



Information about the subject

Degree: Bachelor of Science Degree in Medicine

Faculty: Faculty of Medicine and Health Sciences

Code: 340311 **Name:** Infectious Diseases

Credits: 3,00 **ECTS Year:** 3 **Semester:** 2

Module: Human Clinical Training

Subject Matter: Human Pathology **Type:** Compulsory

Field of knowledge: Health Science

Department: Medical Specialities

Type of learning: Classroom-based learning

Languages in which it is taught: Spanish

Lecturer/-s:

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Module organization

Human Clinical Training

Subject Matter	ECTS	Subject	ECTS	Year/semester
Human pathology basis	6,00	General Pathology I	3,00	3/1
		General Pathology II: Analysis by Problems	3,00	3/2
Psychology	6,00	Medical Psychology and Psychopathology	6,00	3/2
Human Pathology	102,00	Clinical Allergology and Immunology	3,00	3/2
		Dermatology	6,00	5/1
		Endocrinology and Nutrition	6,00	5/2
		Haematology	3,00	3/2
		Infectious Diseases	3,00	3/2
		Medical Oncology and Radiotherapy	3,00	5/2
		Medicine and Surgery of the Cardiocirculatory System	9,00	4/2
		Medicine and Surgery of the Digestive System	6,00	4/1
		Medicine and Surgery of the Musculoskeletal System	9,00	4/2
		Medicine and Surgery of the Nephro-Urological System	6,00	5/1



Human Pathology	Medicine and Surgery of the Nervous System	9,00	5/2
	Medicine and Surgery of the Respiratory System	6,00	3/2
	Obstetrics and Gynaecology	9,00	4/2
	Ophthalmology	3,00	3/2
	Otorhinolaryngology	3,00	4/2
	Paediatrics	9,00	5/2
	Palliative Medicine	3,00	6/1
	Psychiatry	3,00	5/1
	Rheumatology	3,00	4/2

Recommended knowledge



During medicine studies, basic competences should be acquired in different areas of knowledge, one of them is infectious pathology. Training in infectious diseases is essential for general medical practice and for academic or professional specialization in many areas of medicine, both medical and surgical. The large amount of knowledge that is continually generated on infectious diseases requires a well-structured and framed learning program in an environment dominated by globalization.

The infection remains one of the most frequent and important health problems in the world and is widely accepted that the body of knowledge of infectious diseases as academic discipline is extensive and changing

In the White Book of the Medicine Title it is recommended that the student know

KNOW

Recognize, diagnose and guide its management

1. Infectious disease2. Acute febrile syndrome3. Fever of unknown origin4. Fever with cutaneous eruption5. Septic shock6. Infections of more significance in each organ or apparatus7. INFECTIONS IN THE PATIENT IMMUNODEPRESSED8. infections in the hospitalized patient9. Traveler infections10. Sexually transmitted infections11. Infection after animal bite12. Systemic or multiorganic infections• HIV infection• Tuberculosis• Brucellosis• Tetanus• Salmonellosis• rickettsiosis• Legionella• Paludism• amoebiasis• Citomegalovirus• Most frequent parasitosis

KNOW:

1. Anti -infectious prophylaxis2. Protozoa infections• Leishmaniasis• Toxoplasmosis3. Viral infections• Respiratory flu and viruses• Parvovirus• Poxvirus• Rage• Ebola• Herpes4. Bacterial infections and others• Lyme's disease• Peste• Leptospirosis• Lepra• Actinomycosis• Bartonellosis• Gaseous gangrene

Know how to do

1. Clinical history oriented to infectious pathology2. Recognize by physical examination the existence of abnormalities in body temperature, adenopathies, skin, etc.3. Indicate and interpret complementary studies• Biological sampling crops• Serology of the most frequent infections

The infectious diseases of the Catholic University tries to cover all these competences and tries to promote that students have clear concepts of the vulnerability of the guest to infection as well as the characteristics and virulence of the most frequent microorganisms. The student must be able to perform complex differential diagnoses and have competence on diagnostic techniques and on the beginning or not of antimicrobials.



