

EDUCATION PROGRAM

Critical Care and Emergency Medicine

Lifelong learning for the care of critical and semi-critical patients



UNIVERSITAT DE
BARCELONA

Facultat de Medicina
i Ciències de la Salut



PIMCE

Programa Integral
Enfermo Crítico y Emergencias



Lifelong learning at UB

Training in critical care is essential for healthcare professionals working in ICUs, emergency departments, and other areas where patients with serious illnesses or requiring intensive care are treated.

Lifelong education in this area is crucial to ensure patient safety and quality of care and should be a priority for all healthcare professionals working in these settings. This training needs to be constantly updated to adapt to changes in healthcare technologies and treatment protocols, as well as to stay up to date with the latest advances in clinical research. Professionals working with critically ill patients must have a broad understanding of the pathophysiology of different diseases, their complications, and techniques such as life support, mechanical ventilation,

and other devices, drug administration, and other therapies. It is important to include training in psychological and emotional care for patients and their families, as well as for the healthcare professionals themselves.

At the University of Barcelona, in collaboration with other national and international institutions, we have been offering an interdisciplinary professional development program in critical care and emergencies since 2005. This program has been successful in providing advanced training for professionals and is a pioneer in educational innovation through the introduction of clinical simulation and reflective analysis in learning. The program is constantly adapting to technological advancements as well as the needs of students and healthcare professionals.

Below, you will find the current **educational offerings**, as well as examples of programs carried out upon request from other institutions.

> Master's Degree Critical and Emergency Care

<https://masterenfermocritico.ub.edu/>

Target audience: Graduates in medicine or nursing

Credits: 120 ECTS (6 modules)

Certificate: Lifelong Master's Degree, interuniversitary UB-UAM

Teaching period: 2 academic years

Modality: Blended

Language: Spanish

Locations: Barcelona, Madrid

Clinical internships: National and international healthcare centers and emergency systems

Students: Up to 160 per academic year

The Master's Degree in figures

18 editions	6 modules	3.123 graduated students	911 faculty collaborators
2 academic years	2 campuses	6 simulation labs	15 hospitals





Lifelong learning at UB

> Postgraduate Course Principles of Critical and Emergency Care

<https://cursosmedicinaintensiva.ub.edu/fmce/>

Directed to: Graduates in medicine or nursing

Credits: 30 ECTS

Certificate: Specialization Diploma

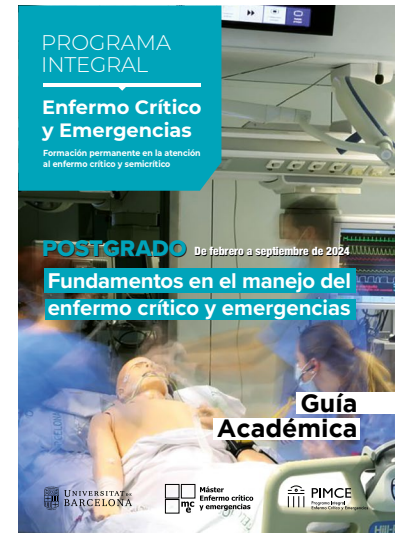
Teaching period: 8 months

Modality: Virtual

Language: Spanish

Students: Up to 60 per academic year

Validates module 1 of the Master in Critical Illness and Emergencies



> Postgraduate Course Principles of Critical Care Medicine and Intensive Therapy

<https://cursosmedicinaintensiva.ub.edu/fmcti/>

Directed to: Graduates in medicine or nursing

Credits: 30 ECTS

Certificate: Specialization Diploma

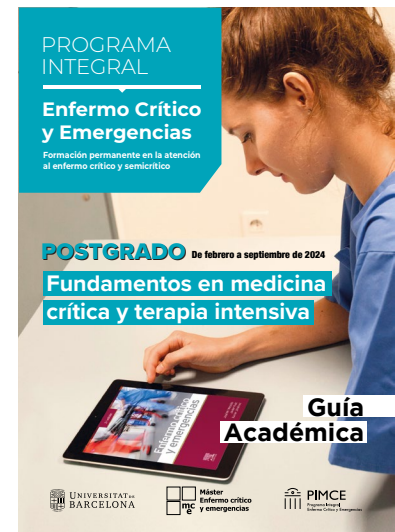
Teaching period: 8 months

Modality: Virtual

Language: Spanish

Students: Up to 60 per academic year

Validates module 1 of the Master in Critical Illness and Emergencies



> Postgraduate Course Principles of Critical Care Hepatology

<https://cursosmedicinaintensiva.ub.edu/fhc/>

Directed to: Medical specialists in Intensive Medicine, or Gastroenterology, or related specialties

