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: -

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 desease• Peste• Leptospirosis• Lepra• Actinomycosis• Bartonelosis• 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 noncere"
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

CG9	Understanding and recognizing the effects, mechanisms and manifestations of the disease on the structure and function of the human body			x
CG11	Understanding and recognizing the effects of growth, development and aging on the individual and their social environment			x
CG12	Understanding the basis of action, indications and efficacy of therapeutic interventions, based on available scientific evidence			x
CG13	Getting and writing a medical history containing all relevant information			x
CG14	Perform a physical exam and mental assessment		x	
CG15	Having the ability to make an initial diagnostic judgment and establish a reasoned diagnostic strategy			x
CG16	Recognizing and treating life-threatening situations and those that require immediate attention			x
CG17	Establishing all diagnosis, prognosis and treatment, applying principles based on the best possible information and clinical safety			x
CG18	Indicating the most appropriate therapeutics of the most prevalent and chronic acute processes, as well as terminally ill patients			x
CG19	Raising and proposing appropriate preventive measures for each clinical situation			x
CG20	Acquiring enough clinical experience in hospital institutions, health centers or other health institutions, under supervision, as well as basic knowledge of patient-centered clinical management and appropriate use of tests, medicines and other health system resources			x
CG21	Listening to carefully, obtain and synthesize relevant information about the problems afflicting the patient and understand the content of this information			x
CG22	Writing medical histories and other medical records in an understandable way to outsiders			x
CG23	Communicating effectively and clearly, both orally and in writing, with patients, family members, media workers and other professionals			x
CG24	Establishing good interpersonal communication that enables patients, family members, media workers and other professionals to address patients, families, media and other professionals with efficiency and empathy			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. Nutritition 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 inmune systems' pathologies.				x
CE49	Knowing the morphological and functional characteristics of the newborn, child and adolescent. Growth. Premature newborn			x	

CE50	Recognizing, diagnosing and guiding the management of the main pediatric pathologies. Child nutrition. Diagnosis and genetic counseling. Cognitive, emotional and psychosocial development in childhood and adolescence				x
CE51	Knowing the biological, psychological and social foundations of personality and behavior				x
CE52	Recognizing, diagnosing and guiding the management of psychiatric disorders. Psychotherapy			x	
CE53	Recognizing, diagnosing and guiding the management of major poisonings. Palliative medicine				x
CE54	Recognizing the characteristics of the pathology prevalent in the elderly. Family and community medicine: living environment of the sick person, promotion of health at the family and community level			x	
CE55	Recognizing, diagnosing and guiding the management of life-threatening situations				x
CE56	Knowing how to make a complete anamnesis, patient-centered and oriented to the various pathologies, interpreting its meaning			x	
CE57	Knowing how to do a physical examination by devices and systems, as well as a psychopathological examination, interpreting its meaning				x
CE58	Knowing how to evaluate the changes of clinical parameters in the different ages. Pregnancy exploration and monitoring			x	
CE59	Establishing an action plan, focused on the needs of the patient and the family and social environment, consistent with the symptoms and signs of the patient				x
CE60	Knowing how to do basic and advanced life support		x		

TRANSVERSAL		Weighting			
		1	2	3	4
CT1	Analytical and synthesis capacity				x
CT2	Planification and organization capacity				x
CT3	Oral and written communication in mother language		x		

CT7	Solving problems			x
CT8	Making decisions			x
CT9	Team work		x	
CT10	Interdisciplinary team work			x
CT12	Interpersonal relationship skills			x
CT14	Critical reasoning			x
CT15	Ethical commitment			x
CT16	Individual learning			x
CT17	New situations' adaptation			x
CT26	Knowing how to value personal action and know your own skills and limitations			x
CT32	Being able to establish and maintain relationships with other professionals and institutions		x	
CT33	Knowing how to get relevant 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

Se obtendrá si al menos se ha asistido al 80% de la clases.

MENTION OF DISTINCTION:
According to Article 22 of the Regulations governing the Evaluation and Qualification of UCV Courses, the mention of "Distinction of Honor" may be awarded by the professor responsible for the course to students who have obtained, at least, the qualification of 9 over 10 (“Sobresaliente”). The number of "Distinction of Honor" mentions that may be awarded may not exceed five percent of the number of students included in the same official record, unless this number is lower than 20, in which case only one "Distinction of Honor" may be awarded.

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) Prosthesic 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 resistence. Sexually transmitted diseses a) Pelvic inflammatory diseses b) Urethritis c) Mucosal lessions
Innate and acquired immunodeficiency	Innate and acquired immunodeficiency History and epidemilology 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

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