

# Postgraduate Certificate

## Assessment and Life Support of the Poisoned Patient





## Postgraduate Certificate Assessment and Life Support of the Poisoned Patient

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtute.com/us/medicine/postgraduate-certificate/assessment-life-support-poisoned-patient](http://www.techtute.com/us/medicine/postgraduate-certificate/assessment-life-support-poisoned-patient)

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# 01

# Introduction

Accidental or voluntary exposure to a toxic substance can cause various clinical manifestations 2 or 3 hours after contact. Acute poisonings should be treated according to the clinical manifestations of the patient and the previous assessment of the specialist, which generally begins with the appropriate anamnesis, investigating the circumstances and exploring the patient to reach the most accurate diagnosis. It is crucial for every specialist in the area to be up to date with the advances in the subject and the scientific evidence generated in the last years, since this way they will perform an effective management and vital support of the patient. This academic program brings together all the latest developments on the subject, thanks to the intervention of expert teachers and with an active work profile in this sector, which provides a series of real cases and an endorsed content that will transmit the most current knowledge that the student wants. It will be 100% online and from the most secure, comfortable and intuitive virtual platform.





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*This Postgraduate Certificate in Assessment and Life Support of the Poisoned Patient has the latest scientific evidence on the subject and you will get up to date in just weeks in a 100% online way"*

Acute poisoning is a frequent cause of pathological processes and death. Although the figures show that most cases end favorably, since between 70 and 80% of cases are discharged from the Emergency Department itself, 2% require treatment in ICU and between 20-25% require hospitalization. The diagnosis in these cases is based on an adequate anamnesis, a correct clinical symptomatology assessment and complementary explorations.

In order to perform this procedure according to each case and with the effectiveness required, this Postgraduate Certificate is a tool for updating the advances in the Assessment and Life Support of the Poisoned Patient. For this purpose, TECH has chosen a team of specialists in Emergency Toxicology, who have designed an academic itinerary of high educational level.

This syllabus includes 2 modules of the most relevant and current topics to be known by the specialist in Emergency and Primary Care to implement decontamination procedures in acute poisoning, identify the effects of xenobiotics and other toxicants, describe the systemic repercussions of poisoning, among other clinical manifestations, and differentiate them in each case.

Therefore, the graduate will have the necessary background to undertake a therapeutic management of the poisoned patient, applying specific protocols to be followed in each case. There will be 6 weeks of 100% online study, in which the specialist will advance progressively and naturally, without complications towards the new academic goal, because they will be guided by expert teachers and multiple multimedia resources: detailed videos, quick action guides, complementary readings, self-assessment tests, among others. Getting the update they want and with the comfort and quality that only TECH can offer.

This **Postgraduate Certificate in Assessment and Life Support of the Poisoned Patient** contains the most complete and up-to-date scientific program on the market. The most important features include:

- ♦ The development of practical cases presented by experts in Toxicology in the Emergency Room
- ♦ The graphic, schematic, and practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional practice
- ♦ Practical exercises where the self-assessment process can be carried out to improve learning
- ♦ Its special emphasis on innovative methodologies
- ♦ Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- ♦ The availability of access to the contents from any fixed or portable device with Internet connection



*Describe the ECG alterations in poisonings that produce cardiac involvement”*

“

*Get up to date in Assessment and Life Support of the Poisoned Patient in an agile and dynamic way thanks to the exclusive study methodology that only TECH can offer you"*

The program includes in its teaching staff professionals of the sector who pour into this training the experience of their work, in addition to recognized specialists from reference societies and prestigious universities.

Its multimedia content, developed with the latest educational technology, will allow the professional a situated and contextual learning, that is, a simulated environment that will provide an immersive training programmed to train in real situations.

This program is designed around Problem-Based Learning, whereby professionals must try to solve the different professional practice situations that arise throughout the program. For this purpose, the student will be assisted by an innovative interactive video system created by renowned experts.