Credits: 30 ECTS

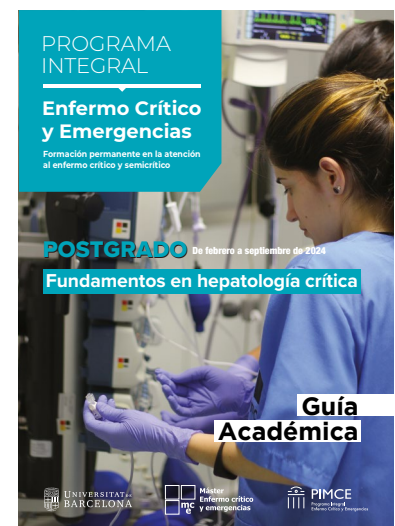
Certificate: Specialization Diploma

Teaching period: 8 months

Modality: Virtual

Language: Catalan/Spanish

Students: Up to 4 per academic year





Society of Critical Care Medicine courses



> Advanced university course UB Multiprofessional Critical Care Review

<https://cursosscm.ub.edu>

Directed to: Graduates in medicine or nursing

Credits: 8 ECTS

Certificate: Advanced university course UB

Teaching period: 2 months

Modality: Blended

Language: Book: English, Virtual part: English,
In-person part: Spanish

Students: Up to 20 per academic year

> Advanced university course UB Fundamental Critical Care Support

<https://cursosscm.ub.edu>

Directed to: Graduates in medicine or nursing

Credits: 4 ECTS

Certificate: Advanced university course UB

Teaching period: 2 months

Modality: Blended

Language: Book: Spanish, Virtual part: English,
In-person part: Spanish

Students: Up to 20 per academic year

> Advanced university course UB Fundamental Critical Care Support: Crisis Management

<https://cursosscm.ub.edu>

Directed to: Graduates in medicine or nursing

Credits: 4 ECTS

Certificate: Advanced university course UB

Teaching period: 2 months

Modality: Blended

Language: Book: English, Virtual part: English,
In-person part: Spanish

Students: Up to 20 per academic year

> Advanced university course UB Critical Care Ultrasound

<https://cursosscm.ub.edu>

Directed to: Graduates in medicine or nursing

Credits: 4 ECTS

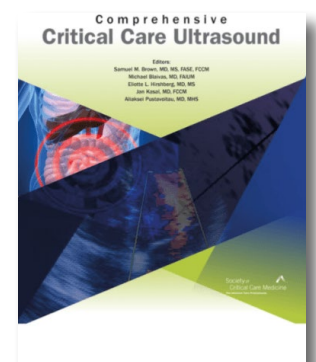
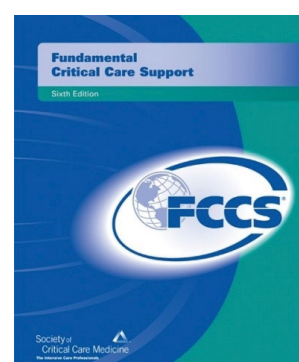
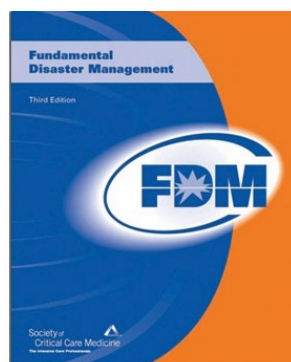
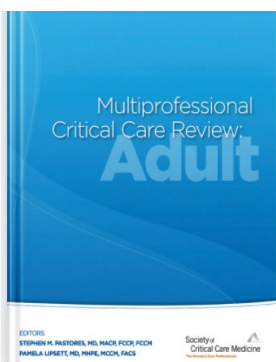
Certificate: Advanced university course UB

Teaching period: 2 months

Modality: Blended

Language: Book: Spanish, Virtual part: English,
In-person part: Spanish

Students: Up to 20 per academic year





Ad-hoc educational programs

We provide **tailor-made teaching** according to the needs of each institution.
We offer the possibility of traveling to deliver in-person training *on-site*

Examples of programs developed in recent years

> EduCatVID

Training program in the management of semi-critical and critical patients with COVID-19

Scope: CatSalut (*Catalan Health Service*) and other health professionals

Directed to: Medicine and nursing professionals from hospitalization and intermediate care units

Year: 2020-2021

Objective: Ensure the fundamentals in the care of critically ill patients with COVID-19

Modality: MOOC (*Massive Online Open Course*)
Over 20,000 students

Train-the-trainer program: Skills and simulation
(64 participants, 12 hours)

EduCatVID in figures

8856

Coursera
students

11583

CatSalut health
professionals

74

virtual
lessons

24h

interdisciplinary
simulation

The image shows the cover of a book titled 'EduCatVID: Habilitats en el maneig del malalt semicrític i crític per COVID-19'. The cover is white with a blue header and footer. Logos for 'Máster Enfermo crítico y emergencias', 'UNIVERSITAT DE BARCELONA', and 'Generalitat de Catalunya / Salut' are visible. The text on the cover reads: 'Habilitats en el maneig del malalt semicrític i crític per COVID-19' and 'Llibre de suport per la impartició de docència pràctica d'habilitats i cas clínics a través de simulació.' At the bottom, it lists editors: Esther León Castela, Munt García Font, JM Nicolás Arfells, and coordinators: Candelaria de Haro, Purificación Pérez, Marta Raurell, dated v.01 Abril 2021.

