

**Medicine and Surgery VI**

Code: 106704  
ECTS Credits: 6

Degree	Type	Year	Semester
2502442 Medicine	OB	5	0

## Contact

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## 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

Ramón Miralles Basseda

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Eduardo Maria Targarona Soler

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Antonio Moral Duarte

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Fco. Javier Guirao Garriga

Nayana Joshi Jubert

Oriol Gasch Blasi

Ricard Comet Monte

David Parés Martínez

Virginia Pomar Solchaga

## Prerequisites

It is recommended to have reached the competences of the following subjects: Biochemistry and Molecular Biology, Cellular Biology, Human Anatomy (I and II), Histology, Human Genetics, Psychological Bases, General Pathology, Fundamentals of Surgery, Microbiology, Radiology and Physical Medicine, Pathological Anatomy, Pharmacology, Immunology, Epidemiology, Obstetrics and Gynaecology.

It would be advisable to review, in order to have sufficient knowledge of the basic sciences, given that these were taken three or four years ago. It is convenient to be familiar with the physiopathology, the semiology, the general propaedeutic, with the purpose of facing the study of these clinical subjects and the indication and interpretation of the tests for complementary diagnostics. The knowledge of pharmacology is necessary in order to be able to make the prescriptions and opportune indications in the different pathologies and to evaluate the iatrogenic or toxic possibilities.

Sufficient knowledge about the psychological basis of health status and disease is recommended as well as an adequate level of knowledge in interpersonal communication and professional behaviour.

The student will preserve confidentiality and professional secrecy of the data that may be accessible during apprenticeships in clinical care services. Also, to maintain an attitude of professional ethics in all their actions.

## **Objectives and Contextualisation**

Infectious diseases:

The teaching of infectious pathology in undergraduate medical studies can be defined as the activities designed to provide the student with a level of competence in this area, suitable for a particular field of study as well as a solid basis for being able to acquire one's own competencies in the future of this specialty.

The infectious pathology has a series of differential characteristics

1. Its contents are transversal, similar to oncology.
2. It is a medical discipline.
3. It is a very extensive discipline.

Not all the potential contents of infectious pathology have to be part of a subject. Sometimes they have to be shared with other specialities. The distribution of contents will depend on the different organization of the hospital services, university departments and of the lines of research.

Good coordination with the Microbiology course is important for an adequate vertical integration between the two subjects.

A very important question is how to approach the teaching plan. In many programs, an etiological criterion is followed. This conception contrasts with the clinical reality, in which the diseases are shown in form of syndromes. The syndromic approach will be fundamental in orienting diagnosis and behaviour in the face of most clinical situations, however, the etiological approach, may be valid in some cases, for particularly relevant microorganisms or groups of microorganisms. Likewise and although during the degree the priority has to be the infections of the community with the highest prevalence, it is also necessary to incorporate into the teaching plan notions of nosocomial infection, international health, and the practical use of antimicrobial agents.

Therefore, the objectives of training are that the student will have to acquire the theoretical knowledge and the practical antimicrobial skills needed to identify the main problems caused by infectious diseases. It will also be required to guide the diagnosis and treatment of the main community infectious diseases and hospital infections. You will also need to acquire the right attitudes in your relation with the patients and thus with the rest of the health providers, especially the nurses.

Geriatrics

The fundamental purpose is to study of the sick elderly person, emphasizing those aspects differentials that appear especially in very advanced stages of life, which includes knowledge of physiological changes that occur in this stage: concept of fragility, main geriatric syndromes, impact of surgery in the elderly and convalescence, more prevalent diseases and health Organization.

## Competences

- Demonstrate basic research skills.
- Demonstrate understanding of the manifestations of the illness in the structure and function of the human body.
- Establish a diagnostic approach and a well thought-out strategy for action, taking account of the results of the anamnesis and the physical examination, and the results of the appropriate complementary tests carried out subsequently.
- Formulate hypotheses and compile and critically assess information for problem-solving, using the scientific method.
- Give the patient and/or accompanying persons the relevant information about the disease process, its bases and consequences, including bad news, in an appropriate way.
- Indicate the basic diagnosis techniques and procedures and analyse and interpret the results so as to better pinpoint the nature of the problems.
- Indicate the most suitable treatment for the most prevalent acute and chronic processes, and for the terminally ill.
- Obtain and prepare a patient record that contains all important information and is structured and patient-centred, taking into account all age and gender groups and cultural, social and ethnic factors.
- Perform a general and a system-by-system physical examination appropriate to the patient's age and sex, in complete and systematic way, and a mental evaluation.
- Recognise and take action in life-threatening situations and others that require an immediate response.
- Recognize one's role in multi-professional teams, assuming leadership where appropriate, both for healthcare provision and for promoting health.

