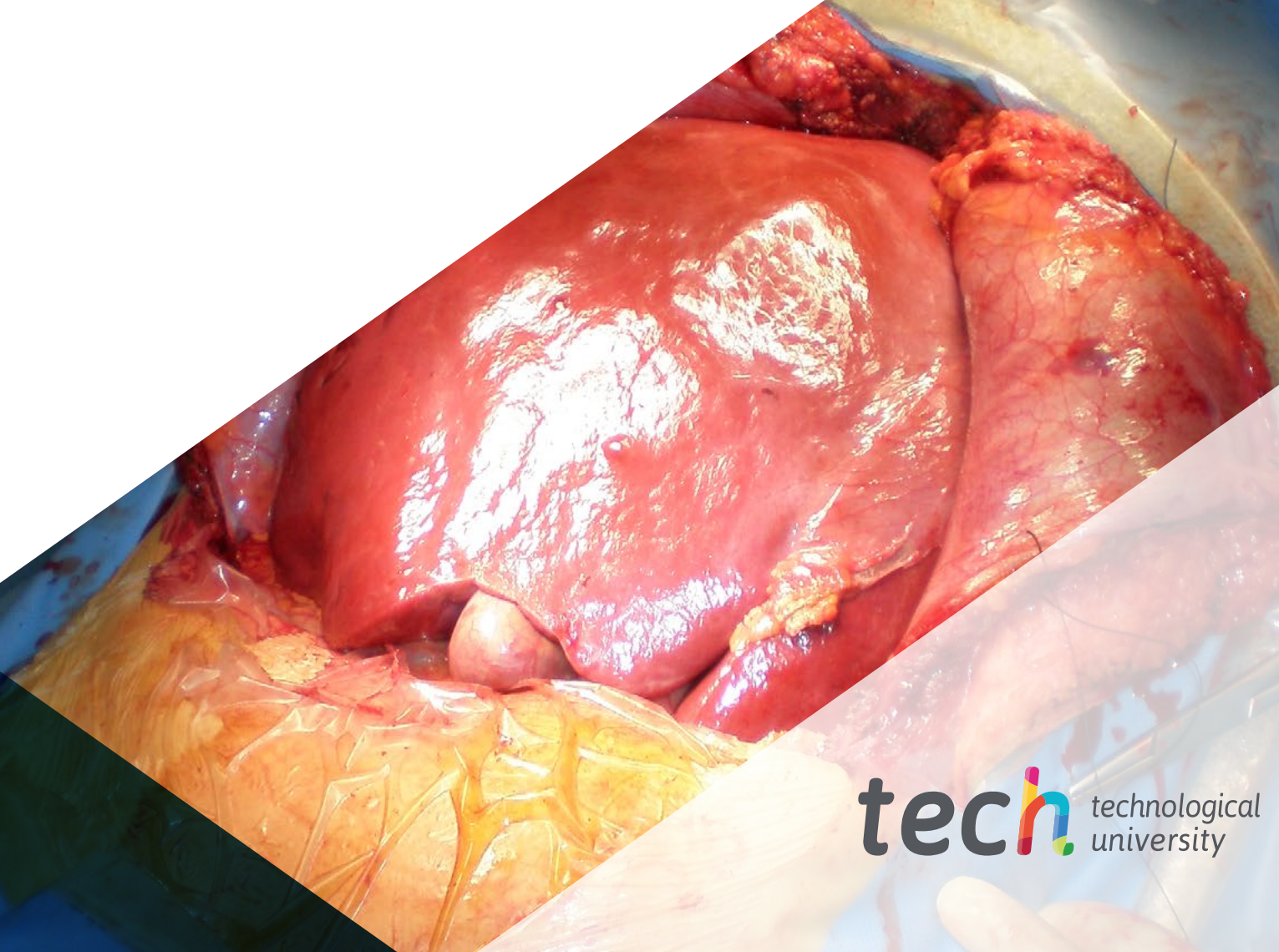


# Professional Master's Degree

## Hepatology





## Professional Master's Degree Hepatology

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

Website: [www.techtitute.com/in/medicine/professional-master-degree/master-hepatology](http://www.techtitute.com/in/medicine/professional-master-degree/master-hepatology)

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# 01

# Introduction

Advances in hepatology and its clinical application demand new skills from professionals and increasingly stringent quality requirements in their performance. This specialty is highly relevant if we consider that one out of every three people in the world is exposed to the hepatitis B or C virus, with hepatitis being one of the priority diseases in the World Health Organization's Millennium Development Goals.





