



**UNIVERSIDAD AUTÓNOMA DE NUEVO LEÓN**  
**SCHOOL OF MEDICINE**  
**Ba CLINICAL CHEMISTRY**



**SYNTHETIC PROGRAM.**

<b>1. Identification data:</b>	
• Institution	Universidad Autónoma de Nuevo León
• College	School of Medicine
• Education program	Clinical Chemistry
• Learning unit	Biostatistics
• Total hours of classroom, theory and practice	40
• Frequency in classroom per week	2 hours
• Total extra hours (Outside classroom)	20
• Modality	Face-to-face instruction
• Academic period	Second semester
• Type of learning unit	Core
• Curricular area	ACFB
• UANL Credits	2
• Date of elaboration	18/09/2017
• Date of actualization	19/01/2022
• Responsible (s) for the design and actualization	M. A. Engineer Angel Enrique Alcorta Garza

## **2.Purpose(s):**

The purpose of the learning unit is to train the student in the use of statistical techniques, which will serve them to solve problems applied in the validation of analytical methods in the biochemical field.

During the learning unit, the student will develop skills in the management of descriptive and inferential statistics, through logical, critical and creative thinking to analyze natural and social phenomena, which will allow them to form pertinent decisions in their field of influenza and social responsibility by generating reports, written evidence in electronic format and solving problems. They will practice the values promoted by the University before their classmates and professors, with truth, honesty and respect for life, when developing their activities, when working in a team with a positive attitude, even in the professional field.

Regarding specific competencies, the student makes use of statistical techniques, which allow him to incorporate new methodologies for the laboratory, guaranteeing reliability of analytical results, applying quality control guidelines.

The learning unit facilitates the solution of statistical problems, applying descriptive and inferential methods; is located in the second semester of the Clinical Chemist curriculum, it is related to most of the learning is of the curriculum, for example, Analytical Chemistry and Instrumental Analysis, applying statistical techniques to perform data analysis around problems in the biochemical field.

## **3. Competence of the graduate profile**

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

### **Instrumental skills:**

3. To manage Digital Information, Communication, Knowledge and Learning Technologies (TICCAD), in academic, personal and professional environments with cutting-edge techniques that allow their constructive and collaborative 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:**

15. To achieve the adaptability required by the uncertain social and professional environments of our time to create better living conditions.

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

4. To validate bioanalytical methods under established performance criteria that allow reliability of the results obtained in chemical-biological samples.

#### **4. Factors to consider for evaluating the learning unit**

- Course integrative project/product

#### **5. Integrative learning Product:**

Proposal to the solution of a case posed, where the various technologies of learned biostatistics are applied. It must be an unpublished product, on a subject related to the biochemical field. The structure must contain: cover, index, theoretical framework, hypothesis, justification of the sample, database, analysis, results, conclusions, sources of support and consultation. (3datos.es., 2021)

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

*Daniel, W. W. (2008). Biostatistics. Mexico: Limusa.*

3datos.es. (2021). Retrieved from 3datos.es, Statistical Analysis: [http://3datos.es/?gclid=EAlalQobChMls\\_Cuw4-17glVE\\_\\_jBx0CWwJDEAMYASAAEgL6ufD\\_BwE](http://3datos.es/?gclid=EAlalQobChMls_Cuw4-17glVE__jBx0CWwJDEAMYASAAEgL6ufD_BwE)

Martínez, M. (2014). Friendly biostatistics. Spain: Elsevier Spain.

MedlinePlus. (2020). MedlinePlus. Retrieved from <https://medlineplus.gov/spanish/healthstatistics.html#:~:text=Las%20estad%C3%ADsticas%20de%20salud%20son,salud%20p%C3%ABblica%20y%20atenenci%C3%B3n%20m%C3%A9dica>.