

Simulation II

Code: 106117
ECTS Credits: 3

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Degree	Type	Year
2500891 Nursing	OB	4

Contact

Name: Rebeca Gomez Ibañez

Email: rebeca.gomez@uab.cat

Teachers

Eva Porcuna Nicolas

Maria Angelica Varon Alvarez

Daniel Gomez Garcia

Anna Grimal i Grèbol

Núria Grané Mascarell

David Téllez Velasco

Teaching groups languages

You can view this information at the [end](#) of this document.

Prerequisites

There are no prerequisites to take the subject.

Objectives and Contextualisation

Simulation is an innovative teaching methodology that allows advanced clinical skills to be practiced in a simulated environment close to reality.

The objectives of the subject are for students to be able to:

- Demonstrate technical and non-technical skills to apply the most common basic nursing care following hospital and primary care protocols.
- Establish effective communication with patients, healthcare team and family members in a simulated environment.
- Act, plan and prioritize the action in accordance with the situation of the case.

- Demonstrate the use of critical reasoning when making decisions and resolving cases.
- Demonstrate teamwork skills to achieve a common goal.
- Apply the main action protocols in people with critical and complex affectations.

Competences

- "Demonstrate an understanding of people without prejudice: consider physical, psychological and social aspects, as independent individuals; ensure that their opinions, values and beliefs are respected and guarantee their right to privacy, through trust and professional secrecy."
- Carry out basic curative actions based on holistic health care, involving multiprofessional cooperation, the integration of processes and continuity of health care.
- Demonstrate knowledge of the ethical and deontological code of Spanish nursing and what is understood by ethical health implications in a changing world context.
- Demonstrate knowledge of the principles of health financing and social health and proper use of available resources.
- Establish efficient communication with patients, family members, social groups and friends, and promote education for health.
- Offer technical and professional health care and that this adequate for the health needs of the person being attended, in accordance with the current state of scientific knowledge at any time and levels of quality and safety established under the applicable legal and deontological rules.
- Promote and respect the right to participation, information, autonomy and informed consent in decision-making by the patient, in accordance with the way they are experiencing the health-illness process.
- Protect the health and welfare of people or groups attended guaranteeing their safety.
- Students must be capable of applying their knowledge to their work or vocation in a professional way and they should have building arguments and problem resolution skills within their area of study.
- Students must be capable of collecting and interpreting relevant data (usually within their area of study) in order to make statements that reflect social, scientific or ethical relevant issues.
- Students must develop the necessary learning skills to undertake further training with a high degree of autonomy.
- Students must have and understand knowledge of an area of study built on the basis of general secondary education, and while it relies on some advanced textbooks it also includes some aspects coming from the forefront of its field of study.
- Use scientific methodology in interventions.
- Work with a team of professionals as a basic unit to structure the professionals and the other care organisation workers in a unidisciplinary or multidisciplinary way.

Learning Outcomes

1. Adapt the language of communication to the needs of each interlocutor.
2. Apply group management techniques.
3. Apply the ethical and deontological code of nursing in all areas of nursing activity.
4. Assess and treat receivers of care in a tolerant holistic manner without making value judgements.
5. Comprehensively assess health situations using tools such as physical examination, laboratory tests and nursing interview.
6. Demonstrate skill in carrying out manoeuvres of basic and advanced life support.
7. Demonstrate skill in performing nursing procedures and techniques.
8. Demonstrate skills for team working.
9. Display a cooperative attitude towards the different members of the team.
10. Establish an empathetic and respectful relationship with the individual and their family, in accordance with their situation, their health problems and the stage of their development.
11. Exercise a respectful relationship with the user of the service/family/health team without making value judgements.
12. Make adequate use of the available resources.
13. Respect the principles of the right to privacy, confidentiality and professional secrecy in all care given.

14. Respect the right to participation in the decision making process by people for their own care, in accordance with the way in which they are experiencing the health process.
15. Students must be capable of applying their knowledge to their work or vocation in a professional way and they should have building arguments and problem resolution skills within their area of study.
16. Students must be capable of collecting and interpreting relevant data (usually within their area of study) in order to make statements that reflect social, scientific or ethical relevant issues.
17. Students must develop the necessary learning skills to undertake further training with a high degree of autonomy.
18. Students must have and understand knowledge of an area of study built on the basis of general secondary education, and while it relies on some advanced textbooks it also includes some aspects coming from the forefront of its field of study.
19. Use methods of protection and safety to ensure wellbeing and minimise risk associated with health care.
20. Use scientific evidence in care practice.

