

Integrated Learning in Medicine I

Code: 103633
ECTS Credits: 4

Degree	Type	Year	Semester
2502442 Medicine	OB	1	2

Contact

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Use of Languages

Principal working language: catalan (cat)
Some groups entirely in English: No
Some groups entirely in Catalan: No
Some groups entirely in Spanish: No

Other comments on languages

Each of the different instructors will use the language of her/his preference: Catalan, Spanish or English.

Teachers

José Aguilera Ávila
José Sanchez Aldeguer
Pere Jordi Fàbregas Batlle
Juan Tony Sousa Valente
Juan Manuel Villamizar Avendaño
Eva De Cardona Recasens
Maria Puigdomenech Poch
Alejandro Fernández León
Edgar Buloz Osorio
Èric Catalina Hernández
Angel Guerra Moreno
Alejandro Gella Concustell
Carlos Alberto Acosta Rizo

Prerequisites

There are no prerequisites.

Objectives and Contextualisation

For practical reasons, Medical studies are organized according to independent courses that relate with different areas of knowledge. However, such division does not occur within the human body, in the basis of diseases, diagnostic methods or treatments. Thus, the physician must face and solve complex scenarios in her/his daily practice, which require the integrated use of knowledge and competences from different areas. And s/he must do so by means of an efficient and critical management of the vast and growing amount of available information.

In addition, current medical practice requires the collaborative work of professional teams, based on interdependence, individual responsibility and mutual trust.

Finally, in recent years, the leading Medical Schools have reduced the load of theoretical teaching to focus more and more on integrated, meaningful and active learning, based on team collaborative learning, a more effective approach for the acquisition of competencies.

Based on such triple analysis, the course defines the following objectives:

- To offer a first integrated learning experience in Medicine. Starting from the application and interrelation of the knowledge and competences acquired in the first year courses. Using such base to carry out autonomous forays into more advanced areas whenever it is required to fully understand the medical cases under study (*learning to learn* competence). Integrating basic and clinical disciplines, to apply biomedical principles to understand the cause-effect relationships of diseases.
- To offer a first experience to develop collaborative learning competences. Including, among others, the ability to formulate the right questions, *peer instruction*, evidence-based argumentation, and the ability to reach consensus conclusions.

In addition, the course assumes the following competences:

- Communicating clearly (meeting or medical congress).
- Critically analysing research articles in English.
- Learning to keep up with professional advancements, based on autonomous learning of novel knowledge.

Competences

- Be able to work in an international context.
- Communicate clearly, orally and in writing, with other professionals and the media.
- Convey knowledge and techniques to professionals working in other fields.
- Critically assess and use clinical and biomedical information sources to obtain, organise, interpret and present information on science and health.
- Demonstrate basic research skills.
- Demonstrate understanding of basic statistical methodologies used in biomedical and clinical studies and use the analytic tools of modern computational technology.
- Demonstrate, in professional activity, a perspective that is critical, creative and research-oriented.
- Engage in professional practice with respect for patients' autonomy, beliefs and culture, and for other healthcare professionals, showing an aptitude for teamwork.
- Maintain and sharpen one's professional competence, in particular by independently learning new material and techniques and by focusing on quality.
- Organise and plan time and workload in professional activity.
- Use information and communication technologies in professional practice.

Learning Outcomes

1. Accept other viewpoints (lecturers, colleagues, etc.) regarding the problem or topic at hand.
2. Analyse the structure of different models of medical journal articles.

3. Be able to work in an international context.
4. Be self-critical and reflect on one's own learning.
5. Communicate clearly, orally and in writing, with other professionals and the media.
6. Convey knowledge and techniques to professionals working in other fields.
7. Correctly apply statistical techniques to obtain benchmark values and compare them to the results of analytic tests on patients.
8. Critically analyse a scientific article in English.
9. Demonstrate basic research skills.
10. Demonstrate, in professional activity, a perspective that is critical, creative and research-oriented.
11. Describe the elements that should be considered when determining the reasons for a consultation and those of the patient's therapeutic itinerary.
12. Identify sources of information on analytic tests for patients and professionals and critically evaluate their content.
13. Maintain and sharpen one's professional competence, in particular by independently learning new material and techniques and by focusing on quality.
14. Organise and plan time and workload in professional activity.
15. Recognise the different types of health science journals.
16. Use appropriate statistical techniques to study the semiological value of analytic tests.
17. Use biomedical databases.
18. Use information and communication technologies in professional practice.
19. Use the rules of the Vancouver system when writing research reports.

Content

The course is structured in two modules with independent objectives, contents and evaluation:

Module Research Initiation Workshop (TIR)

- Search of biomedical and clinical documents in medical databases.
- Treatment and analysis of bibliographic data.

Module Study of Medical Cases (ECM)

- Solving two medical cases by means of an integrated, collaborative approach.

Methodology

Training activities and teaching methodology

1- TIR module

- Guided activities: Presentation of tools and tasks in sessions TIR1, TIR2 and TIR3.
- Supervised activities: Collaborative teamwork in the classroom, interacting with the tutor, sessions TIR1, TIR2 and TIR3. Tutorials.
- Autonomous activities: Individual research and collaborative team discussions outside of the classroom. Preparation of the written report. Preparation and rehearsal of the oral presentation.
- Evaluation activities: Oral presentation and defense of the results, session TIR4.

