

# Postgraduate Certificate

## Anatomy, Physiology, Genetics and Immunology in Assisted Reproductive Nursing





## Postgraduate Certificate Anatomy, Physiology, Genetics and Immunology in Assisted Reproductive Nursing

- » Modality: online
- » Duration: 12 weeks
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtitute.com/pk/nursing/postgraduate-certificate/anatomy-physiology-genetics-immunology-assisted-reproductive-nursing](http://www.techtitute.com/pk/nursing/postgraduate-certificate/anatomy-physiology-genetics-immunology-assisted-reproductive-nursing)

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# 01

# Introduction

The study of male infertility in Assisted Reproduction Units sets in motion the care activity in many fields: from the psychological, which will be applied in dealing with the patient from his initial arrival at the clinic, to the more practical in the protocols and techniques that are developed. The nursing professional in this context requires a very complete education in order to be able to competently work in any Assisted Reproduction Unit. This program will cover the key aspects of human reproduction, with a special focus on the field of genetics and immunology in relation to reproductive disorders. This educational program is necessary to compete among the best in today's job market.





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*A highly skilled Postgraduate Certificate that will prepare you in all aspects of nursing staff work in reproductive genetics and immunology"*

This Postgraduate Certificate will prepare the student in the key aspects of human reproduction, anatomy and physiology of the reproductive organs as the key to basic knowledge in this field. The importance of neuroendocrinology in reproduction will also be highlighted, since it is hormones that guide the menstrual cycle and gametogenesis. Both oogenesis and spermatogenesis are essential for human reproduction, the processes of meiosis being the key to the development of our species. The relationship of hormones to the creation of oocytes and sperm is essential to understanding reproductive biology.

In this topic we will also discuss the menstrual cycle, fertilization and embryonic development, and the effect of age on the reproductive system, which is very important in the era of assisted reproduction in which we live.

In the second part of this Postgraduate Certificate, the relationship between genetics and immunology and assisted reproduction will be addressed. The basic techniques for the diagnosis of genetic diseases such as Down Syndrome or Klinefelter Syndrome will be reviewed. The importance of karyotyping in assisted reproduction consultation and the most complex and novel techniques, such as CGH arrays, used in preimplantation genetic diagnosis will also be discussed.

Without forgetting that preimplantation genetic diagnosis is one of the pillars in assisted reproduction treatments and the genetic studies recommended for donors and carrier Matching tests. The second block of the Postgraduate Certificate will review the key concepts of immunology, will discuss the immune system of women and the cell populations that compose it to understand the problems that can occur when there are autoimmune or alloimmune factors that compromise fertility, and the main treatments. Finally, two specific cases will be discussed, endometriosis and Chlamydia trachomatis infection, which are closely related to inflammation and the immune system.

This **Postgraduate Certificate in Anatomy, Physiology, Genetics and Immunology in Assisted Reproductive Nursing** contains the most complete and up-to-date scientific program on the market. The most important features include:

- ◆ The latest technology in online teaching software
- ◆ A highly visual teaching system, supported by graphic and schematic contents that are easy to assimilate and understand
- ◆ Practical cases presented by practising experts
- ◆ State-of-the-art interactive video systems
- ◆ Teaching supported by telepractice
- ◆ Continuous updating and recycling systems
- ◆ Autonomous learning: full compatibility with other occupations
- ◆ Practical exercises for self-evaluation and learning verification
- ◆ Support groups and educational synergies: questions to the expert, debate and knowledge forums
- ◆ Communication with the teacher and individual reflection work
- ◆ Content that is accessible from any fixed or portable device with an Internet connection
- ◆ Complementary documentation banks permanently available, even after the Postgraduate Certificate



*With this Postgraduate Certificate you will be able to balance a high-intensity program with your personal and professional life, achieving your goals in a simple and real way”*

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*Acquire the necessary skills in Anatomy, Physiology, Genetics and Immunology in Assisted Reproductive Nursing, with the solvency of a high-level professional"*