Content

In the context of health sciences, there are constant changes and new challenges associated with re constant evaluation and existence of more complex situations. These changes have caused educational institutions to generate new tools that allow students to acquire different levels of training and knowledge, while applying safe care plans for patients. The simulation has allowed the development of new ways of learning thanks to the recreation of clinical scenarios similar to the real one. Therefore, simulation encompasses a variety of educational techniques in which students have the opportunity to practice an active learning process in an environment that imitates the clinical field and experience experiences similar to the real ones but without putting danger to the patient's safety.

In the simulation we can find different types of simulators. The ones we will use in the subject will be: **Part** Task Trainers, static mannequins that do not interact with but imitate different parts of a patient's body; the Human Patient Simulators which are computer-controlled mannequins that interact with students to imitate care for a patient in their corresponding clinical environment; and finally, use will be made of standardized patients represented by trained actors who seek to behave in a pre-established manner.

Depending on the type of simulators used (one or a combination of different ones) and the recreation of the more or less realistic classroom environment, low, medium or high fidelity simulation will be carried out, always looking for the acquisition of determining learning objectives, present in the different cases.

- Low fidelity simulation (PHCA)

Simulation experiences that include role-playing or case studies, that are usually focused on practicing a specific skill, and that usually involve the use of simple static mannequins or part task trainers.

- Medium fidelitysimulation (PHCA)

Experiences in simulation in which learning systems are used, generally self-directed by screen, or the use of medium-fidelity dummies, which may have physiological sounds or other characteristics that allow little interaction with oneself; however, this simulation is usually aimed at making decisions, perfecting a skill or working on problem solving.

- High fidelity simulation (PSCA)

Experiences that include the use of standardized patients or extremely realistic integrated mannequins, Human Patients Simulators, and that guarantee students the possibility to interact. This simulation, given the realistic reproduction and the use of advanced technology to represent situations with real patients, tends to focus on decision making, contextualized problem solving, learning to prioritize, etc.

Taking all this into account, the contents of the subject are distributed in different blocks of work with different practices, which include low, medium and high fidelity in different cases to work on:

- Administration of blood derivatives.
- Creation of sterile field and care of different types of wound.
- Administration of drugs by different routes.
- Assessment and measurement of vital signs. Application of measurement scales.
- Continuous infusion systems.
- Venous extraction, handling of the peripheral catheter, blood cultures and gas measurements.
- Central catheter handling.
- Administration of oxygen therapy and respiratory physiotherapy.
- Detection and handling of different types of insulation.
- Basic/advanced CPR protocol.
- Handling devices for caring for people when they are critical, such as respirators.
- PVC monitoring.

Activities and Methodology

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Advanced Clinical Simulation Practices (PSCA)	25	1	3, 2, 11, 1, 6, 7, 9, 10, 8, 18, 17, 15, 16, 13, 12, 20, 19, 5, 4
Advanced Clinical Skills Practices in Humans (PHCA)	15	0.6	3, 2, 1, 6, 7, 9, 8, 18, 13, 12, 20, 19, 5
Theory	9	0.36	1, 9, 8, 15, 16, 20, 5
Type: Autonomous			
SELF-STUDY / READING ARTICLES / REPORTS OF INTEREST	23	0.92	8, 17, 15, 16, 12, 20, 5

The main objective of the Advanced Human Clinical Skills Practice (PHCA) and Practice of Advanced Clinical Simulation (PSCA) is to acquire clinical skills, more or less complex, through the simulated manipulation of techniques and procedures. The two types of practice will be carried out in small groups with the presence of teachers who will supervise, guide and lead the training activity.

To be able to carry out these practices and prior to the PHCA and PSCA sessions, the students must work on the theoretical content of each procedure, for this reason a THEORETICAL content will be taught where the main protocols to be worked on will be exposed and developed. This content will require independent work outside the classroom to finish reasoning the knowledge received theoretically.

The PSCA will require the video recording to be able to perform the dynamics of the simulation, so the students will have to authorize this recording to be able to carry out the activity. At the end of the sessions, the recordings are deleted.

The content of the subject will be done in 3 large blocks, each block will contain a theoretical session (2-3h), a PHCA session (3h) and a PSCA session (4h), with the exception of the last block that will contain two sessions of PSCA instead of one, one of which will be evaluative.

Therefore, different teaching-learning activities will be carried out:

- Resolution of practical clinical cases.
- Group critical reflection of the case carried out.
- Master theoretical classes.

The sessions are based on interactive work between the teacher and the students. Their active participation in the proposed activities is considered essential.

Note: 15 minutes of a class will be reserved, within the calendar established by the center/degree, for the completion by the students of the evaluation surveys of the teachers' performance and the evaluation of the subject/module.

