

**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: Yes  
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.

From the above analysis, this course defines as its main objective to offer the student a first experience in integrated learning in Medicine, which requires from him/her collaborative team work to manage and interrelate knowledge and competences from the first-year courses in the Degree in Medicine.

In addition, the course has the objective to contribute to the following fundamental horizontal and vertical transversal competences:

- Evidence-based discussion.
- Analysis and interpretation of data.
- Ability to formulate appropriate questions.
- Application of biomedical principles to the understanding of diseases.
- Properly relate causes and effects combining the previous learnings from the first-year courses of the Degree in Medicine.

The course is structured in two modules, which are evaluated independently, and which have the following specific objectives:

- Research Initiation Workshop (TIR). The specific objective of the TIR module is to introduce the student to the search of scientific and medical documents as well as to the analysis and treatment of data (from databases) and their presentation.
- Study of Free Cases (ECL). The specific objective of the ECL module is the contextualization and application of knowledges and competences acquired during the first year to two medical cases

## 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:

Research Initiation Workshop (TIR Module, 2 ECTS)

- Search of scientific and medical documents using information retrieval systems.
- Data-mining of biomedical resources.
- Bibliographic treatment of data by means of bibliography management programs.

Study of Free Cases (ECL Module, 2 ECTS)

- Interrelation of the learnings acquired in the first-year courses in the Degree in Medicine.
- Integrated use of those knowledges and competences to analyse and discuss specific problems of medical interest (2 cases).

## Methodology

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

TIR Module (Research Initiation Workshop), 2 ECTS = 50 hours.

- Directed activities (25% = 12.5 hours). Practical classes with ICT support (computer classrooms).
- Supervised activities (15% = 7.5 hours). Problem solving and presentation of works.
- Autonomous activities (55% = 27.5 hours). Preparation of the assignments.
- Evaluation activities (5% = 2.5 hours). Evaluation of the bibliographic research report and its public presentation.

ECL Module (Study of Free Cases), 2 ECTS = 50 hours (1 of which will be used to introduce the course).

- Directed activities (25% = 12 hours). Laboratory practices / seminars with ICT support (computer classrooms).
- Supervised activities (15% = 7.5 hours). Tutorials and supervision of the case discussions.
- Autonomous activities (55% = 27 hours). Preparation of the assignments.
- Evaluation activities (5% = 2.5 hours). Written reports and oral presentations.

## Programme

Presentation of the course and the two modules (1 h).

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 (SRI) and databases in Medicine.
- Day 4 (3.5 h). Conclusions and evaluation of works.
- Evaluated assignments: Bibliographic research written report and presentation file.

ECL Module

- Day 1 (2 h). Presentation of the problem and definition of learning objectives.
- Day 2 (2 h). Face-to-face consultation seminar and definition of learning outcomes.
- Day 3 (2 h). Presentation and discussion of learning outcomes.
- Evaluated assignments: Report of the research tasks carried out during the first two sessions for each case, indicating the tasks carried out by each of the members of the work team. Presentation file.

## 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 (one per team) and the oral presentation and defence of the report (one per team, with a balanced participation of all the team members), each contributing 50% to the mark of this module. The mark will 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. Students who do not participate in the report or in the oral presentation without a documented *force majeure*, will be considered 'non-assessable'. This module contributes 30% to the final mark.

The competences of the ECL Module will be evaluated based on two study cases. For each of them, two reports will be evaluated (one per team, at the end of the two first work sessions), as well as the oral presentation and defence of the learning outcomes (one per team, with a balanced participation of all the team members). For each of the two cases the mark will be calculated from the two written reports (50%) and the oral presentation (50%). The mark will 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. Students who do not participate in one of the reports or in one the oral presentations without a documented *force majeure*, will be considered 'non-assessable'. Each of the two cases in this module contributes 30% to the final mark.

Attendance to, and active involvement in the different sessions will be individually evaluated, contributing 10% to the final mark.

In all, the final mark will be calculated according to 10% attendance and involvement + 30% of the TIR mark + 60% of the ECL mark.

To pass the course the final mark, but also the TIR module mark and the ECL module mark, must independently reach at least 5 points out of 10.

Those students who fail to complete any of the three evaluations (TIR, ECL1, ECL2) will be considered 'non-assessable', exhausting the rights of the enrolment to the course.

Because competence learning in this course is based on collaborative face-to-face work, there are no referral tests.

Misconduct policy. 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 and the case will be reported to the Dean of the School of Medicine.

## Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Attendance and active participation in the sessions	10%	0	0	1, 8, 2, 7, 5, 9, 10, 11, 15, 6, 4, 12, 13, 14, 3, 17, 19, 18, 16
Evaluation of the research reports (TIR, ECL2 and ECL2)	45%	1	0.04	1, 8, 2, 7, 5, 9, 10, 11, 15, 6, 4, 12, 13, 14, 3, 17, 19, 18, 16
Oral presentation and defence of the assignments (TIR, ECL1 and ECL2)	45%	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.

### ECL 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.