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*Specialize! The development of diagnostic and therapeutic techniques for liver pathologies has turned hepatology into an area of knowledge or specific education that is highly demanded by medical professionals today"*

Hepatology has experienced great changes in recent years. There have been important developments in the last 35-40 years, in both diagnostic and treatment techniques. In terms of diagnosis, we have seen the introduction of Ultrasound, Computerized Axial Tomography, Nuclear Magnetic Resonance, FibroScan, etc.

With regard to treatment, we have gone from patiently observing the evolution of liver disease without being able to offer patients anything, to now being able to prescribe effective treatments such as new antivirals for hepatitis B and C, immunosuppressants for autoimmune diseases or liver transplantation for end-stage liver disease.

All this has meant that Hepatology today constitutes a specific area of knowledge, which sometimes exceeds the objectives of the digestive system specialists' education period, thereby implying the need for professional development and the existence of skilled professionals.

It is essential that specialists can respond adequately to the evolution of these events, through an adequate update of their knowledge and the incorporation of these advances in their daily medical practice, which is why TECH has developed this comprehensive program in response to an in-demand specialty.

This **Professional Master's Degree in Hepatology** contains the most complete and up-to-date scientific program on the market. The most important features include:

- More than 80 clinical cases, presented by experts in different specialties. 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
- New diagnoses and treatments for different hepatic pathologies
- Presentation of practical workshops on procedures, diagnosis, and treatment techniques
- An algorithm-based interactive learning system for decision-making in the clinical situations presented throughout the course
- Special emphasis on evidence-based medicine and research methodologies in the field of hepatology
- All of this will be complemented by theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- Content that is accessible from any fixed or portable device with an Internet connection



*You will learn in depth about the advances made in the diagnosis and treatment of viral hepatitis, the recognition of new liver pathologies and the generalization of liver transplantation"*

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*This Professional Master's Degree may be the best investment you can make when selecting a refresher program, for two reasons: in addition to updating your knowledge in Hepatology, you will obtain a Professional Master's Degree from TECH Technological University"*

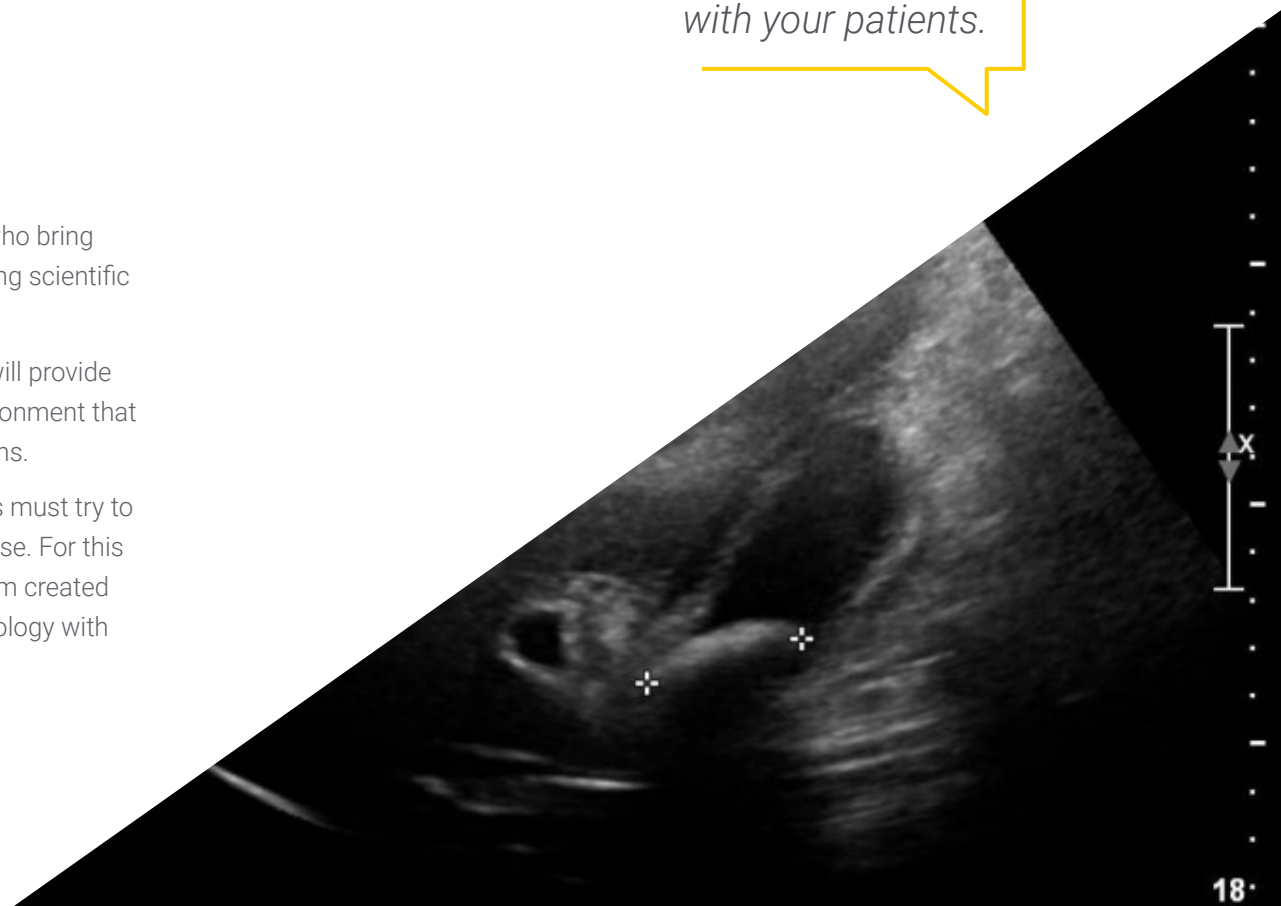
The program's teaching staff includes a team of healthcare professionals, who bring their experience to this program, as well as renowned specialists from leading scientific societies.

