



Universitat de Lleida

DEGREE CURRICULUM  
**ICT AND HEALTH APPLIED TO  
CHRONIC PATIENTS CARE**

Coordination: SERRA ESCARP, OLGA

Academic year 2023-24

Subject's general information

<b>Subject name</b>	ICT AND HEALTH APPLIED TO CHRONIC PATIENTS CARE			
<b>Code</b>	100680			
<b>Semester</b>	1st Q(SEMESTER) CONTINUED EVALUATION			
<b>Typology</b>	<b>Degree</b>	<b>Course</b>	<b>Character</b>	<b>Modality</b>
	Bachelor's Degree in Nursing	4	OPTIONAL	Attendance-based
<b>Course number of credits (ECTS)</b>	6			
<b>Type of activity, credits, and groups</b>	<b>Activity type</b>	TEORIA		
	<b>Number of credits</b>	6		
	<b>Number of groups</b>	1		
<b>Coordination</b>	SERRA ESCARP, OLGA			
<b>Department</b>	NURSING AND PHYSIOTHERAPY			
<b>Teaching load distribution between lectures and independent student work</b>	Theoretical participatory class: 30 h 100% presence Seminars: 26 h 100% presence Autonomous work: 90 h 0% face-to-face Tutorials: 4 h 100% presence  Total: 150h			
<b>Important information on data processing</b>	Consult <a href="#">this link</a> for more information.			
<b>Language</b>	Catalan Spanish			
<b>Distribution of credits</b>	6 ECTS:  - 50%: Theoretical class - 50%: Practice seminars			

Teaching staff	E-mail addresses	Credits taught by teacher	Office and hour of attention
BARRANCO REIXACHS, DAVID	david.barranco@udl.cat	1,6	
MARTINEZ SOLDEVILA, JORDI	jordi.martinezsoldevila@udl.cat	2,4	
SELVA PAREJA, LAIA	laia.selva@udl.cat	0	
SERRA ESCARP, OLGA	olga.serra@udl.cat	2	

## Subject's extra information

Continuous work is recommended throughout the semester.

It is necessary to check the UdL's email every day and visit frequently the Virtual Campus spaces associated to the subject, these will be the communication systems of the subject among the different teachers and students.

## Learning objectives

- To identify the benefits of the use of ICTs in the management of health situations.
- Evaluate intervention programmes based on the use of ICTs (prevention, promotion, healing, etc.) in different age groups.
- Design an intervention programme based on the use of ICTs.

## Competences

### Basic Skills:

- CB2. Apply their knowledge to their work or vocation in a professional manner and possess the skills that are usually demonstrated through the elaboration and defense of arguments and the resolution of problems within their area of study.
- CB4. To be able to transmit information, ideas, problems and solutions to both specialized and non-specialized audiences.
- CB3. Ability to gather and interpret relevant data (usually within their area of study) to make judgments that include a reflection on relevant social, scientific or ethical issues.

### Specific:

- CE9. Apply health care information and communication technologies and systems. CE13. Utilizar estrategias y habilidades que permitan una comunicación efectiva con pacientes, familias y grupos sociales, así como la expresión de sus preocupaciones e intereses
- CE12. Establish an empathetic and respectful relationship with the patient and family, according to the person's situation, health problem and stage of development.

- CE13. Use strategies and skills that enable effective communication with patients, families and social groups, as well as the expression of their concerns and interests.

## Transversal:

- CT3. To acquire training in the use of new technologies and information and communication technologies.

## Subject contents

**Module 1: ICT and Health applied to the care of chronic patients** (*corresponds to module 2 of the current memory of the Degree in Nursing*)

- Block 1. Information and communication technologies in health care: impact.
  - Theme 1. Basic knowledge of ICT and e-Health.
    - History and evolution of ICT.
    - Conceptualisation.
  - Theme 2. Resources and methodology for the analysis and design of an intervention using ICTs.
    - Definition of the study population.
    - User-centred design methodologies: human-computer interaction (human method).
    - Databases and research on ICTs and chronicity.
  - Theme 3. The role of nursing in eHealth.
    - Basic concepts and terminologies of ICT and innovation in health care.
    - Identity and fingerprinting.
  - Theme 4. Ethical and legal framework of ICT and Health 2.0.
    - Ethics and the use of ICTs.
    - Analysis of data, information and records.
    - Security and privacy.
  - Theme 5. ICT development and its application in health.
    - Detection and analysis of existing resources.
    - Actors and entities linked to the technology and health communication sector.
    - Digital competence and digital literacy.
- Block 2. Internet, web and mobile phone applications in health situations.
  - Theme 6. Learning to use different resources linked to ICTs and health.
  - Theme 7. Possibilities, limitations and the future of ICT and e-Health.
    - ICT-enabled health care strategies and strategies for the future.
    - App approval systems.
- Block 3. Evaluation of national and international health interventions and programmes.
  - Theme 8. Visibility, identification of key points and assessment of different projects carried out through the use of ICTs..
  - Theme 9. Communication and Digital Health.
    - Evaluating ICTs and their application in health: a communication strategy.