*You will be able to differentiate the effects of xenobiotics and other toxic substances.*

*You will implement decontamination procedures in acute poisonings in an updated way after studying this program.*



# 02 Objectives

This Postgraduate Certificate in Assessment and Life Support of the Poisoned Patient will allow the graduate to perform an accurate diagnosis and therapeutic management in cases of poisoning in its different scales, having a complete vision of the situation and being able to apply the most effective procedures in case of respiratory arrest and ventilatory support. Additionally to carrying out complementary explorations in toxicological syndromes in their office.





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*You will have a new therapeutic approach to carry out in the poisoned patient, after an accurate assessment and support”*



## General Objectives

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- Define the basic and general principles of care for the severely poisoned patient
- Identify the main toxics available in our environment
- Describe the main signs and symptoms related to severe acute poisoning and its organ involvement
- Implement mechanisms to protect the severely poisoned patients and those around them
- Detect complications related to the related toxicant or to the patient's health status
- Explain the process of care, diagnosis and treatment of the severely poisoned patient in all its dimensions



*This Postgraduate Certificate becomes a great tool for today's physician's background"*





## Specific Objectives

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- ◆ Explain the decontamination procedures in acute dermal poisoning
- ◆ Define the toxicity mechanisms in the men's and female genitourinary tract
- ◆ Identify the effects of xenobiotics
- ◆ Describe the ECG alterations in poisonings that produce cardiac involvement
- ◆ Recognize the possible arrhythmias to be detected in acute poisonings
- ◆ Manage the hematological involvement that occurs in acute poisonings
- ◆ Undertake Screening Procedures for Patients with Smoke Inhalation Poisoning
- ◆ Determine the therapeutic approach to be carried out in the patient poisoned by inhalation of fumes or other respiratory agents
- ◆ Establish the differential diagnosis between the different toxic renal syndromes
- ◆ Identify the clinical pictures that can occur in poisoning with neurological involvement
- ◆ Describe the systemic repercussion of eye poisoning
- ◆ Know those toxic substances that cause hepatic affectation and its repercussion at the organic level
- ◆ Assess violent and self-injurious behaviors in relation to psychiatric toxicology

# 03

# Course Management

This program has been designed by a team of professionals with extensive experience in the Assessment and Life Support of the Poisoned Patient, who have poured all their experience in each of the topics of study. The elaboration of the theoretical and practical material contains exemplary cases from their own experiences and the latest scientific evidence, which makes this course a great tool for today's physician.





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*TECH offers you the most specialized teaching staff in the area of study. Enroll now and enjoy the quality you deserve”*



## Management



### Dr. Álvarez Rodríguez, Cesáreo

- ♦ Emergency Physician Head of the Emergency Unit of Verín Hospital
- ♦ Chairman of the Research and Teaching, Ethics and Medical Records Committee Verín Hospital
- ♦ Coordinator of the Toxicology Working Group of SEMES Galicia
- ♦ Scientific Secretary of the Galician Society of Emergency Medicine (SEMES Galicia)
- ♦ Vice-Secretary for Training of the Spanish Society of Emergency Medicine (SEMES)
- ♦ Director of Doctoral Thesis in the area of Clinical Toxicology (Extraordinary Award)
- ♦ Resident Intern. Virgen de la Concha General Hospital of Zamora
- ♦ Specialist in the Emergency Department Virgen de la Concha General Hospital of Zamora
- ♦ Resident Intern. Professional School of Sports Medicine of the University of Oviedo
- ♦ Primary Care Physician SERGAS
- ♦ PhD in Medicine and Surgery from the Autonomous University of Madrid.
- ♦ Degree in Medicine and Surgery from the University of Santiago de Compostela with a Bachelor's Degree in Medicine and Surgery
- ♦ Physical Education and Sports Medicine Professional School of Sports Medicine of the University of Oviedo
- ♦ Research Sufficiency by the University of Salamanca
- ♦ Specialist in Family and Community Medicine
- ♦ Postgraduate Diploma in Health Promotion
- ♦ Advanced Life Support Instructor (American Heart Association Accredited)
- ♦ Member of the Editorial Board of the journal "Emergencias"