## Learning Outcomes

1. Anticipate and compare information for good decision-making.
2. Assess modifications to clinical parameters in the different age groups.
3. Demonstrate basic research skills.
4. Describe the effects on all organs and systems of diseases of the blood, the cardiovascular system, the digestive system, the respiratory system, the endocrine system, the nervous system, the genitourinary system, infectious pathologies and diseases of the elderly.
5. Describe the main pathological situations of nutrition.
6. Describe the main pathological situations of the musculoskeletal system, the blood, the cardiovascular system, the digestive system, the respiratory system, the endocrine system, the nervous system, the genitourinary system, infectious pathologies and diseases of the elderly.
7. Design the treatment for the main infectious diseases, diseases of the blood, of the elderly, and of the hematopoietic system, the cardiovascular system, the digestive system, the respiratory system, the endocrine system, the nervous system, the renal and genitourinary system, the retroperitoneal system and the musculoskeletal system.
8. Detail the steps and procedures for giving bad news.
9. Explain multidisciplinary intervention during patient care.
10. Explain the mechanisms by which illness affects the structure and function of the human body.
11. Formulate hypotheses and compile and critically assess information for problem-solving, using the scientific method.
12. Give patients the maximum possible information about their health, diagnostic steps, complementary examinations and treatments in an appropriate way.
13. Identify the fundamental principles of palliative medicine.

14. Identify the pathologies of the immune system and the diagnosis and management of these.
15. Identify tumour diseases, and the diagnosis and management of these.
16. Indicate the complementary examinations for diagnosing the main infectious diseases, diseases of the blood, of the elderly, and of the hematopoietic system, the cardiovascular system, the digestive system, the respiratory system, the endocrine system, the nervous system, the renal and genitourinary system, the retroperitoneal system and the musculoskeletal system.
17. Inform with caution and clarity, including measures to prevent the spreading of disease.
18. Know the main agents of infection and their mechanisms of action.
19. Perform a suitable physical examination for the main infectious diseases, diseases of the blood, of the elderly, and of the hematopoietic system, the cardiovascular system, the digestive system, the respiratory system, the endocrine system, the nervous system, the renal and genitourinary system, the retroperitoneal system and the musculoskeletal system.
20. Perform basic and advanced life support manoeuvres.
21. State the most probable diagnosis for the main infectious diseases, diseases of the blood, of the elderly, and of the hematopoietic system, the cardiovascular system, the digestive system, the respiratory system, the endocrine system, the nervous system, the renal and genitourinary system, the retroperitoneal system and the musculoskeletal system.
22. Write a report giving guidance on diagnosing the main infectious diseases, diseases of the blood, of the elderly, and of the hematopoietic system, the cardiovascular system, the digestive system, the respiratory system, the endocrine system, the nervous system, the renal and genitourinary system, the retroperitoneal system and the musculoskeletal system.

## Content

### Infectious diseases

#### Infectious diseases: Medical and Surgical

#### Theory 10 h

1. Febrile Syndrome. Clinical, microbiological and therapeutic approach to a febrile syndrome
2. Practical use of antimicrobials
3. Upper and lower respiratory tract infections
4. Cardiovascular infections
5. Infections of the Central Nervous System
6. Osteoarticular infections
7. Skin and soft tissue infections
8. Infections of the urinary system
9. Sexually transmitted infections
10. Gastrointestinal infections
11. Septic shock
12. Zoonoses
13. Tuberculosis
14. Invasive mycosis
15. Infections by Herpes Group Viruses.
16. HIV infections
17. Infections in non-HIV immunocompromised patients.
18. Nosocomial infections
19. International health

#### Seminars 9h

1. Infections of the respiratory tract
2. Cardiovascular infections
3. Infections of the central nervous system

4. Urinary infections
5. Gastrointestinal infections
6. HIV infections
7. International health
8. Nosocomial infection
9. Bone, joint and soft tissue infections

Practice of advanced clinical simulation (PSCA) 2h

Surgical site infection  
Fever in hospitalised patients

Geriatrics: Medical and Surgery

Theory 23 h

1. Epidemiology of aging. Theories of aging
2. Physiological changes in aging
3. Presentation of diseases in the elderly
4. Frailty, disability and multimorbidity
5. Comprehensive Geriatric Evaluation
6. Nutrition in geriatrics.
7. Geriatric Syndromes I
8. Geriatric Syndromes II
9. Geriatric Syndromes III
10. Drugs in geriatrics
11. Dementias
12. Senile osteoporosis
13. Importance of geriatric prevention
14. Vascular diseases. Clinical atherosclerosis
15. Infections in the elderly
16. Other medical prevalent processes in geriatrics I
17. Other medical prevalent processes in geriatrics II
18. Ethical aspects of medical care in the elderly. Surgical treatment in the elderly
19. Sensory deficits in the elderly
20. Surgical aspects of the elderly patient I
21. Surgical aspects of the elderly patient II
22. Surgical aspects of the elderly patient III
23. Organization of geriatric care

Specialized seminars 9 h

1. Comprehensive geriatric evaluation (3h)
2. Decision making in advanced disease (2 h)
3. Clinical research in geriatrics (2 h)
4. Approach to the older patient with surgical pathology (2h)

Advanced clinical simulation practices (SCAP) 1h

Management of complex situations in Geriatrics

## Methodology

This Guide describes the framework, contents, methodology and general rules of the subject, in accordance with the current curriculum. The final organization of the course with respect to the number and size of groups, calendar distribution and dates of examinations, specific criteria for evaluation and review of examinations will be carried out in each of the Teaching Hospital Units (HTU), which will explain to the students through their web pages and the first day of class of each subject, through the teachers responsible for the subject in the HTU.