## Methodology

**The teaching methodologies of the subject will consist of:**

- Master Class
- Group Work
- Individual works
- Problem resolution
- Colloquiums and conferences.

## Development plan

The development plan will be posted in the resources section in the Calendar and schedule folder of the subject.

ECTS	Classroom activities (40 %)	Non-contact activities: Student's autonomous work (60%)	Total student hours
6	Theoretical class (50%) - 30 h Class practices/mentoring (50%) - 30 h	90 h	150 h

The sessions can be recorded, for this reason the University of Lleida (UdL) informs that, for teaching purposes, will record images that identify students and other people who participate in academic activities. The responsible person for processing these images is the UdL (contact details of the representative: Secretaria General. Plaça de Víctor Siurana, 1, 25003 Lleida, sg@udl.cat; contact details of the data protection officer: dpd@udl.cat). These images are only used for teaching, assessing subject's knowledge and for teaching improvement projects. The use of the images responds to the legal obligation of the UdL to teach and improve university teaching, in accordance with Organic Law 6/2001, of 21 December, on universities. The images, once recorded, are kept at least as long as they do not prescribe the corresponding actions and claims against the evaluation approved by the teacher. They are destroyed in the terms and conditions provided for in the regulations on the conservation and disposal of the administrative documents of the UdL, and the document evaluation tables approved by the Generalitat de Catalunya (<http://www.udl.cat/ca/serveis/arxiu/>). The UdL will never communicate this data to third parties, except in the cases strictly provided for in the Law. Interested people can access to their images; request rectification, deletion or portability; oppose the treatment and request its limitation, by writing to the address dpd@udl.cat </src/compose.php?send\_to=dpd@udl.cat>. They can also submit a complaint addressed to the Catalan Data Protection Authority, through the electronic headquarters of the Authority (<https://seu.apd.cat>) or by non-electronic media.

## Evaluation

### OVERVIEW

- Consult the Guide on Plagiarism and Academic Honesty of the Faculty of Nursing and Physiotherapy of the University of Lleida: <https://www.fif.udl.cat/ca/estudis/normativa/>
- Regarding the **environment**: only papers submitted electronically will be accepted. No paper or binding is required.
- Consult the Regulations for the Assessment and Grading of Learning in Bachelor's and Master's Degrees at the UdL (approved by Agreement 33/2020 of the Governing Council on 18.02.2020 and modified by agreement 235/2022 of the Governing Council on 21.07.2022, modified by agreement 36/3034 of the Governing Council on 28.02.2023 and modified by agreement 187/2023 of the Governing Council on 29.06.2023): <https://www.udl.cat/ca/udl/norma/ordenaci-/>

### CONTINUOUS ASSESSMENT

The evaluation system of the subject consists on four blocks:

BLOCK	Evaluation system	Minimum - maximum weighting according to the report of the Degree in Nursing	Weighting in the subject
1	<b>Written test:</b> open-closed questionnaire, test or clinical case.	30 % - 60 %	30 %
2	<b>Observation-based instruments:</b> monitoring, participation and follow-up	20 % - 50 %	25 %
3	<b>Work done by students:</b> group and/or individual solving of cases, problems or exercises.	30 % - 60 %	35 %

4	<b>Work carried out by students:</b> individual participation activities in forums, solving cases, problems or exercises.	10 %
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Assessment activities are organised in blocks and each block may contain one or more related assessment activities.

