 1:

Written test (multiple choice and open questions) - 20% of the total mark

Assessment of group-work presentation (laboratory) - 30% of the total mark

Part 2:

Group work (prof. Rosenmoeller) - 30% of the total mark

Assessment of participation in class - 20% of the total mark

The final grade is given by the mean of the two grades assigned by the two professors.

Single Assessment route:

Written test made up of open ended and multiple choice questions. Non-attending students can be assessed through this route only and are asked to study all the material used in class as well as to study Crawshaw J, Budhwar P, Davis A. Human Resource Management Strategic and International Perspectives, Sage, London (2019) [Chapters 1, 2, 7, 9, 10, 11, 14].

NOTES AND PREREQUISITES

Students must be fluent in written/spoken English and must ready to prepare and study materials before class sessions.

5. Innovation Management in Health and Social Services

PROF. ALFREDO D'ANGELO; PROF.SSA ARIANNA ARIENZO

COURSE AIMS AND INTENDED LEARNING OUTCOMES

Building on strategic management, innovation and entrepreneurship, this course aims to provide an understanding of the trends and dynamics related to the management of innovation in the healthcare industry.

More specifically, the course will present students with frameworks and tools offered by multiple perspectives, with the aim of offering a heterogeneous set of the theoretical and practical models. Participants will apply such frameworks and tools to simulated and real case scenarios, to better understand the characteristics of managing innovation in healthcare, life-sciences and social services organizations (e.g. pharmaceutical companies, biotech firms, medical devices). The course will include the latest trends leading to digital transformation and sustainability of companies, sectors and healthcare industry.

By the end of the course, students will be able to:
– identify and interpret the main challenges faced by healthcare, life-sciences and social services organizations in the current competitive landscape;
– assess what are the main tools and skills necessary to adopt the innovation and how such organizations implement innovation models;
– understand the technological, human, economic, organizational, social and other dimensions of innovation;
– demonstrate operational knowledge of the tools and models explained during the course and apply them to real world contexts (e.g., private firms or public hospitals);
– appreciate the relevance of managerial and innovative solutions adopted by healthcare, life-sciences and social services organizations;
– develop a strategic innovation and entrepreneurial mindset to innovate in healthcare.

COURSE CONTENT

The course is organized in 3 modules.

The *first module* (Module I) is about the main issues of innovation and R&D management in the healthcare sector (e.g., pharmaceutical companies, biotech firms, medical devices). It will focus first on the basics of innovation and technology management, applied to healthcare, and then on emerging health technologies, their development and diffusion. Finally, it will cover innovative technology-based business models to deal with digital transformation and sustainability.
This module should provide students with the theoretical knowledge base for better appreciate the other two modules. The module will include theoretical lessons, practical exercises, discussion of real-world case studies, and the testimonials for key player in the industry.

The *second module* (Module II) deepens on healthcare organizations and the relationship with their external environment. The module addresses the classical management functions demonstrated by the healthcare professional and management concepts essential for understanding the organisational environment. In addition, we will discuss the application of planning and control tools in real-life situations, as well as the importance of relationships within and outside the organisation to improve care delivery.

The *third module* (Module III) is about discovering the fundamentals practices and challenges of setting an entrepreneurial venture in healthcare, specifically digital health. This module will be delivered by an entrepreneur, and

it will include theoretical lessons and practical exercises to develop skills to assess potential threats and opportunities given by new technologies in the healthcare sector.

READING LIST

Module I
J. Barlow (2016), *Managing Innovation in Healthcare*, WSP.
Selection of readings and cases uploaded by the lecturer on the Blackboard.

Module II
Selection of readings and cases uploaded by the lecturer on the Blackboard.

Module III
Selection of readings and cases uploaded by the lecturer on the Blackboard.

TEACHING METHOD

The teaching method employed in this course drawn inspiration from the old saying "tell me and I will forget, show me and I will remember, involve me and I will understand" (Confucius).

The teaching will be characterized by frontal lessons, case studies, simulations, testimonials and group exercises.

The course may involve presentations by experts, managers and/or business owners for the purpose of better illustrating some of the issues of the course programme.

ASSESSMENT METHOD AND CRITERIA

The assessment of this course will be based on a written exam (100%) relative to the 3 modules reported above. The exam could include a short case study analysis, multiple choice questions and open question/exercises.

In special circumstances, a homework assignment could be considered as an alternative assessement option. Criteria for evaluation will become available at the beginning of the course.

There are no pre-requisites for this class.

6. International law and health
Prof.ssa Maria Chiara Malaguti; Prof.ssa Eva Villarreal Pascual

COURSE AIMS AND INTENDED LEARNING OUTCOMES

The recent pandemic teaches us many lessons. One the one side, although some international instruments on infectious diseases exist, there is not enough

coordination among states. The international organization in charge of these matters, the WHO, has limited powers and can only intervene to a very limited extent. On the other side, domestic health systems differ, are often based on different premises and standards of protection of population varies, requiring further considerations on the protection of human rights and on the role of health as a public good as a global issue. Moreover, the recent pandemic must be considered within the larger context of climate change, protection of the environment and social rights, since the concept of 'health' today has a much broader understanding. These are all matters that require international cooperation and joint efforts. Finally, the current trade system that sustains globalization strongly affects our general understanding of protection of health, and to many extents principles of free trade interfere with those of health protection.

The aim of the course is to start from the recent pandemic to delve into the global governance of health, evidencing the complexity of the issues at stake and proposing a holistic analysis of these. After the course the student:
-   Will be acquainted with all existing international instruments and organizations focusing on health.
-   Will be familiar with also WTO, OECD and other international bodies that play an indirect role on cooperation on health and influence the global governance.
-   Will know human rights approaches on health.
-   Will have acquired practice with indicators applied by international organizations assessing domestic policies.
-   Will adopt a holistic approach to health issues at international level.
-   Will be able to have a critical approach to issues at stake.

COURSE CONTENT

The course will address the issues of health and environment protection through the lenses of existing international theory and the most modern approaches on what is usually called "global law", as a concept going much beyond the analysis of the positive sources of international law (treaties and regulations). Students shall be required to read cases and understand the law in progress, as well as analyse critically concrete examples or actual reports of international organizations. Some economics, political science and theories of governance shall help in better understanding the issues at stake.

