

MODULE DESCRIPTION (SUMMARY PROGRAM).

1. Module Information Code:	
• Name of the Institution and School	Universidad Autónoma de Nuevo León, School of Medicine
• Name of the Learning Unit	Embryology
• <u>Total classroom hours for theory and/or practice.</u>	140 hours
• Total extra classroom hours	70 hours
• <u>Course Modality</u>	Schooled
• Type of academic period in which the module is offered	1st semester
• Type of Learning Unit in the Curriculum	Compulsory
• <u>Curriculum area:</u>	ACFB Basic
• UANL credit points	7
• <u>Date of module creation:</u>	February 17, 2014
• Date of last amendment:	August 6, 2020
• Person(s) responsible for the module design and amendments:	Dr. med. Norberto López Serna

2. Purpose(s)

This learning unit provides scientific basis and the development of the competences needed to integrate knowledge regarding to Human Embryology. In this way, the graduate student will be able to explain the etiology and morphological mechanisms that the most common congenital abnormalities have, using scientific vocabulary properly to communicate with the rest of the health center team. All these will be done practicing professional and ethical values. As part of the curriculum map, Human Embryology is a module which is related to: 1) Human Anatomy, because Human Embryology provides the students a comprehensive vision on how the human body is formed before birth, which is essential to understand an adult's anatomy; also, with 2) Cell and Tissue Biology because it provides the knowledge needed to understand the microstructures and cell mechanisms which give support to the morphological development from the conception's product; with 3) Biochemistry, too, because students require from this knowledge to understand the molecular mechanisms which originate life from the conception's product and control the subsequent development; with 4) Molecular Biology, which provides knowledge regarding the genetic mechanisms which give place to morphological events during the conception's product development. Likewise, Human Embryology gives sense to the knowledge acquired at Molecular Biology.

The learning unit is related to the general skills because they promote autonomous learning, the use of formal language, information technologies, and collaborative learning and work. In an important way, the learning unit establishes in the student that one of the ethical values that all graduate general practitioners from UANL must have is having respect for the conception's product life.

Regarding to the specific skills, the learning unit provides basic knowledge so that students, through the use of scientific thinking and a holistic approach, can identify the normal development of the conception's product, as well as the clinical signs of congenital malformations and their causes (health-disease relationship, interaction between man and physical environment).

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.

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.

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

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.

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

Scientific Base of Medicine

1.- To use the scientific foundations of medicine by considering the economical, psychological, social, cultural and environmental factors which contribute to the development and evolution of diseases in order to make decisions and take medical actions.

Professional Clinical Practice

2.- To solve clinical problems through deductive reasoning, interpretation of findings and the definition of their nature in order to make decisions and determine principles of actions of the medical practice to be followed in a responsible way, impacting individual and collective health.

Critical thinking and research

7.- To apply the scientific method in the resolution of medical problems with an innovative, analytical and self-critical attitude toward the prevention, diagnosis and treatment of diseases.

Professional Values and Ethics

8.- To integrate professional values and ethics in medical practice, without distinction as to gender, race, political or sexual preference,

religious beliefs, activities performed, disabilities or socioeconomic status; promoting social inclusion and contributing to the population's well-being, its quality of life and human development.

9.- To respect patient's integrity by keeping his medical information as an essential part of the professional secrecy in order to guard his rights.

4. Summative Evaluation

- Case resolution
- workbooks
- Reading reports
- Oral presentation
- Exam
- Course Integrative Product

5. Course Integrative Product.

Written report and Oral Presentation on a congenital abnormality which involves the correlation clinical-basic. It's integrated in two sections: the first one, an extensive printed document with the case research. The second part, an oral presentation in front of the class using electronic tools and devices.

6. References

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Schoenwolf, G. C. (2014). *Larsen's human embryology*. Philadelphia, PA: Elsevier/Churchill Livingstone.

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