Universitat Autònoma de Barcelona

2023/2024

Integrated Learning in Medicine I

Code: 103633
ECTS Credits: 4

Degree	Type	Year	Semester
2502442 Medicine	OB	1	2

Contact

Name: David Garcia Quintana

Email: davidg.quintana@uab.cat

Teaching groups languages

You can check it through this link. To consult the language you will need to enter the CODE of the subject. Please note that this information is provisional until 30 November 2023.

Teachers

Carles Gil Giro

Pere Jordi Fàbregas Batlle

Juan Tony Sousa Valente

Juan Manuel Villamizar Avendaño

Enric Serra Bou

Eva De Cardona Recasens

Maria Puigdomenech Poch

Alejandro Fernández León

Edgar Buloz Osorio

Sergi Alabau Rodriguez

Èric Catalina Hernández

Gemma Domenech Gomez

Albert Gubern Burset

Angel Guerra Moreno

Alejandro Gella Concustell

Carlos Alberto Acosta Rizo

Victor Sapena Masip

Maria Terradas Ill

Prerequisites

Students enrolled in second year PCA2, please sign up for visits to the CAP in the afternoon shift, to avoid absences from AIM1 morning sessions. Alleging a coincident visit of PCA2 will not be considered a justified reason to exempt attendance to an AIM1 work session, and will therefore affect the grade.

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 incursions 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.
- How to aproach a medical case.

Module Study of Medical Cases (ECM)

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

Methodology

AIM1 is an atypical course in terms of workload, learning methodology and evaluation:

- The course is worth 4 ECTS, which imply 100 hours of total workload for the student. Unlike practically all other courses, face-to-face attendance is minimal, restricted to 17 hours of collaborative work sessions plus 8 hours of evaluated learning results presentations (equivalent to exams).
- For this reason, it must be understood that the bulk of learning is based on autonomous work outside of the classroom. It is not a disproportionate workload but a different proportion than usual.
- The learning results are evaluated from their presentation. There are no exams. For this reason it is necessary to understand that the presentations of results have the range of evaluation, thus requiring the same rigour, dedication and time as those required for the preparation of an exam.

Training activities and teaching methodology

1- TIR module

- Supervised activities: Collaborative teamwork in the classroom, interacting with the tutor, sessions TIR1, TIR2 and TIR3. Face-to-face attendance is minimal but essential to reach the objectives and results.
- Autonomous activities: Individual research and collaborative team discussions outside of the classroom; preparation of the results written report, evaluated; preparation and rehearsal of the oral presentation, evaluated. They constitute the bulk of workload.
- Evaluation activities: Submission of a preliminary results report at the end of session TIR2; submission of the results written report before session TIR4; oral presentation and defense of the results in session TIR4.

2- ECM module

- Supervised activities: Collaborative teamwork in the classroom to achieve the learning objectives, interacting with the tutor, sessions ECM1, ECM2, ECM4 and ECM5. Face-to-face attendance is minimal but essential to reach the objectives and results.
- Autonomous activities: Individual research and collaborative team discussions outside of the classroom; preparation and rehearsal of the oral presentations. Autonomous activities constitute the bulk of the course workload.
- Evaluation activities: Oral presentations and defense of learning results, ECM3 and ECM6 sessions.

Structure

1- Course presentation

2- TIR module:

- Face-to-face collaborative teamwork session TIR1: Collaborative teamwork.
- Autonomous work outside of the classroom.
- Face-to-face collaborative teamwork session TIR2: Collaborative teamwork; submission of a preliminary results report (evaluated).
- Autonomous work outside of the classroom.
- Face-to-face collaborative teamwork session TIR3: Collaborative teamwork.
- Autonomous work outside of the classroom: Preparation of the evaluated written results report; preparation and rehearsal of the evaluated oral presentation of results.

- Face-to-face session TIR4: Evaluated oral presentations of results; critical self-evaluation and cross-evaluation.

3- ECM module

Two medical cases

- Face-to-face collaborative teamwork sessions ECM1 and ECM4: Work to idenfify the preliminary learning objectives, which are submitted at the end of the session (evaluated).
- Autonomous work outside of the classroom: Study of thelearning objectives in preparation for the next face-to-face session.
- Face-to-face collaborative teamwork sessions ECM2 and ECM5: Critical self-evaluation; feedback from the tutor on the reported initial learning objectives; collaborative team work to define the final learning objectives. At the end of the sessions, submission of the evaluated final learning objectives.
- Autonomous work outside of the classroom: Study of the learning objectives; preparation and rehearsal of the evaluated learning results presentation.
- Face-to-face sessions ECM3 and ECM6: Evaluated oral presentations of the learning results; critical self-evaluation and cross-evaluation.

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: Supervised			
Collaborative team work in the classroom	17	0.68	1, 8, 2, 7, 5, 9, 10, 11, 15, 6, 4, 12, 13, 14, 3, 17, 19, 18, 16
Type: Autonomous			
Individual research and study; collaborative discussions outside of the classroom; preparation of written reports and oral presentations	70	2.8	1, 8, 2, 7, 5, 9, 10, 11, 15, 6, 4, 12, 13, 14, 3, 17, 19, 18, 16

Assessment

The competencies achieved in the TIR Module will be evaluated through the results submitted 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, with the different parts of the presentation raffled among the team members at the time of presentation (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 competencies 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.

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 5.0 points out of 10. Because evaluation is based on continuous assessment of competence learning along the semester, there are no referral tests.

This course does not provide a single evaluation option.

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
3 oral presentations of the learning results (TIR4, ECM3, ECM6)	50%	8	0.32	1, 8, 2, 7, 5, 9, 10, 11, 15, 6, 4, 12, 13, 14, 3, 17, 19, 18, 16
5 evaluated 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

Bibliography

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

Software

UAB License: Excel and Mendeley.