To approach global health under all the prospected angles, the course is organized in two interconnected modules. Following an introduction on the works of the WHO and the content of the SDGs in the field of health, these shall develop as follows:

a) One module, by Professor Villarreal Pascual, will address general issues on human rights norms and standards as well as indicators used to assess their impact on health policies and programs. Additionally, it will delve into an in-depth analysis of the matters above through practical exercises.

b) Another module, by Prof. Malaguti, will address issues connected to trade and investments, on the one side, and health, food safety and environment protection, on the other side. These will also include treatment of pharmaceuticals, IP and the role of innovation. In this context, also the issue of patentability of viruses will be analysed, as one of the most urgent issues to be considered following the COVID-19 pandemic.

READING LIST

Students who follow classes on a regular basis will study on the basis of materials distributed during the course and coming from different sources, in particular actual cases.

Students who do not follow classes on a regular basis shall read the following text, which is in any event a reference textbook for all students who want to have a complete and systematic understanding of the matter and supplement materials received in the course.

Lawrence O. Gostin, *Global Health Law* (Harvard University Press, 2014).

TEACHING METHOD

Frontal lessons, case studies and discussions with students. Guests from international organizations and/or ONG may be invited to share their concrete experience with the students.

ASSESSMENT METHOD AND CRITERIA

Students regularly participating into classes will conclude each module by submitting an individual written essay. Final grades will be the average resulting from the combined scores received in the two essays.

Students not participating into classes on a regular basis will sustain an oral exam based on the reference textbook.

NOTES AND PREREQUISITES

Students are kindly asked to refer to the backboard website for updated information and teaching materials related to the course.

7. Quality and operations management

Prof. Stefano Villa; Prof. Andrea Cambieri; Prof. Paul Gemmel

COURSE AIMS AND INTENDED LEARNING OUTCOMES

General Learning Objectives:
To be able to design, operate, and evaluate health care quality management systems and operations.

Knowledge Outcomes:
– Understand why quality management is needed.
– Understand impact of clinical decision making on quality of care.
– Understand impact of administrative systems on quality of care.
– Understand the impact of ancillary processes on the performance of healthcare organizations.
– Understand approaches to measuring quality.
– Understand approaches that have been taken in quality management.
– Understand strengths and weaknesses of different approaches.
– Understand the design and management of health care operations.
– Understand how to design and control a supply chain management system.
– Understand how to create value with healthcare operations management.
- Understand the current trends and innovation in the organization of health-care productions processes

Skills Outcomes:
– Ability to apply basic tools of quality improvement such as flowcharting, fishbone diagrams, statistical process control, etc. in health care settings.
– Ability to evaluate reliability and validity of criteria, guidelines, protocols, and other decision making tools.
– Ability to apply information systems for quality measurement and improvement.
– Ability to identify and prioritize opportunities for improvement.
– Ability to determine appropriate methods of improving performance and considerations in implementing such methods.
– Ability to measure the performance of hospital patient flows logistics.
– Ability to design a supply chain management system.
– Ability to implement changes in the organization of healthcare delivery processes.

COURSE CONTENT

Health care organizations are required to provide quality health care as a competitive necessity as well as a regulatory requirement and ethical imperative. The course aims firstly to give students a theoretical framework regarding the definition and measurement of quality in healthcare.

Secondly, students will be introduced to the traditional quality improvement techniques such as regulation, credentialing, education, and to new techniques, including continuous quality improvement, system design, clinical pathways, lean thinking, and performance reports.

The course will focus particularly on operations management issues. The use of operations management techniques, extensively applied in businesses of all kinds, has also become a necessity in health care. In order for managers to improve the quality and efficiency of health care delivery, or successfully launch new services or products, they must understand the design and management of health care operations.

READING LIST

VILLA S. (2021) "*Operations Management in Healthcare: Theory, Models and Cases*" Routledge, London.

Slides, cases studies and readings available on black-board.

TEACHING METHOD

Classes consist of both lectures and discussions. Case studies will be used to introduce students to a wide range of practical operational issues in healthcare delivery.

The course is aimed primarily at those students interested in managing health care delivery processes. It will be equally valuable for students interested in careers devoted to the definition of health policies in the public and private sectors.

Finally, a good understanding of operations and supply chain management systems is becoming increasingly important for suppliers (e.g. pharmaceutical and medical devices companies) that aim to develop beneficial and lasting relationships with healthcare delivery organizations.

ASSESSMENT METHOD AND CRITERIA

For attending students, the final grade will be computed as it follows:
Individual assignment (15%)
Group work (15%)
Class Participation (10%)
Mid-term exam (30%)
Final exam (30%)

In the group works students will be involved in a project carried out at the in-campus Gemelli Teaching Hospital. Previus years students have worked, for example, on projects of (i) redesing emergency pathways; (ii) analyis of Operating Room performamce and (iii) optimization of inventories at the central WareHouse.

For non attending students the evaluation will be based on a single written exam on the whole program.

In your own interest and of your colleagues, please try to observe the following courtesy rules:

1. Arrive in class on time; do not leave early.
2. Keep your mobiles and laptops off; do not use wireless network emailing in class.
3. Minimize wandering in and out of the classroom.
4. Participate fully in class.
5. Pull your weight in group/joint work. Do not free-ride on your colleagues!
6. Hand in assignments on time. Late submissions are not accepted.

Partecipation to all classes is highly recommended.

8. Statistics and big data

Prof. Niccolò Salvini; Prof.ssa Sophie Dabo-Niang

COURSE AIMS AND INTENDED LEARNING OUTCOMES

The course aims to introduce the student to the world of Big Data. The course will be divided into two parts. In the first part (taught by Prof. Niccolò Salvini) the student will use the R language and its packages, to apply the basic statistical methods learned in a first three-years degree course. The second part (taught by Prof. Sophie Dabo-Niang) will instead be devoted to introducing statistical models and methods and machine learning approach for the treatment of large and complex amounts of data. The emphasis will be on the practical aspects of implementing the various methods and models and on the interpretation of the results. Computer laboratories using the language R will be held weekly by Prof.Niccolò Salvini.
At the end of the course the student:
– will know how to analyze structured statistical datasets through the use of the R language and the RStudio development environment.
– will know how to distinguish between structured and unstructured datasets;
– will know how to distinguish between supervised models and non-supervised models.

COURSE CONTENT

Part 1:
Introduction to Big Data and Data Science. The importance of correct data collection in the world of Big Data. Hypotheses testing on an average and on a percentage. Hypothesis testing on 2 averages and 2 percentages. Hypothesis

testing on more than 2 averages (ANOVA) and on more than 2 percentages (CHI square). Multiple linear regression model. Nonlinear regression. Regression with dummy variables.

Part 2:
Factor analysis, Clustering, Discrimination and Classification (Bionomial and multinomial logistic, kernel, general additive regression models, other supervised classification models).