As established in article "4.1. Continuous assessment" of the Regulations for the Assessment and Grading of Learning in the UdL Bachelor's and Master's Degrees and Master's Degrees, "Assessment in UdL studies is a continuous process within the teaching period established for the subject, in accordance with the sequencing of the syllabus and the academic calendar. Continuous assessment is understood as the set of activities of an assessable nature indicated in the teaching guide that are developed in a progressive and integrated manner during the academic year and that must be relevant and significant to assess and quantify the progress of students in achieving the knowledge, skills and abilities that make up the specific and defining competences of the subject or subject. The aim of continuous assessment is for students to be able to know their progress throughout the training process in order to enable them to improve it".

**The following criteria will be taken into account for the continuous assessment of this subject:**

- **BLOCK 1.** Written test of the theoretical content: 30% of the final mark.

The written test will be carried out in virtual mode and may consist of open/closed questions, a test or a clinical case. In the case of a multiple-choice test, incorrect answers will be deducted 0.25/10. The test can be taken individually, in pairs or in small groups of three or four people.

- **BLOCK 2.** Instruments based on observation: 25 % of the final mark. Control of attendance, participation and class follow-up.
- **BLOCK 3.** Work carried out by students: 35 % of the final mark. Design and elaboration of a group/individual work of an intervention programme based on the use of ICT.
  - 25 % written work.
  - 10 % oral defence. In the event of non-attendance (unjustified) on the day of the oral presentation, the mark of the person in the group who did not attend will be 0 (the group mark does not correspond to him/her). If the absence is justified, 35 % of this block corresponds to the mark for the written work (the person who did not attend will not have the group mark for the oral presentation).
- **BLOCK 4.** Work done by the student: 10 % of the final mark. Individual participation in a forum in the virtual campus space for the creation of a glossary. Participation involves incorporating a minimum of three words that have not yet been added to the glossary (a participation with three words will have a maximum mark of 6/10).

All grades are published individually in the **grading tool** of the subject. According to article "12.1. Results of the assessment activities and final grade" of the Regulations for the Assessment and Grading of Learning in the Bachelor's and Master's Degrees at the UdL, "lecturers must publish the results of the assessment activities - in the case of continuous assessment - no later than fifteen working days after their completion and at least two working days before the make-up exam. Students have the right to review the results of the assessment activity".

**It is necessary to pass each block 1 and 3 with a minimum mark of 5 in order to be able to take the average.** As stated in article "4.5. Continuous assessment" of the Regulations for the Assessment and Grading of Learning in Degrees and Masters at the UdL, "in the event that the student does not achieve the minimum grade established in any of the blocks of the assessment, but the average of the subject is approved, the subject will be graded in the minutes with a 4.9".

As stated in article "4.5. Continuous assessment" of the Regulations for the Assessment and Grading of Learning in the Bachelor's and Master's Degrees at the UdL, "the assessment blocks that have a minimum grade or that have a weight equal to or more than 30% of the final grade must be **compulsorily entitled to recovery**".

In relation to the **justification of absences**, the reasons for which the absence is considered to be justified will be the same as those set out in article "9.8. Development of assessment activities" in the Regulations for the Assessment and Grading of Learning in the Degrees and Masters at the UdL, "the student who cannot attend the assessment activities that are listed and scheduled in the teaching guide of the subject -or, or, where appropriate,

on the website of the bachelor's or master's degree, or in the final exams, for any of the reasons set out below, shall be entitled to have the lecturer responsible for the subject set a new date, after hearing the student, so that he/she can carry it out properly":

- a. Due to illness, which must be duly justified by a medical certificate.
- b. Due to coincidence, on the day and time, with another assessment procedure of a subject of an official bachelor's or master's degree taught at the UdL.
- c. Due to the death of a direct relative up to the second degree of consanguinity and up to the first degree of affinity, occurring within the seven days prior to the scheduled date of the evaluation test.
- d. Coincidence with official activities of high-level and high-performance athletes, both national and international.
- e. For coincidence on the same day with meetings of the governing and representative bodies of the University, for students who carry out student representation tasks, with prior justification of this fact to the lecturer responsible.
- f. Absence as a consequence of participation in an official student mobility process.
- g. In the case of students of the UdLxTothom Programme with a chronic or acute illness, when the student requests and accredits that it will not be possible to deliver or carry out an evaluation activity of the subject on the scheduled date due to a chronic or acute illness, the deadline for delivery or scheduling of the evaluation activity will be extended for a minimum of ten days and at most until the last day of evaluation of the semester.
- h. In other cases that can be justified and assessed by the Centre's Studies Commission.