2- ECM module

- Guided activities: Course general presentation. Introduction to the medical cases and to the work approach in sessions ECM1, ECM2, ECM4 and ECM5.
- Supervised activities: Collaborative teamwork in the classroom to achieve the learning objectives, interacting with the tutor, sessions ECM1, ECM2, ECM4 and ECM5. Tutorials.
- Autonomous activities: Individual research and collaborative team discussions. Preparation and rehearsal of the oral presentations.

- Evaluation activities: Oral presentations and defense of learning outcomes, ECM3 and ECM6 sessions.

Structure

1- Course presentation

2- TIR module:

- Face-to-face session TIR1: Biomedical databases and information retrieval systems.
- Face-to-face session TIR2: Bibliographic processing and bibliographic management programs.
- Face-to-face session TIR3: Interpretation of the information and bibliographic analysis.
- Autonomous work outside of the classroom: Preparation of the results report. Preparation and rehearsal of the oral presentation.
- Face-to-face session TIR4: Evaluated oral presentations. Self-evaluation and cross-evaluation.

Evaluated tasks

- Results from session TIR2.
- Written report of the bibliographic research results.
- Oral presentation and defense of the results.

3- ECM module

Two medical cases

- Face-to-face sessions ECM1 and ECM4: Introduction to the medical case and to the work approach. Collaborative team work to define the initial learning objectives.
- Autonomous work outside of the classroom: Study of the learning objectives in preparation for the next face-to-face session.
- Face-to-face sessions ECM2 and ECM5: Self-evaluation. Feedback from the tutor on the reported initial learning objectives. Collaborative team work to define the final learning objectives.
- Autonomous work outside of the classroom: Study of learning objectives. Preparation and rehearsal of the learning outcomes presentation.
- Face-to-face sessions ECM3 and ECM6: Evaluated oral presentations. Self-evaluation and cross-evaluation.

Evaluated tasks (for each of the two cases):

- Written report of the initial learning objectives.
- Written report of the final learning objectives.
- Presentation and oral defense of the learning outcomes.

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.

Activities

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Presentation of the structure of the sessions, tools, and cases	3.5	0.14	1, 5, 10, 15, 6, 4, 13, 14, 3, 18, 16
Type: Supervised			
Collaborative team work in the classroom	14.5	0.58	1, 8, 2, 7, 5, 9, 10, 11, 15, 6, 4, 12, 13, 14, 3, 17, 19, 18, 16

Tutorials	3	0.12	1, 5, 6, 4, 13, 14, 3, 18
Type: Autonomous			
Individual research and study; collaborative discussions outside of the classroom; preparation of written reports and oral presentations	66.5	2.66	1, 8, 2, 7, 5, 9, 10, 11, 15, 6, 4, 12, 13, 14, 3, 17, 19, 18, 16

Assessment

The competences achieved in the TIR Module will be evaluated through the results achieved at the end of session TIR2 (10% of the mark of this module), a written report of the bibliographic research (40% of the mark of this module), and the oral presentation and defence of the results, with a balanced participation of all the team members (50% of the mark of this module). The mark will in principle be the same for all the members of the team, as one of the key competences in the course is to develop skills in collaborative work, based on interdependence, mutual trust and individual responsibility. However, the instructor may adjust the grade depending on the individual implication. This module contributes 1/3 to the final mark.

The competences achieved in the ECM Module will be evaluated through two written reports of learning objectives per case (initial objectives after sessions ECM1 and ECM4, and final objectives after sessions ECM2 and ECM5), and the oral presentation and defence of the learning results (sessions ECM3 and ECM6). For each of the two cases the mark will be calculated from the two reports of objectives (25% each), and the oral presentation of the learning results (50%). For case 1, the different parts of the presentation will be raffled among the team members at the time of presentation. For case 2, the team member in charge of the presentation will be drawn at the time of presentation. The mark will in principle be the same for all the members of the team, as one of the key competences in the course is to develop skills in collaborative work, based on interdependence, mutual trust and individual responsibility. However, the instructor may adjust the grade depending on the individual implication. Each of the two cases in this module contributes 1/3 to the finalmark.

In all, the final mark will be calculated according to TIR mark /3 + ECM mark *2/3.

Given that competence learning in this course is based on collaborative work, attendance to the 10 face-to-face sessions is compulsory. Each missed session will get a zero for the corresponding assignment unless due to a documented force majeure.

To pass the course the final mark must reach 5 points out of 10. Because evaluation is based on continuous assessment of competence learning along the semester, there are no referral tests.

In agreement to UAB regulations, those students who handed-in evaluated evidences amounting for at least 40% of the total will not be eligible for a 'non-assessable' qualification, thus exhausting the rights related to the enrolment to the course.

Misconduct policy. In agreement to UAB regulations, a student that plagiarises a task, or attributes herself/himself a task that s/he did not author, will get a 0 in that evaluation. If misconduct occurs more than once, the final mark for the course will be 0. In that event, the case will be reported to the Coordinator of the Degree in Medicine and the Dean of the School of Medicine.

Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Evaluation of 5 written reports (TIR2, TIR4, ECM1, ECM2, ECM4, ECM5)	50%	5	0.2	1, 8, 2, 7, 5, 9, 10, 11, 15, 6, 4, 12, 13, 14, 3, 17, 19, 18, 16

Evaluation of three oral presentations and defences of the learning evidences (TIR4, ECM3, ECM6)	50%	7.5	0.3	1, 8, 2, 7, 5, 9, 10, 11, 15, 6, 4, 12, 13, 14, 3, 17, 19, 18, 16
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Bibliography

Specific articles and online resources will be provided at the onset of each of the modules.

Software

UAB License: Excel and Mendeley.