READING LIST

For the logic of the statistical analysis of Big Data it is recommended the following:
Arbia, G. (2021) *Statistics, new empiricism and society in the world of Big Data*, Springerbrief in statistics, Springer Verlag.

The textbook of the course is the following:
James, Witten, Hastie, Tibshirani (2021) *An Introduction to Statistical Learning: With Applications in R*, Springer-Verlag.

TEACHING METHOD

Theoretical lectures and lab sessions on the software R and RStudio ©

ASSESSMENT METHOD AND CRITERIA

Option 1:
Optional intermediate exam on PC after week 6. In the computer lab, students will perform practical exercises using RStudio © software. If successful, the intermediate exam will account for 50% of the final grade. Final examination will be carried out with the same criteria as the intermediate test with a possible additional oral examination. Those who will successfully pass the intermediate exam, at the final exam will be tested only the second part of the course. The intermediate exam can only be used during the winter session at the end of the course, in the January and February appeals.
Option 2:
Full exam in any of the sessions planned during the year. In the computer lab, students will perform practical exercises using R and RStudio © software. Those passing the practical test in the computer lab could be called for an oral examination.

NOTES AND PREREQUISITES

Prerequisites:
–   A basic course in statistics at a bachelor level including descriptive statistics, probability, inductive statistical inference (point and interval estimation).

–   Basic notions of the language R. Students who do not possess the necessary prerequisites with the software R will be helped with *ad-hoc* sessions organized outside the official timetable in the first 2 weeks of the course.

Recommended texts for prerequisites:

For the statistical background:

Levine, J-Szabat-K. and Stephan, D. (2018) *Business Statistics*, Pearson.

For the language R:

Wickham, H., Grolemund G. (2018) *R for Data Science*, O'Reilly. Freely available on-line at https://r4ds.had.co.nz/index.html

Theology Courses

Nature and aims

The Theology courses are unique to Università Cattolica. They aim to offer purposeful, well-reasoned and organic knowledge of the contents of the Revelation and of Christian life, thereby furnishing students with a more complete education in the intelligence of the Catholic faith.

The mark achieved in the Theology exams forms an integral part of each student's curriculum and will be considered by the examining board in determining the overall mark for the degree

Degrees

Theology courses are part of the curricular study plan of the degree programmes for students enrolled at Università Cattolica.

Syllabi

For the first, second and third year of the programmes, there will be a single semester-long syllabus (12 weeks per year, three hours per week).

Thr subjects are:

Theology 1: *Fundamental questions: Christological faith and the Holy Scripture*

Theology 2: *Matters of theological anthropology and ecclesiology*;

Theology 3: *Theological questions of Christian ethics and morals*.

Students can choose their Theology course from their individual iCatt page by the deadline communicated on the same page. For students who do not enrol within this deadline, the university will proceed assigning them a lecturer.

Master's degree

The two-year Master's degree programme includes a semester-long course of 30 hours, classed by Professor Alessandro Mantini, in the form of seminars and/or single-subject sessions on different topics, according to the Board of Theology Lecturers' decisions.

The course ends with a test set by the lecturer.

Students can choose the seminar course through their *iCatt* page by the deadline communicated via the same page. For students who do not enrol within this deadline, the university will proceed assigning them a lecturer.

Lecturers and course syllabi

For information on the Theology courses and lecturers, please consult the webpage:
https://www.unicatt.it/collegio-dei-docenti-di-teologia-programma-dei-corsi-di-teologia

The syllabi of the Theology courses can be consulted by accessing the following section of the Università Cattolica website: http://programmideicorsi-milano.unicatt.it.

Administrative provisions

Enrolment rules

1. Qualifications required

Pursuant to Art. 6 of Ministerial Decree No. 270/2004, the following may enrol in the degree programmes opened at Università Cattolica:
– *State upper secondary school graduates* (five-year or four-year: final diplomas in education programmes of study).
– *holders of a foreign degree*, recognised as suitable for admission to Italian universities according to the provisions issued for each academic year by the Ministry of University and Research in agreement with the Ministries of Foreign Affairs and the Interior.

Concurrent enrolment at the university and in highly specialised artistic and musical educational programmes (AFAM)
It is permitted to simultaneously enrol in two programmes of study at the same University or at different Italian or foreign Universities, or where one of the programmes is at a University and one at the Higher Institutes of Musical and Choral Studies, in compliance with the provisions of Law No. 33 of 12 April 2022 and subsequent ministerial implementing decrees.
The simultaneous enrolment in two programmes of study is allowed provided that the aforementioned programmes do not relate to the same ministerial degree class and that they differ in at least two-thirds of the educational activities in terms of academic teaching credits.
Students interested in concurrent enrolment are required to give prior notice to the Student Centre of the relevant campus using the appropriate forms.

2. Modalities

Students who intend to enrol for the first time at Università Cattolica (Milan, Brescia, Piacenza-Cremona) must first read the specific notices "Admission procedures" on the University website (*www.unicatt.it*).

The registration application must be completed and submitted online (the submission is necessary since the application, in some parts, must be manually completed and it is also necessary to acquire the handwritten signature of the student or parent, if the student is a minor) using the *Registration Portal*, available on the University website.

In addition to filling out the registration form, it will be necessary to pay the 1st instalment of the tuition fees and university contributions, and upload all of the required-documentation:

Once registration has been completed, the University, in accordance with the procedures in force, will provide the Carta Ateneo badge.

When submitting their registration application, priests and other religious figures must submit the declaration by which the Bishop or Superiors authorise them to enrol in the University (written authorisation will be approved by the General Ecclesiastical Assistant of Università Cattolica or by a delegate).

Regarding the presentation of income documentation, the appropriate online procedure must be used, available in the *Registration Portal* or on the student's personal *iCatt* webpage.

A student who has been successfully enrolled for a year of university studies is not entitled to a refund of fees and contributions paid.

Registration on a part-time basis
Students who do not have full-time availability due to work, family, health or other justified personal reasons, may opt – at the time of registration or renewal of their current enrolment – for a study path that permits them to carry out 50% of the annual educational activities envisaged for the programme. Minor deviations can be determined by the competent Faculty Councils, taking into account the unique features of each programme of study.
A student who intends to register on a part-time basis must first express this intention, with justifications for their request, by filling in the appropriate form at the Student Centre of their campus.
This declaration of interest will be submitted to the competent educational bodies for approval and, once this is received, the student may submit a formal request for registration on a part-time basis.
All information relating to the modalities, timings and economic aspects can be found at the Student Centre of the respective campuses.

