

MODULE DESCRIPTION (SUMMARY PROGRAM).

1. Module Information Code:	
• Name of the Institution and School	Universidad Autónoma de Nuevo León, <u>Facultad de Medicina</u>
• Name of the Learning Unit	<u>Physiology</u>
• Total classroom hours for theory and/or practice.	136 hours
• <u>Total extra classroom hours</u>	104 hours
• Course Modality	Schooled
• <u>Type of academic period in which the module is offered</u>	3rd Semester
• <u>Type of Learning Unit in the Curriculum</u>	Compulsory
• Curriculum area:	ACFB
• UANL credit points	8
• Date of module creation:	August, 2015
• <u>Date of last amendment:</u>	August, 2015
• Person(s) responsible for the module design and amendments:	Dr. Daniel Alberto Mata Mendoza

2.- Purpose(s).

The learning unit of Physiology is located in the second year of the career, once the morphological sciences have been completed, which constitute the basis for the study of function, the learning object of Physiology; it is related to Biochemistry, regarding the study of the body's cellular function, and constitutes the basis for the subsequent study of Pharmacology, Internal Medicine and Surgery.

It contributes to achieve the profile of graduation in the domains corresponding to the scientific basis of medicine and clinical practice, by developing the necessary skills to make functional diagnosis through the analysis of homeostasis, laying the foundations of treatment; all this in a framework that allows the exercise of attitudes and skills of critical thinking and research; and through the management of the medical patient relationship in virtual cases, the subject matter promotes the acquisition of skills in professional values and ethics; organizational work and communication.

3.- Competences of the graduate profile

a. General competences contributing to this learning unit.

Instrumental skills:

1. Apply autonomous learning strategies in the different levels and fields of knowledge that allow them make appropriate and relevant decisions in the personal, academic and professional fields.
2. Use the logical, formal, mathematical, iconic, verbal and non-verbal languages according to their stage of life, in order to understand, interpret and express ideas, feelings, theories and streams of thinking with an ecumenical focus.
3. Use the information and communication technologies as access tools to information and its transformation in knowledge, as well as for learning and collaborative work with cutting-edge techniques that allow its constructive participation in society.
4. Dominate their native language in oral and written form with correctness, relevancy, opportunity and ethics adapting its message to the situation or context, in order to transmit of ideas and scientific findings.
5. Employ logical, critical, creative and proactive thinking to analyze natural and social phenomena that let them make relevant decisions in its area of influence with social responsibility.
6. Use a second language, English in particular, with clarity and correctness to communicate in common, academic, professional and scientific contexts.
7. Develop inter, multi and transdisciplinary academic and professional proposals according to the best global practices to promote and consolidate the collaborative work.

8. Use methods and techniques of traditional and cutting-edge research for the development of their academic work, the practice of their profession and the generation of knowledge.

Personal and social interaction skills

9. Maintain an attitude of commitment and respect towards the diversity of social and cultural practices that reaffirm the principle of integration in the local, national and international context with the purpose of promoting environments of peaceful coexistence.

10. Intervene in front of the challenges of contemporary society at the local and global level with a critical attitude and human, academic and professional commitment to help consolidate the general wellness and sustainable development.

11. Practice the values promoted by the UANL: truth, equality, honesty, liberty, solidarity, respect for life and anyone's, peace, respect for nature, integrity, ethics behavior and justice, within their personal and professional environment in order to make a sustainable society.

Integrative skills:

12. Make innovative proposals based on the holistic understanding of reality to help overcome the challenges of the interdependent global environment.

13. Take the lead according to social and professional needs to promote relevant social change.

14. Resolve personal and social conflicts in accordance with specific techniques in the academic field and their profession for the proper decision making.

15. Achieve the adaptability required in uncertain professional and social environments of our time to improve living conditions.

b. Specific competences of the graduate profile that contributes to the learning unit

1.- Use the medicine scientific fundamentals considering economical, psychological, social, cultural and environmental factors which contribute to the development and evolution of a disease for decision-making and medical actions.

2.- Solves clinical problems through deductive reasoning, interpretation of findings and definition of their nature with the aim of making decisions and determine action principles of the medical practice to follow in a responsible way, impacting individual and collective health.

3. Manages information and communication technologies as a tool for accessing to information and transform it into knowledge, as well as for learning purposes and collaborative work with cutting-edge techniques which allow an edifying participation in society.

- 4.- Manages properly patients with the most frequent diseases from a biopsychosocial perspective, through the application of knowledge, technical procedures and basic diagnostic, based on clinical guides and attention protocols in order to solve the main health problems from the Primary Health Care level from individuals and the community.
5. Uses logical, critical, creative, and innovative thinking skills to analyze natural and social phenomena which allow him to make appropriate decisions in the field where he can influence with social responsibility.
- 6.- Manages human resources, diagnostic interventions, therapeutic modalities, and options on health care according to national standards, promoting a quality culture in attention and guaranteeing patients' security.
- 7.- Applies the scientific method for the resolution of medical problems with an innovative, analytic and self-critical attitude for preventing, diagnosing and treating diseases.
- 8.- Integrates professional values and ethics into his medical practice, making no difference due to gender, race, political or sexual preference, religious beliefs, activities developed, disabilities or socioeconomic level, promoting social inclusion and contributing to the population's well-being, their life quality and human development.
- 9.- Respects the patient's integrity keeping the patient's medical information as an essential part of their professional secret in order to preserve his rights.
- 10.- Promotes an organizational work culture for the health field, acknowledging the multidisciplinary work, respect for institutional policies and the observance of rules in order to contribute to a comprehensive treatment of patients.
- 11.- Applies effective communication principles, establishing a respectful and sympathetic relationship with the patient, relatives, the community and other health professionals in order to use the information properly.

4.- Summative Evaluation.

- Exam
- Course Integrative Product

5.- Course Integrative Product

Comprehensive written evaluation of a patient, in which he identifies the homeostatic mechanism or mechanisms affected, analyzes the physiopathology and relates it to the signs and symptoms present in the patient's clinical picture, and determines the way in which all the apparatus and systems of the body are affected.

6.- References

Textbooks

Raff, H; Levitzky, M(2014). Fisiología Médica. Un enfoque por sistemas. Editorial Mc-Graw-Hill Interamericana. 1ª Edición.
Fernández Garza NE. (2015) Manual de Laboratorio de Fisiología. Editorial Mc-Graw-Hill Interamericana. 6ª Edición.
Barret, K.E.; Barman, SM; Boitano, S; Brooks, HL. (2010). Fisiología de Ganong. Editorial Mc-Graw-Hill Interamericana. 23ª Edición.
Costanzo, LS. (2014) Fisiología. Editorial Elsevier Saunders. 6ª Edición.

Websites

American Physiological Society, www.the-aps.org
Physiological Society, www.physoc.org
Society for Neurosciences, <https://www.sfn.org>