Learning outcomes

At the end of the course, the student must be able to prove that he/she has acquired the following learning outcomes:

- R1 Understand the importance of anamnesis data and physical examination for diagnostic guidance.
- R2 Be able to establish a differential diagnosis of heart symptoms and signs.
- R3 Correctly guide medical and surgical treatment of cardiovascular diseases.
- R4 Witness and collaborate in the elaboration of the patient's medical history with the data obtained from anamnesis, complementary physical examination
- R5 Know the interrelationships with other medical and surgical specialties.
- R6 Identify chest x-ray and chest CT abnormalities.
- R7 Obtain and develop a medical history that contains all the information relevant from a surgical point of view without forgetting the holistic concept of the disease.
- R8 Having the ability to develop an initial diagnostic judgment and establish a reasoned diagnostic strategy, based on the axiom "primun non nocere"
- R9 Recognize and treat life-threatening situations immediately, and those that require immediate attention.
- R10 Being able to understand the differences between the child and the adult and become familiar with the child's management in consultation
- R11 Apply the fundamentals of Infectious Pathology to guide syndrmal diagnosis.
- R12 Know how to discuss the differential diagnosis of major infectious syndromes that affect men.
- R13 Knowing how to assess the severity of the various infectious tables
- R14 Establish analytical and imaging studies should be done in different clinical situations with suspected infection.
- R15 Properly interpret the results of diagnostic tests.



- R16 Be familiar with the main prescriptions of antimicrobial treatment.
- R17 Know how to apply recommendations to patients, family members and healthcare to avoid the acquisition and transition of the most common infections.
- R18 Make a medical history oriented to infectious pathology
- R19 Recognize, through physical examination, suggestive signs of infectious pathology
- R20 Detecting and interpreting serious elements in the patient with suspected infection
- R21 Recognize major infectious emergencies
- R22 Know how to use and interpret physical scan results and laboratory parameters.



Competencies

Depending on the learning outcomes, the competencies to which the subject contributes are (please score from 1 to 4, being 4 the highest score):

BASIC		Weighting			
		1	2	3	4
CB1	Students have demonstrated to possess and understand knowledge in a study area that starts from the base of the general secondary education, and is usually found at a level that, while supported by advanced textbooks, also includes some aspects that involve knowledge from the forefront of their field of study				X
CB2	Students know how to apply their knowledge to their job or vocation in a professional way and possess the competences that are usually demonstrated through the elaboration and defense of arguments and the resolution of problems within their area of study				X
CB3	Students have the ability to collect and interpret relevant data (usually within their area of study) to make judgments that include a reflection on relevant social, scientific or ethical topics				X
CB4	Students can pass on information, ideas, problems and solutions to both a specialized and non-specialized audience				X
CB5	Students have developed the learning skills needed to undertake further studies with a high degree of autonomy				X
GENERAL		Weighting			
		1	2	3	4
CG4	Developing professional practice with respect to patient autonomy, beliefs and culture			X	
CG5	Recognizing the limitations themselves and the need to maintain and update their professional competence, giving special importance to the autonomous learning of new knowledge and techniques and to the motivation for quality				X
CG6	Developing professional practice with respect for other health professionals, acquiring teamwork skills				X



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prognosis and treatment, applying all possible information and clinical safety		X
appropriate therapeutics of the most prevalent diseases, as well as terminally ill patients		X
appropriate preventive measures for each		X
experience in hospital institutions, health institutions, under supervision, as well as patient-centered clinical management and pharmaceuticals and other health system		X
analyze and synthesize relevant information regarding the patient and understand the content		X
interpret and other medical records in an accessible manner		X
communicate clearly, both orally and in writing, with media workers and other professionals		X
personal communication that enables media workers and other professionals to communicate media and other professionals with		X



CG29	Knowing national and international health organizations and the environments and conditions of different health systems				X
CG33	Maintaining and using records with patient information for further analysis, preserving data confidentiality				X
CG36	Being able to formulate hypotheses, critically collect and evaluate information for problem solving, following the scientific method				X