3. VERIFICATION OF THE INITIAL PREPARATION OF STUDENTS (VPI) – ADDITIONAL LEARNING OBLIGATIONS (OFA)

To better cope with their chosen university programmes, those who enrol in the first year of the degree programmes and single-cycle graduate degree programmes will be evaluated on their level of initial preparation; an exception is made for those who enrolled in programmes of study for which there are alternative ways of fulfilling the VPI or that provide for a specific admission test.

The VPI is a test on predefined subject areas (for example, knowledge of the Italian language and understanding of text and mathematics), diversified according to the chosen Faculty, covering the knowledge that is expected, irrespective of the diploma they obtained at their upper secondary school.

All information relating to the methods for taking the VPI for each study programme, as well as that relating to the OFA assigned to applicants who obtain an insufficient result on their VPI – which will, in any case, have to be covered by the end of the 1st year – are reported on the website *www.unicatt.it* as well as on the student's personal *iCatt*.

4. RULES FOR STUDENTS WITH FOREIGN QUALIFICATIONS

The admission of students holding foreign degrees is regulated by specific ministerial legislation, downloadable from the following link: *https://www. universitaly.it/studenti-stranieri*. Interested students are invited to request the relevant information from the International Admissions Office of each campus. The specific admission procedure is available on the website: *https:// international.unicatt.it/*

5. METHODS OF ADMISSION TO GRADUATE DEGREES

For admission to a graduate degree programme, one must have an undergraduate degree and meet certain curricular requirements (ECTS in specific scientific disciplinary sectors (SSD) and/or specific courses). For each degree programme, the admission procedures are established:
– *Chronological order with an interview or degree curriculum evaluation, if required*: the reservation of a place is done in chronological order, following payment of the first instalment of the university contributions, until all envisaged places are filled, and once any necessary interview or degree curriculum evaluation has been completed
– *Chronological order with a compulsory interview*: the reservation of a place is done in chronological order following an interview, once payment of the first instalment of the university contributions has been made, until all envisaged places are filled
– *Chronological order according to a minimum mark average*: the reservation of a place is done in chronological order, following payment of the first instalment of the university contributions, but is conditioned by certain curricular requirements
– *Grading by merit*: the reservation of a place is conditioned by a ranking drawn up on the basis of certain requirements
– *Admission test*: the reservation of a place occurs once an admission test has been passed.
Admission to some degree programmes may include more than one of the aforementioned modalities, therefore it is necessary to refer to the specific "Admission procedures" notices, available on the University website.

Administrative procedures

Compliance with deadlines for enrolment in subsequent years

Subject to the following instructions, students who intend to enrol in the new academic year are required to make payment within the deadline indicated in the *General Regulations for the Determination of University Contributions* in force and usually reported on the *iCatt* personal webpage.

If payment has been made within the terms indicated, <u>the student will be automatically placed for the new academic year of the programme year (or as "fuori corso", supplementary year student, i.e. students who have not managed to complete the scheduled exams in the time frame established by a given university programme) in the REGULAR position.</u> *If the student intends to vary the proposed enrolment* (for example, from "fuori corso" (supplementary year student) to "ripetente" (repeat students, i.e. students who have not achieved the necessary credits to move on to the following year or who have expressly requested to be able to enrol in the previous year), or request to change to another degree programme) they *must necessarily contact the Student Centre.*

If a student enrols for a year subsequent to the first year and payment was made *late,* the student will be placed in the 'in corso' position, *in debt for late payment* (downloadable online from the student's personal *iCatt* webpage). N.B. In case enrolment is renewed after the deadline for submission of the degree curriculum, an unalterable *ex-officio* degree curriculum will be assigned.

Repeat students

Students who have followed the programme of study, for which they are enrolled, for its entire duration without having enrolled in all the courses envisaged in the degree curriculum, or without having obtained the relevant attendance certificates where such attendance is expressly requested, must register as repeat students for the courses lacking enrolment or attendance.

Students who, despite having completed the normal duration of the programme of study, intend to modify their degree curriculum by adding new courses in which they have never enrolled, must register as repeat students.

Registration as a repeat student will only be allowed if the degree programme is still active. and in any case within the final deadline for the submission of the degree curriculum, in compliance with the deadlines set by the respective Faculties.

Students who have not completed university exams within the set time period ("Fuori corso" (Supplementary year student))

Students who have been enrolled and have attended all the courses required for the entire study programme are enrolled as "fuori corso" (supplementary year) students until they obtain their academic title, except in the case of alternative provisions set by the individual educational systems.

The enrolment procedure is digital. Students who wish to enrol as repeat students must submit the appropriate application form to the Student Centre of the relevant campus.

Any student already registered with Università Cattolica and regularly enrolled must pay the first instalment proposing enrolment in the new academic year and can download the *General Regulations for the Determination of University Contributions*.
In order to be enrolled in the following year, students must pay the first instalment: payment of the first instalment constitutes a definitive expression of willingness to enrol in the new academic year.
Updating of the computer database takes place as soon as the University receives news of the payment through the banking circuit. Therefore, it may take a few days after the payment before a student's enrolment is registered for the academic year.

N.B. given that the payment of the first instalment immediately completes the registration process, it is non-refundable under any circumstances – (Article 4, paragraph 8, Title I "General Rules" of the Teaching Regulations of Università Cattolica and Article 27 of the Student Regulations, approved by Royal Decree 4 June 1938, No. 1269).

Only one fulfilment remains to be met by students enrolled in degree programmes that are subject to income-dependant university contributions: they must present their income documentation using the online application on the student's personal *iCatt* webpage, which is indicated in the *General Regulations for the Determination of University Contributions* in force and usually reported on the personal *iCatt* webpage. After this date, late payment is incurred for late delivery of administrative documents.

Suspension of Studies
Students have the right to suspend the studies undertaken in the cases provided for in the current rules and regulations. At the end of the suspension, students can resume the interrupted programme of study provided that the programme itself is still active.

Transfer and Withdrawal from Studies
Students have the right to transfer or withdraw from the studies undertaken with the obligation to pay any outstanding contributions at the time of submitting their application.

The deadline for students to submit their individual degree curriculum is set within the deadlines published on the website. For delays falling within seven days of the deadline, the degree curriculum may be submitted upon payment of the expected late payment fee (for the amount see "Secretariat Fees, Late Payments and Reimbursements of Miscellaneous Expenses" in the *General Regulations for the Determination of University Contributions*). In the event of a longer delay, an unmodifiable degree curriculum will be assigned.