> Vigilance Project

Standardized response to the risk or deterioration of a hospitalized patient.
Use of computer systems

Scope: Hospital Clínic professionals

Directed to: Physicians and nurses from hospitalization and critical care units

Year: 2022-2023

Objective: Detect when a patient is at risk or deteriorating, coordinate clinical intervention and escalation by the healthcare team

Modality: Blended

Vigilance Project in figures

800

health
professionals

27

virtual lessons

7h

interdisciplinary
simulation

The image shows the cover of a book titled 'PROJECTE VIGILANCE'. The cover features a teal and white color scheme with a background image of a person's face. The text on the cover includes: 'PROJECTE VIGILANCE', 'Resposta estandaritzada davant el risc de deteriorament en el pacient hospitalitzat. Utilització de sistemes computacionals', and 'ICMID · ICR · ICMDM · ICMHO'. At the bottom, it lists 'vigilance@clinic.cat' and logos for 'Clínic Barcelona' and 'UNIVERSITAT DE BARCELONA'.



Registration and enrollment in UB courses

1 Admission



APPLICATION: Complete the form on the course website
<https://masterenfermocritico.ub.edu/admision/>



ACCEPTANCE: The application will be evaluated, and a response will be provided within a maximum of one week, along with the UB pre-registration link.

2 Pre-registration



FORM: Complete the required information in the pre-registration system of the University of Barcelona.



PRE-REGISTRATION PAYMENT: Once pre-registered, the online payment will be generated. This payment guarantees the reservation, is non-refundable, and will be deducted from the tuition fee.

3 Enrollment



DOCUMENT SUBMISSION (via email or postal mail): Pre-registered applicants must send the following documents to the Secretary's Office:

- Original or certified copy of ID card, passport, or corresponding identification document.
- Original or certified copy of the university degree or certificate of issuance.
- In the case of non-homologated foreign degrees, a request for authorization to take the course must be completed, along with a responsible declaration confirming the authenticity of the provided degree information.

<http://www.ub.edu/acad/en/admission/international/postgraduate.htm>




ENROLLMENT: Once the documentation is verified, you will receive an email with the UB link for course enrollment, the University of Barcelona identification number (NIUB), and the code to access MonUB.



TUITION PAYMENT: Once enrolled, the remaining payment, after deducting the pre-registration fee, will be generated for online payment. This payment is non-refundable, and the payment status can be checked in MonUB.

4 Course Start

Once the enrollment fee is paid, you will have access to the academic content on the Moodle Virtual Campus UB platform.

FOR MORE INFORMATION: [SECRETARÍA MÁSTER ENFERMO CRÍTICO Y EMERGENCIAS](#)
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mce@ub.edu  +34 934 020 442  +34 646 884 085



Content Development for Learning

> Clinical simulation labs at the **Campus Clínic**

<https://laboratorisimulacioclinica.ub.edu/>

The clinical simulation laboratories at the School of Medicine and Health Sciences (Campus Clínic) at the University of Barcelona are a vital asset for the training and professional development of healthcare professionals. They provide advanced technology and a methodological approach that ensures the provision of safer, more efficient, and higher-quality care for critical and semi-critical patients.

These laboratories are widely recognized for their technological excellence and effective teaching methodology. Equipped with state-of-the-art high-fidelity simulators, comprehensive real-life emergency and intensive care equipment, as well as virtual and augmented reality tools, among others, they offer students and healthcare practitioners an immersive and realistic learning experience.

Moreover, the development of essential competencies such as teamwork, communication, leadership, and reflective analysis is a fundamental aspect of the training provided. These competencies play a crucial role in successfully managing crisis situations.



> Audiovisual Unit at the **Campus Clínic**

<https://audiovisualsclinic.ub.edu/>

The Audiovisual Unit of the Faculty of Medicine and Health Sciences (Campus Clínic) at the University of Barcelona is a leading center dedicated to producing high-quality audiovisual content for the training and professional growth of healthcare practitioners.

With cutting-edge technology, we offer a comprehensive range of services tailored to meet the needs of medical education. These services encompass the creation of educational modules, the recording of technical skills and simulated clinical cases, and the development of content for immersive virtual reality simulations. Moreover, we specialize in broadcasting and capturing events, providing invaluable assistance in integrating multimedia elements into teaching methodologies. Our facilities are specifically designed to facilitate interactive hybrid learning environments.

At the core of our mission is a commitment to advancing learning in critical and semi-critical patient care. Our primary objective is to enhance the safety, efficiency, and overall quality of healthcare practices.



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For more information or to request a quote for educational programs, please contact us at
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