SPECIFIC		Weighting			
		1	2	3	4
CE33	Recognizing, diagnosing and guiding the management of the main skin pathologies		X		
CE36	Recognizing, diagnosing and guiding the management of the main ophthalmological pathologies		X		
CE38	Recognizing, diagnosing and guiding the management of the main ear, nose and throat pathologies			X	
CE39	Recognizing, diagnosing and guiding the management of the main cardiocirculatory pathologies			X	
CE40	Recognizing, diagnosing and guiding the management of the main diseases of the digestive system		X		
CE42	Recognizing, diagnosing and guiding the management of the main pathologies of the locomotor system			X	
CE43	Recognizing, diagnosing and guiding the management of the main pathologies of the respiratory system				X
CE44	Recognizing, diagnosing and guiding the management of the main pathologies of the endocrine system. Nutrition pathology		X		
CE45	Recognizing, diagnosing and guiding the management of the main pathologies of the central and peripheral nervous system				X
CE46	Knowing the main infectious agents and their mechanisms of action				X
CE47	Recognizing, diagnosing and guiding the management of the main infectious diseases in the different rgans and systems				X
CE48	Recognizing, diagnosing and guiding the management of the main immune systems' pathologies.				X
CE49	Knowing the morphological and functional characteristics of the newborn, child and adolescent. Growth. Premature newborn			X	



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complete anamnesis, patient-centered and ologies, interpreting its meaning				X
ical examination by devices and systems, logical examination, interpreting its				X
the changes of clinical parameters in the exploration and monitoring			X	
n, focused on the needs of the patient and onment, consistent with the symptoms and				X
and advanced life support		X		
Weighting				
	1	2	3	4
capacity				X
tion capacity				X
ication in mother language		X		

complete anamnesis, patient-centered and ologies, interpreting its meaning				X
ical examination by devices and systems, logical examination, interpreting its				X
the changes of clinical parameters in the exploration and monitoring			X	
n, focused on the needs of the patient and onment, consistent with the symptoms and				X
and advanced life support		X		
Weighting				
	1	2	3	4
capacity				X
tion capacity				X
ication in mother language		X		



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	1	2	3	4
Personal action and know your own skills and				X
and maintain relationships with other				X
ons			X	
ant information from personal interviews			X	



Assessment system for the acquisition of competencies and grading system

Assessed learning outcomes	Granted percentage	Assessment method
	25,00%	Open questions
	70,00%	Tests
	5,00%	Participation in class

Observations

It will be obtained if the student has attended 80% of the classes.

MENTION OF DISTINCTION:

In accordance with the regulations governing the assessment and grading of subjects in force at UCV, the distinction of "Matrícula de Honor" (Honours with Distinction) may be awarded to students who have achieved a grade of 9.0 or higher. The number of "Matrículas de Honor" (Honours with Distinction) may not exceed five percent of the students enrolled in the group for the corresponding academic year, unless the number of enrolled students is fewer than 20, in which case a single "Matrícula de Honor" (Honours with Distinction) may be awarded. Exceptionally, these distinctions may be assigned globally across different groups of the same subject. Nevertheless, the total number of distinctions awarded will be the same as if they were assigned by group, but they may be distributed among all students based on a common criterion, regardless of the group to which they belong. The criteria for awarding "Matrícula de Honor" (Honours with Distinction) will be determined according to the guidelines stipulated by the professor responsible for the course, as detailed in the "Observations" section of the evaluation system in the course guide.

Learning activities

The following methodologies will be used so that the students can achieve the learning outcomes of the subject:

- | | |
|----|---|
| M1 | Masterclass |
| M2 | Problems resolution and practical cases |



M3	Virtual simulations
M4	Content presentations by teacher
M5	Knowledges and skills explanation
M7	Oral presentation by student
M8	Group activities supervised by professor
M9	Knowledge acquirance through student interaction and activity
M11	Personalised attention by professor
M12	Tests to understand the level of knowledge acquirance and skills
M13	Written work
M14	Online activity on e-learning
M15	Personal study
M16	Information research
M17	Discussion and solving issues in group
M18	Work in team
M19	Group work for searching, discussion and information research
M21	Supervision of clinical histories
M22	Clinical practices



IN-CLASS LEARNING ACTIVITIES

	LEARNING OUTCOMES	HOURS	ECTS
Theory class M1	R1, R2, R3, R4, R5, R7, R8, R9, R10, R11, R12, R13, R14, R15, R16, R17, R18, R19, R20, R21, R22	25,00	1,00
Seminar and group practices M2	R1, R2, R4, R6, R8, R9, R10, R13, R15, R16, R18	6,00	0,24
Tutoring M4	R3, R4	3,50	0,14
Evaluation M2	R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11, R12, R13, R14, R15, R16, R17, R18, R19, R20, R21, R22	3,00	0,12
TOTAL		37,50	1,50

LEARNING ACTIVITIES OF AUTONOMOUS WORK

	LEARNING OUTCOMES	HOURS	ECTS
No attendance M15, M16	R1, R2, R3, R4, R5, R8, R9, R10, R11, R12, R13, R14, R15, R16, R17, R19, R20, R21, R22	37,50	1,50
TOTAL		37,50	1,50



Description of the contents

Description of the necessary contents to acquire the learning outcomes.