Examinations

General Rules
Students are required to know the rules relating to the degree curriculum of their degree programme and are, therefore, responsible for cancellation of any exams taken in violation of said rules.
In order to avoid the cancellation of exams taken, students are reminded that the prepared order of exams set between the individual years of a multi-year course or between the preparatory and the advanced or higher exam, is rigid and compulsory. Any infringement of the exam provisions will result in the cancellation of the examination. The cancelled exam must be repeated.
The mark assigned by the examining committee, once recorded, cannot be subsequently modified: the mark is final, unless expressly waived by the student. A recorded examination with a pass mark cannot be repeated (pursuant to Art. 6 paragraph 6, Title I "General Rules" of the University Teaching Regulations). Students are only allowed to take the examinations if they have: a) presented their degree curriculum; b) paid the contributions; and c) registered for the exams in the manner indicated below.
Non-EU students must also have a valid residence permit deposited at the Student Centre.

How to Register for Exams
Registration takes place online via the student's personal *iCatt* webpage and must be made no later than the fourth calendar day preceding the exam date. *Simultaneous registration for the same exam on several exam dates is not allowed.* A registration may be cancelled until the day before the first day of the exam date. Transferring the registration for an exam from one exam date to a later date can only take place once registration in the exam date one intends to abandon has been cancelled.
If the deadline for registering for an exam date has passed, it is no longer possible to cancel any registrations made and one must wait till the day after the expired exam date before registering for the next one.

N.B.: The following students will not be allowed to sit the exam:
- those who have failed to register for the exam date within the deadline;
- those who, despite registering for the exam date, did not sit the exam with a university badge and a valid identity document;
- those who have not regularised their administrative position.

Final Exam for the Awarding of a Degree

The didactic system of each degree programme offers several possible ways to take the graduation exam. The competent teaching structure defines the method to be adopted for each programme of study (see in this regard the indications on the webpages of the University website and those contained in this Guide). The procedure remains currently similar to that described for graduate degree programmes *with the following differences*:

1. it is a paper on a topic normally agreed with a lecturer of reference;
2. the commitment required for this paper is lower than that required for a traditional degree thesis (the commitment is proportional to the number of university credits attributed to the final exam in the educational system of one's degree programme). Consequently, the document will have a limited extension;
3. the subject title of the final paper must be obtained according to the procedures established by the Faculty Council (*direct assignment by the lecturer, acquisition through the thesis desk in one of the various forms available, or other*) in time for the development and completion of the paper within the deadline set for submitting an application to take the final exam for the awarding of the degree. This deadline will be published on the webpage of each Faculty for each reference session;
4. The application to take the final exam for the awarding of the degree must be submitted no less than 45 days from the beginning of the chosen session. The aforementioned application may be submitted provided that the outstanding number of exams and/or credits is not greater than that established by each Faculty;
5. the final paper, in pdf format, must be sent to the lecturer of reference via the personal *iCatt* webpage in the section "Online Secretariat – Final Exam – Send Final Exam" according to the methods and deadlines provided and published on the webpage of each Faculty. The deadline for uploading the document cannot be extended. The lecturer of reference may request a hard copy.

Final Exam for the Awarding of a graduate degree

The final exam for the awarding of the graduate degree involves the development and discussion of a written dissertation carried out on a subject previously agreed upon with the subject professor.

To be admitted to the final exam, students must fulfil the following requirements in order:

a. choose and present a topic verifying the expected curricular/temporal requirements;
b. submit the application for admission to the final exam by verifying the expected curricular/temporal requirements;
c. deliver the final paper.

1. In order to present *the topic of their degree thesis,* students must respect:
   – the deadlines for submission;
   – the curricular requirements

   The subject of the final exam must be related to a course included in the degree curriculum, and the title must be agreed with the lecturer of reference. To obtain approval for the subject, it is necessary to contact the lecturer, in the manner provided for by each Faculty. The subject must then be inserted into the personal *iCatt* webpage (Online Secretariat – Final Exam) within the deadline indicated in the section "Four-year and Graduate Degree Exam Dates" on the University Internet pages.

   Any delay will result in the thesis being postponed to the next exam date.

2. In order to submit an *application for admission to the final examination,* the following must be complied with:
   – the deadlines for submission;
   – the curricular requirements

3. To submit *the application for admission to the final exam* it is necessary to follow the procedures provided for by each Faculty and published on their webpages.

   Any changes to the title of the final paper, approved by the lecturer, must be made at the time the application is submitted. The title that is submitted must, therefore, be definitive since no changes can be accepted.

4. Students will be invited to take the final exam exclusively through their personal *iCatt* webpage, in good time and certainly no later than the tenth day prior to the graduation date.

Notes

1. No graduating student may be admitted to the graduation exam if they have not complied with the deadline dates published on the webpage of each Faculty.
2**.** *Graduating students must have* taken and recorded *all exams at least one week before the start of the graduation session.*
3. Graduating students are obliged to promptly notify their thesis supervisor if, for any reason, they are unable to graduate on the exam date for which they have applied, and, in such cases, must subsequently resubmit a new application for admission to the graduation exam.
   Graduates are also required to revoke their application, if they wish, through the iCatt degree portal and to promptly notify the supervising professor.

GRADUATION EXAMS RELATING TO PROGRAMMES PRIOR TO THE ENTRY INTO FORCE OF MINISTERIAL DECREE NO. 509 OF 3 NOVEMBER 1999

The procedure is substantially similar to that described for the final exam for the awarding of a graduate degree, unless different instructions are published in this Guide. For the graduation exams of the four-year/five-year programmes too, prior to the regulation referred to in Ministerial Decree 509/99, application for admission to the final exam may be submitted provided that the number of outstanding exams is not higher than that established by each Faculty.

LOSS OF STUDENT STATUS BY THOSE ENROLLED IN A STUDY PROGRAMME FOLLOWING THE UNIVERSITY REFORM PURSUANT TO MINISTERIAL DECREE 509/1999

Students who have not regularly enrolled for five consecutive academic years or students who, after the normal duration of their study programme, have not passed exams for five consecutive academic years, may not enrol in a new academic year and, therefore, **lose their student status**. The aforementioned provision does not apply to students who only have to take the graduation exam or who have obtained all the credits except those covered in the final exam.

Students who, despite having passed all the exams in their degree curriculum, have not renewed their enrolment for at least 5 consecutive academic years, are exclusively outstanding on their final paper or thesis, yet complete their studies within the academic year 2025/2026, are required to make, at the same time and no later than 31 December 2025, the following payments:
– the recognition contribution relating to 5 academic years regardless of the number of academic years of non-renewal;
– the first instalment to fully cover university tuition fees for the academic year 2025/2026 (thus exempting the second and third instalments).

They are also required to pay the graduation fee for the exam date of the relevant graduation session.