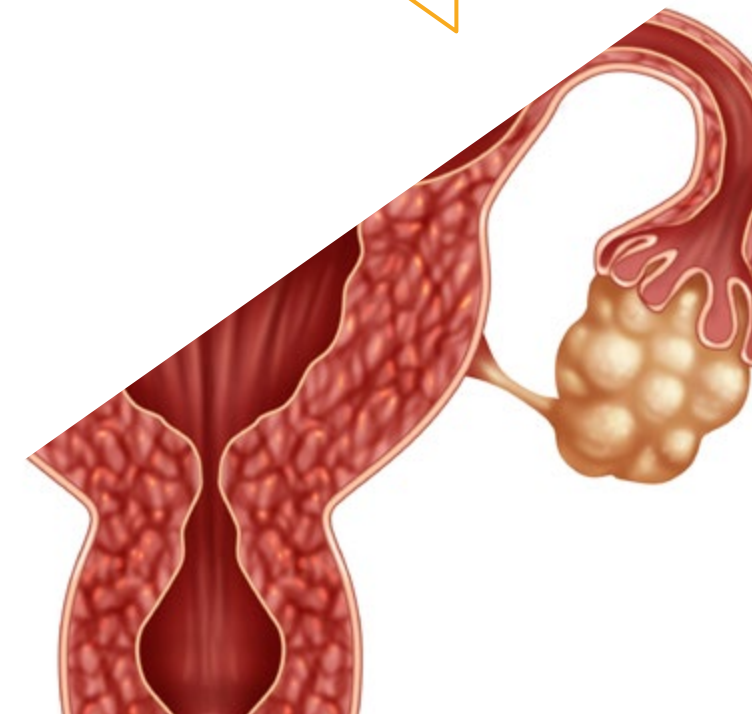
Our teaching staff is made up of professionals from different fields related to this specialty. In this way, TECH ensures that it delivers the targeted capacitive update it intends. A multidisciplinary staff, made up of educated and experienced professionals in different environments, who will develop the theoretical knowledge in an efficient way, but, above all, will put at the service of the Postgraduate Certificate the practical knowledge derived from their own experience: one of the differential qualities of this program.

This mastery of the subject matter is complemented by the effectiveness of the methodological design of this Postgraduate Certificate in Anatomy, Physiology, Genetics and Immunology in Assisted Reproductive Nursing. Developed by a multidisciplinary team of experts, it integrates the latest advances in educational technology. In this way, you will be able to study with a range of comfortable and versatile multimedia tools that will give you the operability you need in your education.

The design of this program is based on Problem-Based Learning: an approach that conceives learning as a highly practical process. To achieve this remotely, TECH will use telepractice: with the help of an innovative interactive video system and Learning from an Expert, the student will be able to acquire the knowledge as if they were facing the scenario they are learning at that moment. A concept that will allow students to integrate and memorize what they have learnt in a more realistic and permanent way.

*The learning of this program is developed through the most advanced didactic means in online teaching to guarantee that your effort will have the best possible results.*

*Our innovative telepractice concept will give you the opportunity to learn through an immersive experience, which will provide you with a faster integration and a much more realistic view of the contents: "Learning from an expert".*





# 02 Objectives

The objective of this educational program is to provide nursing professionals with the necessary knowledge and skills to perform their activity in the field of Assisted Reproduction. Through a work approach that is totally adaptable to the student, this Postgraduate Certificate will progressively lead him or her to acquire the competencies that will propel him or her to a much higher professional level.





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*Become one of the most sought after professionals of the moment, with this Postgraduate Certificate in Anatomy, Physiology, Genetics and Immunology in Assisted Reproductive Nursing”*