## Professors

### Dr. Burillo-Putze, Guillermo

- ♦ Specialist in Family and Community Medicine
- ♦ Researcher of the Department of Physical and Pharmacological Medicine of the University of La Laguna
- ♦ Former Coordinator of the Emergency Department of the University Hospital Complex of the Canary Islands
- ♦ Doctor in Medicine and Surgery from the University of La Laguna
- ♦ Postgraduate Diploma in Toxicology by the University of Seville
- ♦ Advanced Life Support Instructor Course of the School of Clinical Toxicology of Washington, USA
- ♦ Member of European Register of Toxicologists and Spanish Association of Toxicology

### Dr. Bajo Bajo, Angel Ascensiano

- ♦ Hospital Emergency Physician at the University Health Care Complex of Salamanca
- ♦ Associate Professor of Emergency Medicine at the University of Salamanca
- ♦ PhD in Medicine from the University of Salamanca
- ♦ Degree in Medicine and Surgery from the University of Salamanca
- ♦ Certified in Emergency Medicine by the Spanish Society of Emergency Medicine (SEMES)
- ♦ Member of Clinical Toxicology Section of the Spanish Association of Toxicology (AETOX), Clinical Toxicology Working Group of the Spanish Society of Emergency Medicine (SEMETOX), European Association of Poison Control Centres and Clinical Toxicology (EAPCCT) and Founder of the Spanish Foundation of Toxicology (FETOC)

### Mr. Carnero Fernandez, César Antonio

- ♦ Deputy Inspector of National Police
- ♦ Specialist in narcotic poisoning in the TEDAX-NRBQ Unit

### Ms. Giralde Martínez, Patricia

- ♦ Prehospital Emergency Physician in the Galician 061 Health Emergency Service
- ♦ Hospital Emergency Physician at the Montecelo Hospital
- ♦ Postgraduate University Professor in the course "Postgraduate Diploma in Urgencies and Emergencies" of the School of Health Sciences of the Complutense University of Madrid
- ♦ General Vice-Secretary of the Galician Society of Emergency Medicine (SEMES Galicia)
- ♦ Member of Scientific Committee of the XXI Conference on Clinical Toxicology and XI Conference on Toxicovigilance
- ♦ Graduate in Medicine and Surgery from the University of Santiago de Compostela
- ♦ Specialist in Family and Community Medicine
- ♦ Master's Degree in Urgencies, Emergencies and Catastrophes by CEU San Pablo University

### Dr. Miguéns Blanco, Iria

- ♦ Doctor at the Emergency Department of the Gregorio Marañón General University Hospital
- ♦ Specialist in Prehospital Emergency Medicine in the Emergency Service of the Community of Madrid-SUMMA
- ♦ Specialist in Family and Community Medicine
- ♦ Graduate in Medicine and Surgery from the University of Santiago de Compostela
- ♦ Master's Degree in Emergency Medicine from the Complutense University of Madrid
- ♦ Master's Degree in Teaching and Digital Skills in Health Sciences by Cardenal Herrera CEU University
- ♦ Master's Degree in Healthcare Law and Bioethics from the University of Castilla-La Mancha
- ♦ SEMES national board member and director of Mujeres SEMES

**Dr. Mayan Conesa, Plácido**

- ♦ Emergency Coordinator at University Clinical Hospital of Santiago
- ♦ Emergency Physician at the University Hospital Complex of La Coruña
- ♦ Reviewer of the journal Emergencias
- ♦ Teacher of Advanced Life Support
- ♦ Graduate in Medicine and Surgery from the Universidad de Navarra
- ♦ Specialist in Family and Community Medicine
- ♦ Diploma of Advanced Studies from the University of La Coruña
- ♦ Member of SEMES (board of directors)