Loss of student status by those enrolled in a study programme prior to the university reform pursuant to Ministerial Decree 509/1999

Students who have not taken exams for eight consecutive years may not enrol in a new academic year and, therefore, **lose their student status**. The aforementioned provision does not apply to students who only have to take the graduation exam or who have completed all the exams except those covered in the final exam.

Students who, despite having passed all the exams in their degree curriculum, have not renewed their enrolment for at least 8 consecutive academic years, are exclusively outstanding on their thesis, yet complete their studies within the academic year 2025/2026, are required to make, at the same time and no later than 31 December 2025, the following payments:

– the recognition contribution relating to 8 academic years regardless of the number of academic years of non-renewal;
– the first instalment to fully cover university tuition fees for the academic year 2025/2026 (thus exempting the second and third instalments).

They are also required to pay the graduation fee for the exam date of the relevant graduation session.

Withdrawal from studies

Students have the right **to withdraw from the studies undertaken** with the obligation to pay any outstanding contributions at the time of submitting their application for withdrawal from studies. This is done by printing the withdrawal application from their personal *iCatt* webpage in duplicate, affixing the stamp mark according to the current value and submitting the application for withdrawal to the Student Centre of the relevant campus, and the badge (in the case of a Carta Ateneo + provided that the banking services have not been activated).

Their withdrawal must be written in a clear and explicit way, without affixing any conditions, terms and clauses that limit its effectiveness. Those who have withdrawn from their studies, upon request, may be issued certificates relating to the academic career previously pursued under conditions of administrative regularity.

Transfer to another degree programme

Regularly enrolled students who intend to transfer to another degree programme within the same or another Faculty of Università Cattolica must use the online procedure on their personal *iCatt* webpage.

The students concerned are also invited to consult the notices published on the University website to check the deadlines for uploading the necessary documentation on the *Registration Portal*.

Transfers

Transfers to another University

The regularly enrolled student can transfer to another University, **after consulting its study regulations, from 15 July to 31 October of each year (unless the final deadline in the provisions of the destination University is before 31 October), by submitting a specific application to the Student Centre.**
Students who request a transfer to another University beyond the deadline set by the regulations and certainly no later than 31 December are required to pay an operational contribution directly proportional to the delay in submitting the application. However, the transfer cannot take place without authorisation from the University of destination.
In order to obtain the transfer, the student must follow the procedures and not have outstanding university contributions at the time of submitting their application.

> *As from the date of submission of the transfer application, no further examination shall be allowed*. Any exams taken and not yet recorded on the aforementioned date will not enter the student's career record.

Students who obtain authorisation to return to Università Cattolica are admitted to the programme year corresponding to the exams passed, regardless of the registration previously obtained. They will also be required to pass any additional supplementary tests deemed necessary by the competent Faculty Council to bring them in line with the students of Università Cattolica.

Transfers from another University

Students already enrolled at another University who intend to enrol at Università Cattolica are required to use the *Registration Portal*. The students concerned are also invited to consult the University website to check how and when to submit the necessary documentation.

Students are, in any case, required to submit a transfer request to the University of origin.

Registration "ex novo" with any shortened course (career recovery)

Students who withdrew from their studies or who lost their student status may request to enrol "ex novo" in the study programmes provided for by the new regulations.
The competent teaching structures establish which credits acquired in the previous university career may be recognised.

Single Course Enrolment

Pursuant to Art. 11 of the University Teaching Regulations and subject to authorisation from the competent teaching structure, the following students may register for individual courses and take the exams for these courses on the exam dates of their respective academic year of attendance:

a. students enrolled in other universities authorised by the University to which they belong and, if foreign citizens, in compliance with current legislation and procedures;
b. graduates interested in completing the training curriculum followed;
c. other interested parties, previously authorised by the Council of the competent teaching structure, provided that they hold the necessary qualifications for enrolment in the study programme to which the individual courses refer.

A tuition fee plus a contribution is due for each course (see *General Regulations for the Determination of University Contributions*).

The students mentioned above can enrol in individual courses corresponding to a number of university credits established by the Council of the competent teaching structure and, as a rule, no more than 30 per academic year, for no more than two academic years; any exceptions will be considered, upon motivated request, by the Council of the competent teaching structure.

The application for registration may be submitted, only once per academic year and with reference to courses belonging to (or shared with) the same Faculty, to the Student Centre within the following dates: if one or more courses begin/s in the first semester, by 6 October 2025; if the course or courses of interest begin/s in the second semester, by 9 February 2026.

Notes regarding secretarial duties

Unless otherwise stipulated, students are reminded that, in order to protect personal data, *they must present themselves in person* at the relevant offices to carry out any administrative procedures.

Please note that some administrative procedures may be done online on the student's personal *iCatt* webpage.

Students are recommended not to wait until the last days before the deadlines to complete the procedures for the various requirements.

Student Centre Opening Hours

The Student Centre is open to the public on weekdays (Saturdays excluded) according to the times indicated on the website (*www.unicatt.it*).

The Student Centre will be closed on the feast of the Sacred Heart, from 24 to 31 December, for two consecutive weeks in August, and on Good Friday. Students will be advised of any additional closure days with appropriate notice via notices on the website.

It is essential that both the residence and contact details, in case of subsequent changes, be updated promptly: this update must be carried out directly by the student online using the appropriate function via their personal *iCatt* webpage.

Certificates

Certificates relating to students' academic careers are normally issued with a stamp except in the cases indicated by current legislation in which the exemption or substitute declaration of certification (self-certification) is expressly provided for.

Via the self-service, students can produce certificates digital format (pdf) and in signed digital format.

Issuance of Degree Certificates and Requested Duplicates

To receive the original degree certificate, students must follow the instructions contained in the invitation letter to the graduation exam.
Should the original degree certificate be lost, the interested party may – by way of a specific application, subject to stamp duty and accompanied by the documents proving the loss (a competent judicial authority report) – request from the Rector a duplicate of the certificate after paying the associated issuance fee.
The original certificates are delivered to the interested party to the address on the records held in administration at the time of applying for the graduation examination.

University Contributions

Information on university contributions as well as financial benefits can be consulted through the website of Università Cattolica and from the student's personal *iCatt* webpage.
Students who are not in good standing with the payment of contributions and with the prescribed documents cannot:
– be enrolled in any course year, either as a repeat or "fuori corso" (supplementary year) student;
– be admitted to examinations;
– obtain transfer to another degree/diploma programme;
– transfer to another university;
– obtain registration certificates;
– withdraw from the study programme in which they are enrolled.