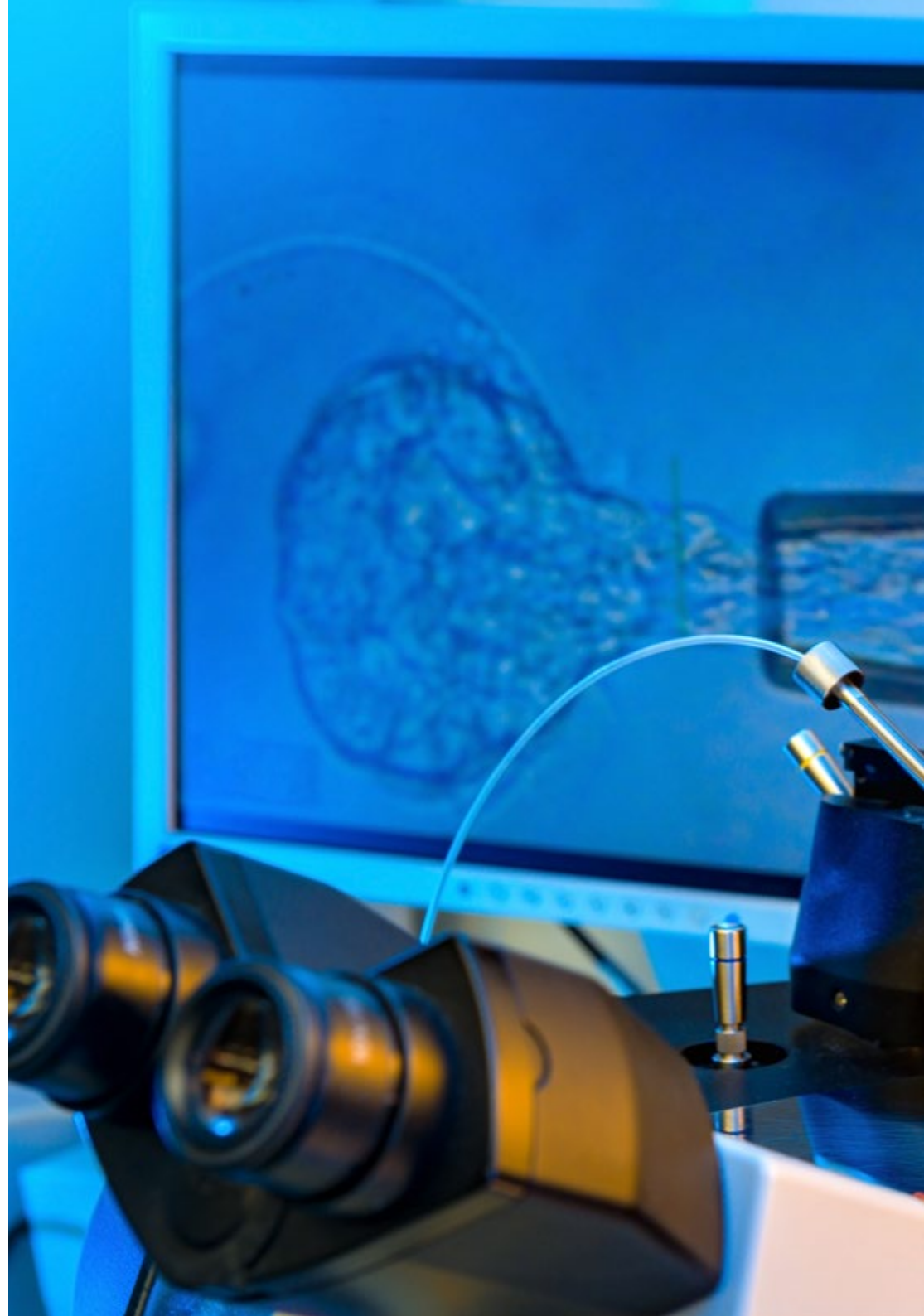
## General objectives

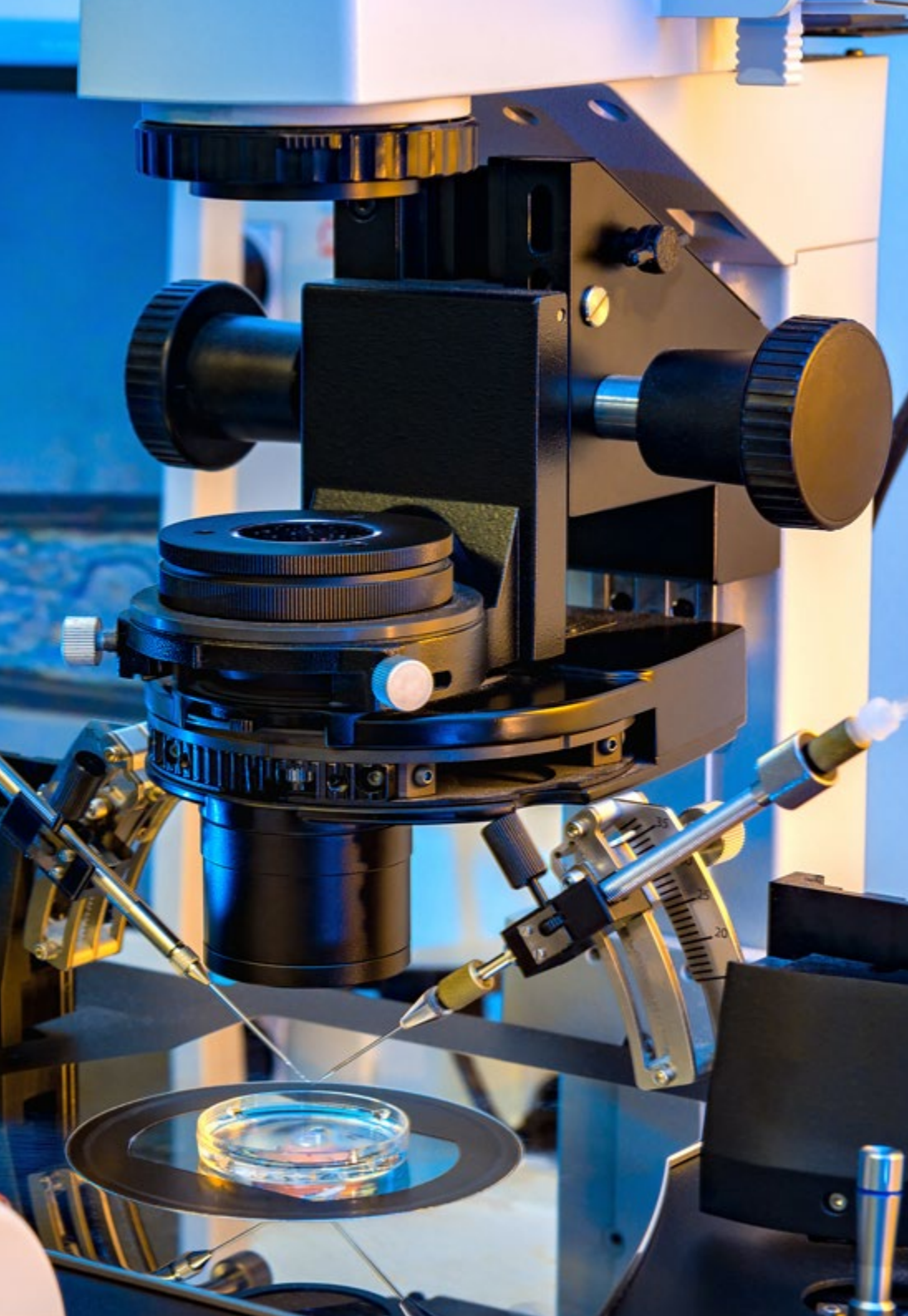
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- ◆ Broaden specific knowledge of each of the fields of work in assisted reproduction
- ◆ Enable students to be interdependent and problem solvers
- ◆ Facilitate good performance of nursing professionals in order to provide the best care throughout the process

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*A boost to your professional that will give you the competitiveness of the best prepared professionals in the labor market”*





## Specific objectives

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- ◆ Know what the initial study of the male consists of in consultation as well as the complementary explorations or genetic studies that may be requested
- ◆ Understand the importance of good semen handling practices
- ◆ Be able to perform a complete seminogram of the male
- ◆ Be able to process samples for assisted reproduction techniques
- ◆ Understand what sperm freezing consists of and be able to perform it without complications
- ◆ Be able to perform semen washings for HIV, Hepatitis B and Hepatitis C seropositive males, as well as to understand the importance of semen washings and good management, and to know when to recommend them in consultation
- ◆ Know the basics of semen donation, both at the consultation and laboratory level
- ◆ Learn about three of the most widely used sperm selection techniques currently in use, magnetically labeled cell sorting (MACS), intracytoplasmic injection of morphologically selected spermatozoa (IMSI) and selection based on hyaluronic acid binding, and therefore know when to recommend them in consultation
