UNIVERSIDAD AUTÓNOMADENUEVO LEÓN
SCHOOL OF MEDICINE
Ba CLINICAL CHEMISTRY

SYNTHETIC PROGRAM.

1.Identification data:	
•Institution	Universidad Autónoma de Nuevo León
•College	School of Medicine
•Education program	Clinical Chemistry
•Learning unit	Medical bacteriology
•Total hours of classroom, theory and practice	120
•Frequency in classroom per week	6 hours
•Total extra hours (Outside classroom)	30
•Modality	Face-to-face instruction
•Academic period	Sixth semester
•Type of learnig unit	Core
•Curricular area	ACFP-F
•UANL Credits	5
•Date of elaboration	18/01/2017
•Date of actualization	
•Responsible (s) for the design and actualization	Dr. C. José Prisco Palma Nicolás

2.Purpose(s):

To contribute to achieving the graduate profile in the field of medical bacteriology, by developing the necessary skills for the study of the causal agents of bacterial infectious diseases, through the design, validation, selection and/or execution of laboratory tests, under strict quality control, and using a methodology that favors self-learning focused on problem solving.

In relation to general competencies, students will be able to use traditional and cutting-edge research methods and techniques to develop their academic work in the laboratory, with the aim of finding the necessary answers in the exercise of their profession, by making decisions individually or jointly with their colleagues. The knowledge generated will allow them to intervene critically and with human commitment in the face of contemporary challenges to consolidate the general well-being of society and contribute to sustainable development.

At the LU Medical bacteriology course, students acquire specific skills to select and perform the laboratory tests necessary to identify bacteria in a clinical sample. They know and handle biological agents responsibly in accordance with national and international regulations. They also interpret the results of microbiological tests that allow them to make timely decisions in the diagnosis of infectious diseases.

The LU of Medical bacteriology integrates the skills acquired in LUs such as: Basic microbiology, where the classification of the different types of biological agents, their general properties, as well as the physical-chemical methods for their eradication and control are studied; the LU of Biochemistry applies various tests that allow the identification of bacteria based on characteristics of their metabolism and/or energy requirements; the LU of Immunology applies knowledge to select microbiological diagnostic tests based on the patient's immune response against infectious agents.

It provides fundamental bases for the development of Social Service, Professional Practices and for the General Graduation Exam for the Bachelor's Degree in Clinical Chemistry.

3. Competence of the graduate profile

- **General skills contributing to this learning unit**

Instrumental skills:

3. Manage information and communication technologies as a tool for accessing information and its transformation into knowledge, as well as for learning and collaborative work with cutting-edge techniques that allow for constructive participation in society.

Personal and social interaction skills:

11. To practice the values promoted by the UANL: truth, equity, honesty, freedom, solidarity, respect for life and others, peace, respect for nature, integrity, ethical behavior and justice, in their personal and professional environment to contribute to building a sustainable society.

Integrative skills:

13. Assume leadership committed to social and professional needs to promote relevant social change.

- **Specific skills of the graduate profile that contributes to the learning unit**

2. To execute physical, chemical and/or biological procedures in the collection, handling, storage and analysis of samples to contribute to a reliable clinical, toxicological, chemical, food, forensic and environmental diagnosis.

3. To handle chemical and biological materials following official Mexican and/or international standards that guarantee their correct use and disposal to preserve health and the environment.

6. Interpret the results of analysis based on established criteria that allow for timely and pertinent decision-making in clinical, toxicological, chemical, food, forensic and environmental diagnosis.

4. Factors to consider for evaluating the learning unit

- Written evaluations.
- Weighted activities.
- Oral presentations.
- Laboratory reports.
- Course integrative project/product.

5. Course integrative project/product:

Resolution of a microbiological diagnosis case. Exercise in which the student selects, executes, interprets and discusses the results of the most appropriate microbiological tests available for the isolation and identification of the causal agent of a clinical picture provided.

6. Sources of support and consultation (bibliography, hemerography, electronic sources):

Fac. de Medicina-Universidad Autónoma de Nuevo León. (n.d.). Plataforma. From Plataforma: http://www.medicina.uanl.mx/plataforma/

José P. Palma Nicolás, G. G. (2018). Manual de Prácticas del Curso de Bacteriología Médica (Segunda ed.). Monterrey, N.L., México.

Koneman, E. W. (2008). Koneman. Diagnóstico Microbiólogico (Sexta ed.). Montevideo, Uruguay: Editorial Médica Panamericana.

Murray P.R., R. K. (2017). Microbiología Médica (Octava ed.). Barcelona, España: Elsevier.

Anuarios de morbilidad Nacional. Dirección General de Epidemiología. Secretaría de Salud, Gobierno de México. https://www.gob.mx/salud/acciones-y-programas/anuarios-de-morbilidad-1984-2019

Boletín Epidemiológico. Sistema Nacional de Vigilancia Epidemiológica. Secretaría de Salud, Gobierno de México. https://www.gob.mx/salud/documentos/boletinepidemiologico-sistema-nacional-de-vigilancia-epidemiologica-sistema-unico-de-informacion-231750