Students who resume their studies after having interrupted them without a formal withdrawal, or having suspended them for one or more academic years are required to pay the contributions of the academic year in which they resume their studies, while for the years related to the period of interruption or suspension, they need only pay a recognition fee. Students who, on resuming their studies at the beginning of the academic year, ask to be able to take exams during the extraordinary session between January and April, normally scheduled for those who attended the previous academic year, are also required to pay an additional contribution.

As a rule, payment of all instalments must be made via the student's personal *iCatt* webpage.
Students who enrol in the first year of a programme or who enrol in admission tests to degree programmes will have to make the payment from the *Registration Portal*; moreover, solely in these cases, it is also possible to pay the first instalment and the contribution of the admission test by credit card via the website of Università Cattolica.
Bank transfer is not allowed as a means of payment.
Already registered students will have to access their personal *iCatt* webpage to pay the first and subsequent instalments.
Arrears are due for late payment of university contributions to the extent annually established in the General Regulations for the Determination of University Contributions.
For the purposes of any future feedback, students should retain all receipts of payments made until the end of their studies.

RULES OF CONDUCT

According to the provisions of the University regulations and the Code of Ethics of Università Cattolica, students are required to conduct themselves in a manner that is not detrimental to dignity and honour and does not conflict with the spirit of Università Cattolica.
In case of non-compliance, the University regulations provide for the possibility of disciplinary sanctions of various entities in relation to the seriousness of the infractions (see Art. 18 bis - *Disciplinary Powers Regarding Students*, Title I "General Rules" of the University Teaching Regulations).
The possible imposition of sanctions is ordered by the competent academic bodies on the basis of procedures that ensure the right of defence of the interested parties in keeping with the general principles in force in this matter.

Rules for Maintaining Safety at the University: Safety, Health and the Environment

With regard to Safety, Health and the Environment, Università Cattolica del Sacro Cuore has as its strategic objective the protection of employees, lecturers and non-lecturers, researchers, doctoral students, trainees, scholarship holders, students and visitors, as well as the protection of the environments and assets used for the performance of its institutional activities in accordance with the provisions of its mission.

The task of all, lecturers, students and administrative staff, is to collaborate in the pursuit of the aforementioned objective, constantly verifying that the conditions necessary for the maintenance of health and safety in the workplace are met and that the procedures are known and constantly applied; alternatively, it is the task of everyone to report potentially dangerous situations, collaborating with the services responsible for the continuous improvement of the practices and procedures for carrying out institutional activities.

Students can also contribute to the improvement of safety (in compliance with current regulations) by conducting themselves in the following way:

a. observing the provisions and instructions given for the purposes of collective and individual protection;

b. using machinery, equipment, tools, substances and safety devices correctly;

c. using protective equipment made available to them in an appropriate manner;

d. immediately notifying the personnel in charge of any defects in vehicles and/or devices, as well as any other dangerous conditions of which they become aware, making direct efforts in an emergency, within the scope of their competences and possibilities, to eliminate or reduce these defects or dangers;

e. not removing or modifying any safety, warning or monitoring devices without authorisation;

f. not carrying out on their own initiative any operations or manoeuvres that are not within their competence or that may compromise their own or other people's safety;

g. undergoing any required health checks for the tasks identified by the competent doctor in the health plan;

h. contributing to the fulfilment of all the obligations imposed by the competent authority or, in any case, necessary to protect safety and health at the University;

i. avoiding behaviour that is dangerous to oneself and others.

Some examples to help maintain safety conditions:

in corridors, staircases and hallways	do not run;
	do not deposit items that may obstruct the passage;
	leave the passageways and emergency exits free;
– in institutes/departments, in laboratories and in the library	scrupulously follow the indications of the staff in charge;
	before using any appliance, equipment or other device, read the rules of use, instructions and safety directives;
	do not use one's own equipment without specific authorisation from the personnel in charge;
	do not carry out different activities to those that are educational or authorised;
– in the places indicated	do not smoke or light uncovered flames;
	do not access those places with a no entry sign;
– in case of emergency	remain calm;
	report the ongoing emergency immediately to the staff present and/or on the phone numbers indicated;
	use the firefighting safety equipment to extinguish a fire only if reasonably confident to do so (small fires) and ensure to always have a feasible and safe escape route;

– **in case of evacuation (announced
    via a broadcast audio message or by
    a continuous, uninterrupted sound
    of the end-of-lecture bell)**

follow the instructions provided by
the emergency team personnel;

do not use the lifts;

get to open-air places as
soon as possible following the
displayed signage;

go to the nearest meeting point
(indicated in the charts displayed in
the building);

verify that all persons who
were present have been able
to reach a place of safety;

report the case of a possible missing
person to the emergency team
personnel.

During an earthquake

– Take cover under a desk;

– shelter under the jamb of a door;

– stay away from bookshelves or furniture that may fall on you;

– stay away from windows or glass doors;

– stay inside the room until the shock wave has passed;

– if you are outdoors, get away from buildings, trees and power lines.

People unable to leave the building or in difficulty during the emergency

Make sure that everyone has correctly received the evacuation message and is aware of what is happening; accompany, or have accompanied, people with reduced motor or sensory abilities outside the building; if it is not possible to reach the outside of the building, transport them, while waiting for help, to a suitable place (*quiet space or safe place*), indicated on the emergency charts, or to locations not directly affected by the current emergency; report to the EMERGENCY NUMBER 111 (internal telephone) and 0372499111 (external telephone) and/or to the emergency manager of the meeting point the presence of people with particular difficulties, or if it has not been possible to reach the meeting point, report their location or presence inside the building.

Restrictions

The smoking ban applies in all offices of Università Cattolica del Sacro Cuore, within the limits and in the manner established by the relevant legislation.

Student Collaboration

If you have initiated a collaboration contract with the University, carry out the online safety training using the credentials you were provided with, take care of your safety and that of the other people present in the workplace, and always follow the instructions received from your activity points of reference.
If you think you have any health problems that may also be indirectly caused by the work activity you are carrying out, ask to arrange a meeting with the competent university doctor.

COVID-19 Prevention Measures

Please see any notices published on the University website.

Emergency

The emergency plan of Università Cattolica del Sacro Cuore for the Rome campus envisages the activation and intervention of the Fire Safety Unit of the Fondazione Policlinico Agostino Gemelli which, operating 24 hours a day even on public holidays, is in charge, in case of need, of circumscribing a negative event by coordinating interventions (fire, flooding, gas leaks, resolution of

dangers caused by accidental breakages of any kind). Anyone who notices an anomalous situation that could lead to an emergency, a fire outbreak, or another dangerous situation, is required to alert the Emergency Management Centre, using the telephone number dedicated to the emergency (internal telephone number 4000 or by dialling 06-30154000 from any other telephone), giving details, their position, the type of danger or emergency already underway, the number of people involved, and an estimate of the seriousness of the situation. The person reporting the emergency must not close the communication until authorised to do so by the operator of the Emergency Management Centre.