**Dr. Maza Vera, María Teresa**

- ♦ Undersecretary of Accreditation and Quality of SEMES
- ♦ Specialist in Hospital Emergency Medicine at the Álvaro Cunqueiro Hospital of Vigo
- ♦ Member of the Toxicology Working Group of SEMES Galicia
- ♦ Coordinator of the Scientific Committee of the XXIV Autonomic Congress SEMES Galicia
- ♦ Specialist in Family and Community Medicine
- ♦ Diploma of Advanced Studies in Health Sciences from the University of Vigo

**Mr. Rodríguez Domínguez, José María**

- ♦ TEDAX-NRBQ Specialist in the TEDAX-NRBQ Unit of the National Police
- ♦ TEDAX-NRBQ teacher for national and international organizations
- ♦ Degree in Biology from the University of Santiago de Compostela



**Dr. Suárez Gago, María del Mar**

- ◆ Assistant Physician of the Emergency Department of the Verín Hospital
- ◆ Member of the Toxicology Working Group of SEMES Galicia
- ◆ Specialist in Internal Medicine
- ◆ VMER (Medical Emergency and Resuscitation Vehicle) accreditation of the Training Center of the National Institute of Medical Emergencies of Oporto (INEM)
- ◆ Degree in Medicine and Surgery University of the Basque Country

“ *Our teaching team will provide you with all their knowledge so that you are up to date with the latest information on the subject*”



# 04

## Structure and Content

Studying 100% online will bring great advantages to the professional. From choosing the best schedule for learning to deciding where and how to study. Thanks to the advanced technology and methodology implemented by TECH based on *Relearning*, the specialist will obtain the best results in a comfortable and fast way. In just weeks, they will acquire the updates on the management of the poisoned patient with the knowledge of the latest scientific evidence. From their favorite digital device, they will make the best academic journey, from the hand of the most reputable teachers.







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*Relearning methodology provides flexibility and learning efficiency, assimilating the contents much faster”*

## Module 1. Assessment of the Poisoned Patient

- 1.1. Introduction to the Module
  - 1.1.1. Medical History
    - 1.1.1.1. Medical History
    - 1.1.1.2. Physical Examination
    - 1.1.1.3. Complementary Evaluations
  - 1.1.2. Toxic Syndromes
    - 1.1.2.1. Sympathomimetics
    - 1.1.2.2. Cholinergic Drugs
    - 1.1.2.3. Anticholinergics
    - 1.1.2.4. Serotonergic Drugs
    - 1.1.2.5. Opioids
    - 1.1.2.6. Sedative-Hypnotic Drugs
    - 1.1.2.7. Hallucinatory Drugs
  - 1.1.3. Metabolic Acidosis in Toxicology
  - 1.1.4. Diagnosis of Suspected Poisoning and Diagnostic Hypotheses
  - 1.1.5. Conclusions and Key Points
- 1.2. Initial Assessment of Patients Suffering from Poisoning
  - 1.2.1. Preliminary
    - 1.2.1.1. Introduction
    - 1.2.1.2. Index
    - 1.2.1.3. Objectives
  - 1.2.2. Hepatic Toxicology
  - 1.2.3. Renal Toxicology
  - 1.2.4. Hematological Toxicity
  - 1.2.5. Neurological and Psychiatric Toxicology
  - 1.2.6. Conclusions and Key Points
  - 1.2.7. Cardiovascular and Respiratory Toxicology

- 1.3. Toxic Organ Involvement
  - 1.3.1. Preliminary
    - 1.3.1.1. Introduction
    - 1.3.1.2. Index
    - 1.3.1.3. Objectives
  - 1.3.2. Reproductive and Perinatal Toxicology
  - 1.3.3. Neonatal and Pediatric Toxicology
  - 1.3.4. Geriatric Toxicology
- 1.4. Group Toxicology

