Universitat Autònoma de Barcelona

2021/2022

Integrated Learning in Medicine I

Code: 103633
ECTS Credits: 4

Degree	Type	Year	Semester
2502442 Medicine	OB	1	2

The proposed teaching and assessment methodology that appear in the guide may be subject to changes as a result of the restrictions to face-to-face class attendance imposed by the health authorities.

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

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 the basic and the 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, 2 ECTS)

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

Module Study of Medical Cases (ECM, 2 ECTS)

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

Methodology

Training activities and teaching methodology (4 ECTS = 100 hours)

TIR Module, 2 ECTS = 50 hours

- Directed activities (25% = 12.5 hours). Face-to-face seminars, collaborative team work interacting with the instructor.
- Supervised activities (15% = 7.5 hours). Tutorials for the supervision of the team outcomes.
- Autonomous activities (55% = 27.5 hours). Individual research and team collaborative discussion.
- Evaluation activities (5% = 2.5 hours). Evaluation of the bibliographic research written report and its oral presentation and defence.

ECM Module, 2 ECTS = 50 hours (1 of which will be used to introduce the course)

- Directed activities (25% = 12 hours). Face-to-face seminars, collaborative team work interacting with the instructor.
- Supervised activities (15% = 7.5 hours). Tutorials for the supervision of the team outcomes.
- Autonomous activities (55% = 27 hours). Individual research and team collaborative discussion.
- Evaluation activities (5% = 2.5 hours). For each case, two written reports (preliminary and final learning objectives) and oral presentation and defence of the learning results.

Programme

1- Presentation of the course (1 h)

2- TIR Module

- Day 1 (3 h). The scientific medical documents.
- Day 2 (3 h). Bibliographic treatment, bibliographic management programs.
- Day 3 (3 h). Information Recovery Systems and databases in Medicine.
- Day 4 (3.5 h). Oral Presentations.

Evaluated assignments: Bibliographic research written report and oral presentation and defence.

3- ECM Module

For each case:

- Day1 (2h). Presentation of the case and team definition of the preliminary learning objectives.
- Day 2 (2 h). Collaborative team discussion to define the final learning objectives.
- Day 3 (2 h). Oral presentation and discussion of the learning results.

Evaluated assignments: For each case, two written reports (preliminary and final learning objectives) and oral presentation and defence of the learning results.

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			
Basic theoretical training	1	0.04	1, 5, 10, 6, 4, 13, 14, 3, 18
Practical learning	24.5	0.98	1, 8, 2, 7, 5, 9, 10, 11, 15, 6, 4, 12, 13, 14, 3, 17, 19, 18, 16
Type: Supervised			
Tutorials	15	0.6	1, 5, 6, 4, 13, 14, 3, 18
Type: Autonomous			
Assignments and preparation of the evaluated learning evidences	29	1.16	1, 8, 2, 7, 5, 9, 10, 11, 15, 6, 4, 12, 13, 14, 3, 17, 19, 18, 16
Studying	27	1.08	8, 2, 7, 5, 10, 11, 15, 12, 13, 14, 17, 19, 18, 16

Assessment

The competences of the TIR Module will be evaluated by means of a bibliographic research report and the oral presentation and defence of the report (with a balanced participation of all the team members). Each of the evidences contributes 50% to 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 of the ECM Module will be evaluated based on the learning evidences for two medical cases. For each of them, two learning objectives (preliminary and final) reports will be evaluated, as well as the oral presentation and defence of the learning evidences. For case 1, the presentation of the different parts 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. For each of the two cases the mark will be calculated from the two written reports (50%) and the oral presentation of the learning results (50%). 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 final mark.

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 basedon 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 Dean of the School of Medicine and the Degree Coordinator.

Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Evaluation of five written reports (TIR, ECM Case 1 and Case 2)	50%	1	0.04	1, 8, 2, 7, 5, 9, 10, 11, 15, 6, 4, 12, 13, 14, 3, 17, 19, 18, 16
Three oral presentations and defence of the learning evidences (TIR, ECM Case 1 and Case 2)	50%	2.5	0.1	1, 8, 2, 7, 5, 9, 10, 11, 15, 6, 4, 12, 13, 14, 3, 17, 19, 18, 16

Bibliography

TIR Module

- Medicina Clínica. Manual de estilo. Publicaciones biomédicas. Barcelona: Doyma; 1993.
- Day RA, Gastel B. Cómo escribir y publicar trabajos científicos. 4ª ed. Washington: Organización Panamericana de la Salud/OMS; 2008.
- Argimon JM, Jiménez J, Martín Zurro A, Vilardell M. Publicación Científica Biomédica: cómo escribir y publicar un artículo de investigación. Barcelona: Elsevier; 2010.

ECM Module

- Specific bibliography will be provided for each case study.
- Basic bibliography as recommended in the different first year courses of the Degree in Medicine.

Software

None.