All students must comply with the instructions given by the emergency coordinator. Plans showing escape routes in the event of an emergency and the rules of behaviour to be adopted are posted in all common transit areas.

ACCIDENTS AT WORK

In the event of an illness or accident that requires urgent medical attention, dial 5555 (Medical emergency).

Students who suffer an accident on the Rome campus of the Università Cattolica del Sacro Cuore are required to notify the person in charge and to go to the Emergency Room to seek medical assistance from the SSN doctor they trust, should they require treatment. For minor medication, the injured person may use the first-aid kits available in the various offices.

In any case, the injured person must comply with the accident management procedure in force in our organisation[1].

Given the specific nature of the injury and its possible repercussions, the way in which post-exposure injuries are managed requires the use of different resources and methods than in the case of injuries in general; in this case, therefore, the student must follow the Operational Instruction issued by the Fondazione Policlinico Gemelli.

---

[1] Procedure of the Università Cattolica del Sacro Cuore – Rome campus entitled: "Gestione infortuni" ("Accident Management"); Operating Instructions of the Fondazione Policlinico Universitario Agostino Gemelli entitled: "Gestione post-esposizione occupazionale a materiale biologico" ("Management after occupational exposure to biological material").

ASSAULT OR THEFT

Following an assault or theft, the useful number for such emergencies is 06/30153373 Vigilance and Access Control Services (security guard).

REFERENCE UCSC SERVICES AND THEIR PHONES

Health Emergency	06/3015555
Emergency Management Centre	06/30154000
University Prevention and Protection Service	06/30154256/5809
Fire safety unit 06/30155311/4683	
Surveillance and Access Control Service	06/30153373
Management and maintenance	06/30155000
First Aid	06/30154030/4031/4034
Health physics	06/30154997/4772

UNIQUE EMERGENCY NUMBER TO ACTIVATE AN EXTERNAL RESCUE: 112

IMPORTANT!

After calling or during the call to the unique emergency number, inform the internal rescue team on the number 4000 in order to coordinate and access the external rescue.

UNIVERSITY STAFF

The staff of Università Cattolica are at the service of the students and users of the University. The staff is committed to ensuring the best conditions so that all users can take advantage of the services and facilities of the University in the most profitable way.

The Secretarial, Library and Logistics staff, in exercising their duties within the University premises, are authorised to enforce the provisions underlying the use of university spaces and facilities.
According to Art. 47 of Royal Decree 1269/1938, all personnel – and in particular the Supervisory, Janitorial and Concierge employees – may act to prevent and inhibit any disturbance of the University's internal order. In exercising such actions, they draw up a report that also has external relevance and can be equated to the reports drawn up by officers and agents of the Police Force.

Rules Guaranteeing the Functioning of Essential Services

(Rules governing the exercising of rights to strike in an essential public service and the protection of constitutionally protected personal rights – Laws no. 146/1990, no. 83/2000 and subsequent amendments and additions)

Within the context of a university's educational essential services, the continuity of the following essential services must be guaranteed to ensure respect for the constitutionally protected values and rights:

- registration for and enrolment in university programmes;
- final exams, graduation and state exams;
- final exams of the annual and/or semi-annual educational cycles;
- certification for participation in competitions in cases of documented urgency due to the expiry of deadlines.

Online services

Student's personal online page (iCatt)

The student has a personal *iCatt* web page which provides access to administrative services and information about courses (e.g. timetables, exam sessions, announcements etc.). Through *iCatt* web page the student can:
– submit the study plan
– apply for exams
– monitor already taken exams and outstanding exams
– update income and tax information.
Moreover, the *iCatt* homepage will show communications from the Student Services via an online notice board.
The student can access *iCatt* by logging on http://icatt.unicatt.it with his/her personal login and password.
The student can send an e-mail to gestione.iam@unicatt.it to receive technical assistance on the access and use of *iCatt*.

Teacher's personal page

The student can find information about teachers' e-mail, office hours, courses provided and course programs on the teacher's personal page, available on the University website http://docenti.unicatt.it

Blackboard

Blackboard is a platform accessible at http://blackboard.unicatt.it. It is not only a download area of course support materials (slide lessons, exercises, exam topics, ...) but a real online interaction room for students and teachers.
The student can access Blackboard courses directly from his/her *iCatt* page.
For more information or questions related to registration to Blackboard , the student can refer to the Help section on the I-Catt page or send an e-mail to support.blackboard@unicatt.it

STUDENT SERVICES AND CONTACT DETAILS

Information about the following services can be found online at http://roma.unicatt.it:
– Library: biblioteca-rm@unicatt.it; documenti.delivery-rm@unicatt.it; tel. 06/30154264 - 4339;

– Advising and Tutoring: tutordigruppo-rm@unicatt.it; tel. 06/30154750;

– Internships and Placement Service: stage.placement-rm@unicatt.it; tel. 06/30154480;

– Global Engagement and International Education (international student mobility programmes) ucsc.international-rm@unicatt.it; tel. 06/30155819;

– ILAB – Centre for innovation and development of university teaching and technologies (ICT courses and Blackboard): http://blackboard.unicatt.it;

– SeLdA – University Language Service

– Services for inclusion, aimed at students with disabilities, with specific learning disabilities (SLD), as well as with special educational needs (SEN) (at the Student Services Centre – *Polo Studenti*): servizi.inclusione-rm@unicatt.it; servizi.dsabes-rm@unicatt.it;

– Public Relations Office: rapporti.pubblico-rm@unicatt.it;

– EDUCatt – Università Cattolica del Sacro Cuore Organisation for the right to academic education (health service, student cafeterias, housing solutions, book loans) info.rm.dsu@edu-catt.it; tel. 06/3050120;

– Pastoral Centre: centro.pastorale-rm@unicatt.it; tel. 0630154258;

– On-campus Student Work: collaborazione.studenti-rm@unicatt.it;

– Cultural and Recreational Activities;

– Psychological Counselling Service;

– Youth Health - Front Office.

General Information

Office hours

Student-teacher meetings are an important exchange opportunity between teachers and students outside the classroom to clarify doubts about the classes and to ask for advice on how to best deal with challenges that the student may encounter. A meeting can be scheduled throughout the academic year according to the instructions on the instructor's personal pages.

UNIVERSITÀ
CATTOLICA
del Sacro Cuore

www.unicatt.it

Rome
Largo F. Vito, 1