## Module 2. Therapeutic Management of the Poisoned Patient: Life Support

- 2.1. A Complete Overview of Poisoning Treatment
- 2.2. Life Support for Poisoned Patients: Cardiopulmonary Arrest
  - 2.2.1. The Fundamental Pillars of Life Support in Cardiopulmonary Arrest
  - 2.2.2. Respiratory Arrest and Ventilatory Support
  - 2.2.3. Cardiorespiratory Arrest in Poisoned Patients
  - 2.2.4. Conclusions and Key Points
- 2.3. Acute Respiratory Failure in Poisoned Patients and Therapeutic Management
  - 2.3.1. Preliminary
  - 2.3.2. Acute Respiratory Failure due to Airway Obstruction
  - 2.3.3. Acute Respiratory Failure due to Hypoventilation
  - 2.3.4. Acute Respiratory Failure due to Decrease in Inspiratory Oxygen Fraction
  - 2.3.5. Acute Respiratory Failure due to Alveolocapillary Diffusion Impairment
  - 2.3.6. Acute Respiratory Failure due to Altered Oxygen Transport or Tissue Oxygen Utilization
  - 2.3.7. Acute Mixed Respiratory Failure
  - 2.3.8. Conclusions and Key Points



- 2.4. Hemodynamic Stability and Instability in Poisoned Patients
  - 2.4.1. Shock and its Different Types in Poisoned Patients
  - 2.4.2. Therapeutic Management of Shock in Poisoned Patients
  - 2.4.3. Hypotension and Hypertension in Poisoned Patients
  - 2.4.4. Cardiac Arrhythmias in Acute Poisoning
  - 2.4.5. Acute Coronary Syndrome in Poisoned Patients
  - 2.4.6. Conclusions and Key Points
- 2.5. Neuropsychiatric Disorders Associated with Poisoning
  - 2.5.1. Disorders of Consciousness Toxic Coma
  - 2.5.2. Seizures
  - 2.5.3. Behavioral Disorder. Agitated Patient Management
    - 2.5.3.1. Etiology of Psychomotor Agitation. Toxicology-Related Causes
    - 2.5.3.2. Protective Measures for Health Care Personnel
    - 2.5.3.3. Verbal, Mechanical and Pharmacological Restraint Measures
  - 2.5.4. Conclusions and Key Points

“ *This Postgraduate Certificate in Assessment and Life Support of the Poisoned Patient is the answer to the update you were looking for. Live a new experience with TECH*”

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 we use the Case Method

What should a professional do in a given situation? 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. Specialists learn better, faster, and more sustainably over time.

*With TECH you will experience a way of learning 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, trying to recreate the real conditions in the physician's professional 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. Students who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity, through exercises that evaluate real situations and the application of knowledge.
2. Learning is solidly translated into practical skills that allow the student to better integrate into the real world.
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 the study of clinical cases with a 100% online learning system based on repetition, combining a minimum of 8 different elements in each lesson, a real revolution with respect to the mere study and analysis of cases.

*Professionals will learn through real cases and by resolving 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, more than 250,000 physicians have been trained with unprecedented success in all clinical specialties regardless of surgical load. 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 highly 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.



#### Surgical Techniques and Procedures on Video

TECH introduces students to the latest techniques, the latest educational advances and 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 the videos as many times as you like.



#### 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 on the usefulness of learning by observing experts. The system known as 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 Assessment and Life Support of the Poisoned Patient guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Technological University.



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*Successfully complete this program  
and receive your university qualification  
without having to travel or fill out  
laborious paperwork"*



This **Postgraduate Certificate in Assessment and Life Support of the Poisoned Patient** contains the most complete and up-to-date scientific 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 diploma 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 Assessment and Life Support of the Poisoned Patient**

Official N° of Hours: **200 h.**



\*Apostille Convention. In the event that the student wishes to have their paper diploma 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 languages  
virtual classroom



## Postgraduate Certificate Assessment and Life Support of the Poisoned Patient

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

# Postgraduate Certificate

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