- ◆ Know the basics of antioxidant therapy and how to discern which antioxidants have proven efficacy and which do not



03

# Course Management

For our course to be of the highest quality, we are proud to work with a teaching staff of the highest level, chosen for their proven track record. Professionals from different areas and fields of expertise that make up a complete, multidisciplinary team. A unique opportunity to learn from the best.



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*An impressive teaching staff, made up of professionals from different fields of expertise, will be your teachers during the program: a unique opportunity not to be missed”*

## Management



### Ms. Agra Bao, Vanesa

- Operating room supervisor at EVA FERTILITY-DORSIA
- Degree in Nursing University of La Coruña
- Postgraduate Diploma in Legal Nursing. UNED
- Official Master's Degree in Occupational Risk Prevention. USP-CEU
- Master's Degree in Physical Activity and Health. Miguel de Cervantes University
- Instructor of Basic Life Support and DESA. SEMICYUC
- Postgraduate Diploma in Surgical Anesthesiology for Nursing. CEU Cardenal Herrera University
- Biosafety and Occupational Risk Prevention in Microbiology Laboratories. SEM
- The male in Assisted Reproduction EVA FERTILITY CLINICS
- Biosafety Laboratories and Research Animal Facilities with Biocontainment Level 3. SEGLA
- Nursing action in traumatic emergencies, poisoning and other urgent situations. DAE