The justification of absences must be done via message through the tool and the space of the subject in the Virtual Campus and requests for justification of absences that involve non-attendance in a class will have to be submitted, at the latest, within 7 days. In general, students will only be excused for absence, but not for failure to fulfil their academic commitments.

## **ALTERNATIVE EVALUATION**

To facilitate work or family reconciliation, the student who wishes to do so has the right to waive the continuous assessment at the beginning of each semester and to carry out an alternative assessment. As established in the following points of the article "5. Alternative Assessment" of the Regulations of the Assessment and Grading of Learning in the Degrees and Masters at the UdL:

- 2. Students who wish to take advantage of alternative assessment must present an employment contract or justify, in writing to the dean or director of the centre, the reasons that make it impossible for them to take the continuous assessment.
- 3. The Studies Committee of the faculty or school responsible for the Bachelor's or Master's degree course may establish the mechanisms and conditions under which students may exercise this right, the deadline for submitting applications, and the supporting documentation to be provided.
- 8. Students who make use of the alternative assessment have the same rights and, therefore, have the right to retake the course under the same conditions as students who take the continuous assessment.

This alternative assessment consists of:

- **BLOCK 1.** Written test of the theoretical content: 30% of the final mark.

The written test will be carried out in virtual mode and may consist of open/closed questions, a test or a clinical case. In the case of a multiple-choice test, incorrect answers will be deducted 0.25/10. The test can be taken individually, in pairs or in small groups of three or four people.

- **BLOCK 2.** Instruments based on observation: 25 % of the final mark. Students who choose this assessment mode must attend the work presentation class (block 4) and must submit a report containing a summary and a final reflection on the topics covered in the course and in each of the activities carried out.

- **BLOCK 3.** Work carried out by students: 35 % of the final mark. Design and elaboration of a group/individual work of an intervention programme based on the use of ICT.
  - 25 % written work.
  - 10 % oral defence. In the event of non-attendance (unjustified) on the day of the oral presentation, the mark of the person in the group who did not attend will be 0 (the group mark does not correspond to him/her). If the absence is justified, 35 % of this block corresponds to the mark for the written work (the person who did not attend will not have the group mark for the oral presentation).
- **BLOCK 4.** Work done by the student: 10 % of the final mark. Individual participation in a forum in the virtual campus space for the creation of a glossary. Participation involves incorporating a minimum of three words that have not yet been added to the glossary (a participation with three words will have a maximum mark of 6/10).

Consult the **internal regulations for alternative assessment in the Bachelor's and Master's degrees** of the Faculty of Nursing and Physiotherapy: <https://www.fif.udl.cat/ca/estudis/normativa/>

## Bibliography

### Webgraphy

1. [http://salutweb.gencat.cat/ca/el\\_departament/Pla\\_salut/pla-de-salut-2016-2020/](http://salutweb.gencat.cat/ca/el_departament/Pla_salut/pla-de-salut-2016-2020/)
2. <https://ticsalutsocial.cat/>
3. <https://empresas.blogthinkbig.com/el-papel-clave-de-las-tic-en-las-enfermedades-cronicas/>
4. <https://empresas.blogthinkbig.com/ehealth/>
5. [https://www.who.int/topics/chronic\\_diseases/es/](https://www.who.int/topics/chronic_diseases/es/)

### Articles

1. Aguaiza, D., Santos, M., y García, M. (2018). El rol de las TICs en la reducción de la brecha para el acceso a la salud. *Rehuso*, 3(2), 57-66. Recuperado de: <https://revistas.utm.edu.ec/index.php/Rehuso/article/view/1375/1252>
2. Campos de Aldana MS, Moya Plata D, Mendoza Matajira JD, Duran Niño EY. Las enfermedades crónicas no transmisibles y el uso de tecnologías de información y comunicación: revisión sistemática. *Rev. Cuid.* 2014; 5(1): 661-9.
3. Prado-Cucho S. y Bendezú-Quispe G. Uso de tecnologías de la información y comunicación (TIC) para mejorar la adherencia al tratamiento en pacientes con enfermedades crónicas. *Rev Med Hered.* 2013; 24:82-83.
4. García Cuyàs F, De de San Pedro M, Ledesma Castelltor A. Las TICs y la Gestión de Pacientes Crónicos. *Sociedad Española de Informática y Salud · Nº 105 · Junio 2014 Especial Las TIC para la atención a crónicos.*