In the current exceptional circumstances, at the discretion of the teachers and also depending on the resources available and the public health situation, some of the theoretical classes, practical and seminars organized by the Teaching Units may be taught either in person or virtually.

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.

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## Activities

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Practice of advanced clinical simulation (PSCA)	3	0.12	1, 8, 17, 19, 9, 11, 13, 16, 12, 22, 2
Specialized seminars (SEM)	18	0.72	1, 18, 3, 4, 6, 5, 8, 7, 17, 19, 9, 21, 11, 13, 15, 14, 16, 12, 20, 22, 2
Theory lecture (TE)	45	1.8	1, 18, 4, 6, 5, 8, 7, 17, 19, 10, 9, 21, 11, 13, 15, 14, 16, 12, 22, 2
Type: Autonomous			
Self-study and reading of articles/reports of interest	75	3	18, 4, 6, 5, 8, 7, 10, 21, 11, 13, 15, 14, 16, 12, 22, 2

## Assessment

This subject does not provide the single assessment system.

The evaluation system is based on a theoretical part (70% of the final grade) and a practical part (30% of the final grade).

For the theoretical part (70%):

Two partial theory exams will be scheduled, which will be eliminatory when the grade obtained in each of them is greater than 5.

For the practical part (30%)

The evaluation of the practical part will be specified in the program of each HTU according to its particularities and will be based on the evaluation of clinical case seminars and the Practices of advanced clinical simulation (PSCA). According to the particularities of each Teaching Unit and subject, the practices/seminars may be evaluated on an ongoing basis and will be specify in the programme of each HTU.

The student, who has not passed the partials and/or has not passed the practical part, may attend the final recovery test containing a theoretical part and a practical part.

Depending on the criteria of responsible professors and the available resources in each teaching unit, part of the contents of the theory lectures or practical seminars can be delivered and evaluated in the simulation rooms with the corresponding methodology.

### Final Qualification

The final grade is the weighted average of theoretical knowledge (70%) and practical assessment (30%). The weighting of each of the partials in the final grade will be proportional to the subject content and may not exceed 50%.

It will not be possible to make the average between the theoretical evaluation and the practical evaluation, if a minimum score of 5/10 is not obtained for both parts.

Students who have not passed each subject by means of partial examinations and who on the day of the final exam have not submitted all required parts will be qualified as "NOT ASSESSABLE".

## Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Continuous assessment: Seminars and/or Practice of advanced clinical simulation (PSCA)	30%	3	0.12	1, 18, 3, 4, 6, 5, 8, 7, 17, 19, 10, 9, 21, 11, 13, 15, 14, 16, 12, 20, 22, 2
Theory: Written evaluations through objective test.	70%	6	0.24	1, 18, 3, 4, 6, 5, 8, 7, 17, 19, 10, 9, 21, 11, 13, 15, 14, 16, 12, 22, 2

## Bibliography

Basic

Farreras Rozman. Medicina Interna

19ª edición. (2020). Versió electrònica:

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#### Specific

The bibliography of each subject and topic can be consulted on the specific programs attached to the Virtual Campus of the subject

Robert L. Kane, Joseph G. Ouslander, Barbara Resnick, Michael L. Malone. Principios de geriatría clínica, 8e (2018). Versió electrònica:

[https://bibcercador.uab.cat/view/action/uresolver.do?operation=resolveService&package\\_service\\_id=471389985/](https://bibcercador.uab.cat/view/action/uresolver.do?operation=resolveService&package_service_id=471389985/)

Hazzard's geriatric medicine and gerontology / editors, Jeffrey B. Halter, Joseph G. Ouslander, Stephanie Studenski, Kevin P. High, Sanjay Asthana, Mark A. Supiano, Christine Ritchie ; editor emeritus and senior advisor, William R. Hazzard ; senior editorial assistant, Nancy F. Woolard, 7e (2017). Disponible a Medicina - UD Vall d'Hebrón

#### Internet resources

Pubmed. <http://www.ncbi.nlm.nih.gov/sites/entrez?db=pubmed>

Pubget: <http://pubget.com/>

Google Scholar: <http://scholar.google.es/>

Scielo: <http://www.scielo.cl/>

Sociedad Española de Geriatría y Gerontología: <https://www.segg.es/> En apartado publicacions buscador por temes y además acceso en PDF al "Libro del Residente en Geriatría", 2011)

Societat Catalana de Geriatria: <http://scgig.cat/> (Geribloc i accés per temes al "Tratado de Geriatría para residentes", 2006)



## **Software**

No specific programme is used for teaching