### Ms. Boyano Rodríguez, Beatriz

- Embryologist at Clínicas EVA, Madrid
- Postgraduate Diploma in Clinical Genetics, Universidad de Alcalá de Henares, Madrid
- Master's Degree in Assisted Human Reproduction Biotechnology, IVI and University of Valencia
- Postgraduate in Medical Genetics, University of Valencia, Spain
- Degree in Biology, Universidad de Salamanca
- Member of the Association for the Study of Reproductive Biology
- Member of the Spanish Association of Human Genetics





## Professors

### Ms. Martín, Alba

- ◆ Embryologist at Clínicas EVA, Madrid
- ◆ Degree in Biology from the Complutense University of Madrid, specializing in NEUROBIOLOGY and BIOSANITARY
- ◆ Master's Degree in Mammalian Reproductive Biology and Technology at the University of Murcia, Spain
- ◆ Postgraduate and professional development program with modular structure in Health Law and Biomedicine Universidad Nacional de Educación a Distancia (National University of Distance Education)
- ◆ Online Postgraduate Certificate entitled "Epigenetic Control of Gene Expression" given by the University of Melbourne

# 04

# Structure and Content

The contents of taught have been developed by the different experts on this course, with a clear purpose: to ensure that our students acquire each and every one of the necessary skills to become true experts in this field.

A complete and well-structured program that will take you to the highest standards of quality and success.





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*A program created and directed by professional experts in Assisted Reproduction that make this Postgraduate Certificate a unique opportunity for professional growth"*



## Module 1. Anatomy and Physiology of Reproduction

- 1.1. Anatomy of the Female Reproductive Organs
  - 1.1.1. Introduction
  - 1.1.2. External Female Genitalia
    - 1.1.2.1. Vulva
    - 1.1.2.2. Mons Pubis
    - 1.1.2.3. Labia Majora
    - 1.1.2.4. Labia Minora
    - 1.1.2.5. Vaginal Vestibule
    - 1.1.2.6. Clitoris
    - 1.1.2.7. Vestibular Bulbs
  - 1.1.3. Internal Female Genitalia
    - 1.1.3.1. Vagina
    - 1.1.3.2. Uterus
    - 1.1.3.3. Fallopian Tube
    - 1.1.3.4. Ovaries
- 1.2. Endocrinology of the Female Reproductive System
  - 1.2.1. Introduction
  - 1.2.2. The Hypothalamus
    - 1.2.2.1. GnRH
  - 1.2.3. Pituitary Gland
    - 1.2.3.1. FSH and LH
  - 1.2.4. Steroid Hormones
    - 1.2.4.1. Introduction
    - 1.2.4.2. Synthesis
    - 1.2.4.3. Mechanism of Action
    - 1.2.4.4. Estrogens
    - 1.2.4.5. Androgens
    - 1.2.4.6. Progestogens
  - 1.2.5. External Modulation: Endorphins and Melatonin
  - 1.2.6. GnRH Pulses: Brain-Ovarian Relationship
  - 1.2.7. GnRH Agonists and Antagonists
- 1.3. Menstrual Cycle
  - 1.3.1. Menstrual Cycle
  - 1.3.2. Biochemical Indicators of the Menstrual Cycle
    - 1.3.2.1. Hormones in Basal State
    - 1.3.2.2. Ovulation
    - 1.3.2.3. Evaluation of Ovarian Reserve. Antimüllerian Hormone
  - 1.3.3. Ultrasound Indicators of the Menstrual Cycle
    - 1.3.3.1. Follicle Count
    - 1.3.3.2. Endometrial Ultrasound
  - 1.3.4. End of the Reproductive Age
    - 1.3.4.1. Pre-menopause
    - 1.3.4.2. Menopause
    - 1.3.4.3. Post-menopause
- 1.4. Ovogenesis (Folliculogenesis and Ovulation)
  - 1.4.1. Meiosis. From the Oogonia to the MII Oocyte
  - 1.4.2. Types of Follicles and their Relation to Ovogenesis. Follicular Dynamics
  - 1.4.3. Ovarian Recruitment and Ovulation
  - 1.4.4. Oocyte MII: Markers of Oocyte Quality
  - 1.4.5. In Vitro Oocyte Maturation
- 1.5. Anatomy of the Male Reproductive Organs
  - 1.5.1. External Male Genitalia
    - 1.5.1.1. Testicles
    - 1.5.1.2. Penis
    - 1.5.1.3. Epididymis
    - 1.5.1.4. Vas Deferens
  - 1.5.2. Internal Male Genitalia
    - 1.5.2.1. Seminal Vesicles
    - 1.5.2.2. Ejaculatory Duct
    - 1.5.2.3. Prostate
    - 1.5.2.4. Urethra
    - 1.5.2.5. Bulbourethral Glands