Theoretical contents:

Content block	Contents
INTRODUCTION	Antibiotics: Types and classification. Empiric antimicrobial therapy Health Care Infection. Multiresistence (ESKAPE microorganisms)
FEVER, SEPSIS, SEPTIC SHOCK	Management of the patient with severe infection Host vulnerability Infection virulence
Respiratory tract infection	a) Upper respiratory tract infections c) Flu c) Pneumonia d) Complicated Pneumonia: pulmonary abscess and empyema
CARDIAC AND VASCULAR PATHOLOGY.	a) Endocarditis b) Prosthetic valve infections. Infections in pacemaker and other special cardiac devices. C) Myocarditis y pericarditis
Skin and soft tissue infection (cellulitis)	a) Diabetic foot infection b) Patient with fever and exantema c) Acute infections in intravenous drug users d) Bites
Neurological Infections	MENINGITIS ENCEFALITIS
OSTEOARTICULAR INFECTIONS	Arthritis Osteomyelitis. Prosthetic joint infection



GASTROINTESTINAL INFECTION

Gastroenteritis
Peritonitis

URINARY TRACT INFECTION AND Sexually transmitted diseases (STDs)

URINARY TRACT INFECTION

- a) Cistitis and pyelonephritis
- b) **Prostatitis, epididymitis and orchitis.**
- c) Gramnegative bacteria and resistance.

Sexually transmitted diseases

- a) Pelvic inflammatory diseases
- b) Urethritis
- c) Mucosal lesions

Innate and acquired immunodeficiency

Innate and acquired immunodeficiency
History and epidemiology of HIV
Mechanisms of HIV infection. Natural history of the infection.
Antiretroviral treatment. Side effects.
Non AIDS events.
Prevention of the primoinfection

HIV ALGORITHM INFECTION

Oral and esophagic candidiasis
Pneumonia in HIV
Gastrointestinal HIV
Nervous system infection in HIV
Skin infection in HIV

INMUNOCOMPROMISED HOST.

Risk of infections associated with biological treatment
Infection in solid transplant host.
Infection in **hematopoietic cell transplantation.**

Fever in the Returned Traveler

- a) Preventive measures
- b) Profilaxis and vaccination
- c) Emergent diseases
- d) Zoonosis

MASTERCLASS

TUBERCULOSIS
MALARIA

COVID-19

COVID-19



Temporary organization of learning:

Block of content	Number of sessions	Hours
INTRODUCTION	2,50	5,00
FEVER, SEPSIS, SEPTIC SHOCK	2,00	4,00
Respiratory tract infection	1,50	3,00
CARDIAC AND VASCULAR PATHOLOGY.	1,50	3,00
Skin and soft tissue infection (cellulitis)	1,00	2,00
Neurological Infections	1,00	2,00
OSTEOARTICULAR INFECTIONS	1,00	2,00
GASTROINTESTINAL INFECTION	1,00	2,00
URINARY TRACT INFECTION AND Sexually transmitted diseases (STDs)	1,00	2,00
Innate and acquired immunodeficiency	1,00	2,00
HIV ALGORITHM INFECTION	1,00	2,00
INMUNOCOMPROMISED HOST.	1,00	2,00
Fever in the Returned Traveler	1,00	2,00
MASTERCLASS	1,25	2,50



COVID-19

1,00

2,00

References

Mandell, Douglas, and Bennett's Principles and Practice of Infectious Diseases

Harrison's Principles of Internal Medicine, Twenty-First Edition (Vol.1 & Vol.2) 21st Edition

TRATADO SEIMC DE ENFERMEDADES INFECCIOSAS Y MICROBIOLOGIA CLINICA (2ª ED.).
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