Annotation: Within the schedule set by the centre or degree programme, 15 minutes of one class will be reserved for students to evaluate their lecturers and their courses or modules through questionnaires.

Assessment

Continous Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Active participation and assessment of practical types: objective and structured assessment	40%	1.5	0.06	3, 2, 11, 1, 6, 7, 9, 10, 8, 18, 17, 15, 16, 14, 13, 12, 20, 19, 5, 4
Written evaluation using objective tests: multiple response items.	45	1	0.04	18, 17, 15, 16, 20, 5
Written evaluation using objective tests: multiple response items.	15	0.5	0.02	18, 17, 15, 16, 20

1. Written assessment through objective tests (60% final mark):

Its objective is to evaluate the acquisition of knowledge of the subject worked through the different training activities (skills practice, high-fidelity simulated practice and theoretical content).

There will be a test at the end of the first block (with a value of 15% of the final grade) and another test once the teaching of the subject has been completed (with a value of 45% of the final grade). They can be presented in various formats. One option: quiz-type questions with 4 answer options. Errors are subtracted according to the following formula: $x = \text{hits} (\text{errors} / n - 1)$, where n is the number of answer options. Another option: questions with dichotomous answers (yes / no). Or, the option of short questions.

They can be done through the MOODLE platform or in person in the classroom.

The two tests account for 60% of the final grade.

2. Practical assessment: objective and structured assessment (40% final mark):

The objective is to assess the active participation in class in all phases of the simulation session (either during the development of the cases or during the reflection carried out after the practice) and the resolution of the practical individual or group clinical case of PSCA.

This assessment part accounts for 40% of the final grade.

This subject does not provide for the single assessment system.

Relevant aspects to obtain the score:

- A minimum score of 5 points out of 10 is required to pass the subject, in all assessment tests.
- Attendance at PHCA / PSCA and compliance with the timetable are two mandatory aspects. Attendance at the THEORY sessions will not be compulsory but highly recommended.
- List will be passed before each PHCA/PSCA session.

- Given the characteristics of this teaching typology, its recovery is not contemplated.
- Students who fail to attend more than one PHCA or PSCA session will not be assessed and will not be able to take the final exam. Only 1 absence is allowed for all sessions throughout the course. Failure to attend the session will result in a penalty of 2 points in the final grade. The last session of PSCA is mandatory.
- Students who attend PHCA/PSCA sessions 15 minutes late (or more) will be penalized by one point in the final grade.
- Students who attend the PHCA/PSCA sessions without wearing the correct uniform (complete practice pyjamas, clogs) will have a penalty of half a point in the final grade.
- Individual changes will NOT be allowed in assigned groups. If any change is made, it must be the student himself who is responsible for finding a person who wants to make the group change. These changes must be reported to the coordinator's email at least 48 hours before the face-to-face session (PHCA/PSCA). Any change not communicated before 48 hours will not be effective and the session will be considered not completed. Requests made less than 48 hours before the session will not be taken into account.
- If there is an urgent time incompatibility when doing the sessions, you must write an email to the coordinator and you must ALWAYS attach the official proof that validates the incompatibility and that requires a change of schedule. In no case does this justify the non-performance of the session, but the need to change the schedule.
- Timetables for all sessions will be available from the beginning of the course. Therefore, labor issues with an accredited contract will never be a reason for urgency to request an urgent schedule change. These circumstances will not be considered "emergencies".

Obtaining the final grade:

The final grade of the subject is the sum of the grades of the proposed assessment activities.

The requirement to be able to perform this sum is to have obtained the minimum score required in each part.

Failure to pass any or all of these parts implies failure to pass the subject.

It will be understood as non-evaluable and will be scored with a zero for that student who has not attended any or all of the assessment activities.

The evaluation of special and particular situations will be studied by an evaluation committee set up for this purpose, in order to design, if necessary, a final recovery test.

Students who have not passed the subject will be able to sit a final exam or a final make-up test. To be entitled to the final make-up test, you must have sat all the assessment tests. Students have the right to review the assessment tests. For this purpose, the date will be specified on the Virtual Campus.

According to agreement 4.4 of the Governing Council 17/11/2010 of the evaluation regulations, the grades will be:

- From 0 to 4.9 = Suspension
- From 5.0 to 6.9 = Passed
- From 7.0 to 8.9 = Notable
- From 9.0 to 10 = Excellent

When the student does not attend any or all of the planned assessment activities, he will receive the grade of non-evaluable and will be scored as zero.

Bibliography

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Software

No software is required to complete the course.

Language list

Name	Group	Language	Semester	Turn
(TE) Theory	301	Catalan/Spanish	annual	morning-mixed