- 1.6. Endocrinology of the Male Reproductive System
  - 1.6.1. Testicular Function Regulation
  - 1.6.2. Androgen Biosynthesis
  - 1.6.3. Inhibins and Activins
  - 1.6.4. Prolactin
  - 1.6.5. Prostaglandins
  - 1.6.6. Estrogens
  - 1.6.7. Other Factors
- 1.7. Spermatogenesis
  - 1.7.1. Meiosis
  - 1.7.2. Differences between Ovogenesis and Spermatogenesis
  - 1.7.3. The Seminiferous Tubule
    - 1.7.3.1. Hormones Involved
    - 1.7.3.2. Cell Types
  - 1.7.4. The Blood-Tissue Barrier
  - 1.7.5. Endocrine and Paracrine Control
- 1.8. Fertilization
  - 1.8.1. Gamete Transport
  - 1.8.2. Gametic Maturation
  - 1.8.3. Gamete Interaction
- 1.9. Embryonic Development
  - 1.9.1. Zygote Formation
  - 1.9.2. First Divisions
  - 1.9.3. Blastocyst Formation and Implantation
  - 1.9.4. Gastrulation: Mesoderm and Mesoderm Formation
    - 1.9.4.1. Notochord Formation
    - 1.9.4.2. Establishment of Body Axes
    - 1.9.4.3. Setting Cellular Destinations
    - 1.9.4.4. Trophoblast Growth
  - 1.9.5. Embryonic Period or Organogenesis Period
    - 1.9.5.1. Ectoderm
    - 1.9.5.2. Mesoderm
    - 1.9.5.3. Endoderm

- 1.10. Effect of Age on the Male and Female Reproductive System
  - 1.10.1. Female Reproductive System
  - 1.10.2. Male Reproductive system

## Module 2. Genetics and Immunology of Reproduction

- 2.1. Basic Cytogenetics: the Importance of Karyotyping
  - 2.1.1. DNA and its Structure
    - 2.1.1.1. Genes
    - 2.1.1.2. Chromosomes
  - 2.1.2. The Karyotype
  - 2.1.3. Uses of Karyotyping: Prenatal Diagnosis
    - 2.1.3.1. Amniocentesis
    - 2.1.3.2. Chorionic Villus Biopsy
    - 2.1.3.3. Abortion Analysis
    - 2.1.3.4. Meiosis Studies
- 2.2. The New Era of Diagnostics: Molecular Cytogenetics and Massive Sequencing
  - 2.2.1. FISH
  - 2.2.2. CGH arrays
  - 2.2.3. Massive Sequencing
- 2.3. Origin and Etiology of Chromosomal Abnormalities
  - 2.3.1. Introduction
  - 2.3.2. Classification According to Origin
    - 2.3.2.1. Numeric
    - 2.3.2.2. Structural
    - 2.3.2.3. Mosaicism
  - 2.3.3. Classification According to Etiology
    - 2.3.3.1. Autosomal
    - 2.3.3.2. Sexual
    - 2.3.3.3. Polyploidy and Haploidy

- 2.4. Genetic Disorders in the Infertile Couple
  - 2.4.1. Genetic Disorders in Women
    - 2.4.1.1. Hypothalamic Origin
    - 2.4.1.2. Pituitary Origin
    - 2.4.1.3. Ovarian Origin
      - 2.4.1.3.1. Chromosomal Alterations
        - 2.4.1.3.1.1. Total X Chromosome: Turner Syndrome
        - 2.4.1.3.1.2. Partial Deletion of the X Chromosome
        - 2.4.1.3.1.3. X Chromosome Translocations and Autosomes
        - 2.4.1.3.1.4. Others
    - 2.4.1.4. Monogenic Alterations
      - 2.4.1.4.1. Fragile X
    - 2.4.1.5. Hereditary Thrombophilias
  - 2.4.2. Genetic Disorders in Men
    - 2.4.2.1. Numerical Disorders: Klinefelter's Syndrome
    - 2.4.2.2. Robertsonian Translocations
    - 2.4.2.3. CFTR Mutation
    - 2.4.2.4. Y Chromosome Microdeletions
- 2.5. Pre-Implantation Genetic Diagnosis (PGT): Pre-Implantation Genetic Testing
  - 2.5.1. Introduction
  - 2.5.2. Embryo Biopsy
  - 2.5.3. Indications
  - 2.5.4. Genetic Diagnosis for Monogenic Diseases (PGT-M)
    - 2.5.4.1. Carrier Studies
  - 2.5.5. Genetic Diagnosis for Structural Abnormalities
    - 2.5.5.1. Numerical (Aneuploidies; PGT-A)
    - 2.5.5.2. Structural (PGT-SR)
  - 2.5.6. Combined Genetic Diagnosis
  - 2.5.7. Limitations
  - 2.5.8. Mosaic Embryos as a Special Case
  - 2.5.9. Non-Invasive Pre-Implantational Genetic Diagnosis
- 2.6. Babies with Three Genetic Progenitors, Nuclear Transfer in Mitochondrial Diseases
  - 2.6.1. Mitochondrial DNA
  - 2.6.2. Mitochondrial Diseases
  - 2.6.3. Donor Cytoplasmic Transfer
- 2.7. Epigenetics
  - 2.7.1. General Concepts
  - 2.7.2. Epigenetic Modifications
  - 2.7.3. Genetic Imprinting
- 2.8. Genetic Studies in Donors
  - 2.8.1. Recommendations
  - 2.8.2. Carrier Matching
  - 2.8.3. Carrier Panels
- 2.9. The Immunological Factor in Assisted Reproduction
  - 2.9.1. General Aspects
  - 2.9.2. The Immune System in Women in Constant Change
  - 2.9.3. Immune Cell Population in the Female Reproductive System
    - 2.9.3.1. Regulation of T-Lymphocyte Populations
    - 2.9.3.2. Cytokines
    - 2.9.3.3. Female Hormones
  - 2.9.4. Infertility of Autoimmune Origin
    - 2.9.4.1. Antiphospholipid Syndrome
    - 2.9.4.2. Anti-Thyroid Antibodies
    - 2.9.4.3. Anti-Nuclear Antibodies
    - 2.9.4.4. Anti-Ovarian and Anti-FSH Antibodies
    - 2.9.4.5. Anti-Sperm Antibodies
  - 2.9.5. Alloimmune Infertility, the Contribution of the Fetus
    - 2.9.5.1. The Embryo as Antigen
    - 2.9.5.2. Implantation Failure of Euploid Embryos
      - 2.9.5.2.1. NK Cells
      - 2.9.5.2.2. T-Helpers
      - 2.9.5.2.3. Autoantibodies





- 2.9.6. The Role of Sperm and Spermatozoa
  - 2.9.6.1. T-Lymphocyte Regulation
  - 2.9.6.2. Seminal Fluid and Dendritic Cells
  - 2.9.6.3. Clinical Relevance
- 2.10. Immunotherapy and Special Situations
  - 2.10.1. Introduction
  - 2.10.2. Aspirin and Heparin
  - 2.10.3. Corticosteroids
  - 2.10.4. Antibiotic Therapy
  - 2.10.5. Colony Growth Factors
  - 2.10.6. Intravenous Fat Emulsions
  - 2.10.7. Intravenous Immunoglobulins
  - 2.10.8. Adalimumab
  - 2.10.9. Peripheral Mononuclear Cells
  - 2.10.10. Seminal Plasma
  - 2.10.11. Antibody-Free Semen Preparations
  - 2.10.12. Tacrolimus
  - 2.10.13. Risks and Benefits
  - 2.10.14. Conclusions
  - 2.10.15. Special Situations: Endometriosis
  - 2.10.16. Special Situations - Chlamydia Trachomatis Infection

“A comprehensive teaching program, structured in well-developed teaching units, oriented towards learning that is compatible with your personal and professional life”

05

# Methodology

This academic program offers students a different way of learning. Our methodology uses a cyclical learning approach: **Relearning**.

This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.





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*Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"*

## At TECH Nursing School we use the Case Method

In a given situation, what should a professional do? Throughout the program, students will face multiple simulated clinical cases, based on real patients, in which they will have to do research, establish hypotheses, and ultimately resolve the situation. There is an abundance of scientific evidence on the effectiveness of the method. Nurses learn better, faster, and more sustainably over time.

*With TECH, nurses can experience a learning methodology that is shaking the foundations of traditional universities around the world.*



According to Dr. Gérvas, the clinical case is the annotated presentation of a patient, or group of patients, which becomes a "case", an example or model that illustrates some peculiar clinical component, either because of its teaching power or because of its uniqueness or rarity. It is essential that the case is based on current professional life, in an attempt to recreate the real conditions in professional nursing practice.



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*Did you know that this method was developed in 1912, at Harvard, for law students? The case method consisted of presenting students with real-life, complex situations for them to make decisions and justify their decisions on how to solve them. In 1924, Harvard adopted it as a standard teaching method”*

The effectiveness of the method is justified by four fundamental achievements:

1. Nurses who follow this method not only grasp concepts, but also develop their mental capacity, by evaluating real situations and applying their knowledge.
2. The learning process has a clear focus on practical skills that allow the nursing professional to better integrate knowledge acquisition into the hospital setting or primary care.
3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.
4. Students like to feel that the effort they put into their studies is worthwhile. This then translates into a greater interest in learning and more time dedicated to working on the course.



## Relearning Methodology

At TECH we enhance the case method with the best 100% online teaching methodology available: Relearning.

This university is the first in the world to combine case studies with a 100% online learning system based on repetition combining a minimum of 8 different elements in each lesson, which is a real revolution compared to the simple study and analysis of cases.



*The nurse will learn through real cases and by solving complex situations in simulated learning environments. These simulations are developed using state-of-the-art software to facilitate immersive learning.*



At the forefront of world teaching, the Relearning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best online university (Columbia University).

With this methodology we have trained more than 175,000 nurses with unprecedented success in all specialities regardless of practical workload. Our pedagogical methodology is developed in a highly competitive environment, with a university student body with a strong socioeconomic profile and an average age of 43.5 years old.

*Relearning will allow you to learn with less effort and better performance, involving you more in your specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to success.*

In our program, learning is not a linear process, but rather a spiral (learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

The overall score obtained by TECH's learning system is 8.01, according to the highest international standards.



This program offers the best educational material, prepared with professionals in mind:



### Study Material

All teaching material is produced by the specialists who teach the course, specifically for the course, so that the teaching content is really specific and precise.

These contents are then applied to the audiovisual format, to create the TECH online working method. All this, with the latest techniques that offer high quality pieces in each and every one of the materials that are made available to the student.



### Nursing Techniques and Procedures on Video

We introduce you to the latest techniques, to the latest educational advances, to the forefront of current medical techniques. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch them as many times as you want.



### Interactive Summaries

The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



### Additional Reading

Recent articles, consensus documents and international guidelines, among others. In TECH's virtual library, students will have access to everything they need to complete their course.





### Expert-Led Case Studies and Case Analysis

Effective learning ought to be contextual. Therefore, TECH presents real cases in which the expert will guide students, focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.



### Testing & Retesting

We periodically evaluate and re-evaluate students' knowledge throughout the program, through assessment and self-assessment activities and exercises, so that they can see how they are achieving their goals.



### Classes

There is scientific evidence suggesting that observing third-party experts can be useful.

Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.



### Quick Action Guides

TECH offers the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help students progress in their learning.



06

# Certificate

The Postgraduate Certificate in Anatomy, Physiology, Genetics and Immunology in Assisted Reproductive Nursing guarantees you, in addition to the most rigorous and up-to-date training, access to a Postgraduate Certificate issued by TECH Technological University.





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*Successfully complete this program  
and receive your university degree  
without travel or laborious paperwork”*

This **Postgraduate Certificate in Anatomy, Physiology, Genetics and Immunology in Assisted Reproductive Nursing** contains the most complete and up-to-date scientific program on the market.

After the student has passed the assessments, they will receive their corresponding **Postgraduate Certificate** issued by **TECH Technological University** via tracked delivery\*.

The certificate issued by **TECH Technological University** will reflect the qualification obtained in the Postgraduate Certificate, and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional career evaluation committees.

Title: **Postgraduate Certificate in Anatomy, Physiology, Genetics and Immunology in Assisted Reproductive Nursing**

Official N° of hours: **300 h.**



\*Apostille Convention. In the event that the student wishes to have their paper certificate issued with an apostille, TECH EDUCATION will make the necessary arrangements to obtain it, at an additional cost.



future  
health confidence people  
education information tutors  
guarantee accreditation teaching  
institutions technology learning  
community commitment  
personalized service innovation  
knowledge present  
development language  
virtual classroom



**Postgraduate Certificate**  
Anatomy, Physiology, Genetics  
and Immunology in Assisted  
Reproductive Nursing

- » Modality: **online**
- » Duration: **12 weeks**
- » Certificate: **TECH Technological University**
- » Dedication: **16h/week**
- » Schedule: **at your own pace**
- » Exams: **online**

# Postgraduate Certificate

Anatomy, Physiology, Genetics  
and Immunology in Assisted  
Reproductive Nursing