The multimedia content, developed with the latest educational technology will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide an immersive course, programmed for practising in real situations.

This program is designed around Problem-Based Learning, whereby doctors must try to solve the different professional practice situations that arise during the course. For this purpose, specialists will be assisted by an innovative interactive video system created by renowned and experienced experts in treating patients with hepatic pathology with extensive teaching experience.

*Increase your confidence in decision making by updating your knowledge, through this Professional Master's Degree.*

*Make the most of this opportunity and choose to stay up to date, to improve your medical practice with your patients.*



# 02 Objectives

This program is designed to expand doctors' knowledge in biology and hepatobiliary diseases, so they develop skills and attitudes in diagnostic and treatment procedures in order to know its indications and how to carry them out.





A close-up photograph of a hand resting on a hairy arm, showing the texture of the skin and the hair. The hand is positioned on the left side of the frame, with fingers slightly curled. The arm is hairy and extends towards the right. The background is a dark blue gradient.

“

*You will update your knowledge in the management of patients with liver disease with the latest advances and the best professionals in this medical specialty"*



## General Objective

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- Expand specialists' knowledge in the management of patients with liver disease, taking into account the latest advances in the field of hepatology, in order to provide quality, safe care and to improve the prognosis of the disease

“

*Make the most of this opportunity and take the leap to get up-to-date on the latest developments in Hepatology”*





## Specific Objectives

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### Module 1. Diagnostic Methods and Research Techniques

- ◆ Identify the updated diagnostic criteria for liver diseases, and develop the correct differential diagnosis strategy
- ◆ Establish the pathogenic basis of liver diseases, incorporating the latest advances in the field of study
- ◆ Determine the treatment plan for the most prevalent, acute and chronic liver diseases
- ◆ Define the rationale, indications, limitations, and cost-effectiveness of diagnostic tests used in Hepatology
- ◆ Define invasive and non-invasive methods for diagnosing and quantifying fibrosis and its clinical applicability
- ◆ Explain the main laboratory techniques used in basic research
- ◆ Study the alteration of liver function tests in Primary Care

### Module 2. Viral Hepatitis

- ◆ Explain how to manage patients with chronic hepatitis undergoing antiviral treatment
- ◆ Describe the pathogenic basis of viral hepatitis, its diagnosis, and treatment
- ◆ Point out and analyze the surgical treatment options in the most frequent liver diseases and evaluate the risks and benefits

### Module 3. Autoimmune Hepatitis and Cholangitis

- ◆ Describe the clinical utility of MRI cholangiography

### Module 4. Alcoholic Liver Disease and Metabolic Hepatic Steatosis

- ◆ Describe the clinical manifestations, diagnosis, and treatment management of systemic diseases that involve the liver

### **Module 5. Hepatic Cirrhosis I**

- ♦ Address the imaging diagnosis of cirrhosis, portal hypertension, and hepatic vascular disease
- ♦ Characterize the natural history of liver cirrhosis its clinical and hemodynamic manifestations

### **Module 6. Hepatic Cirrhosis II**

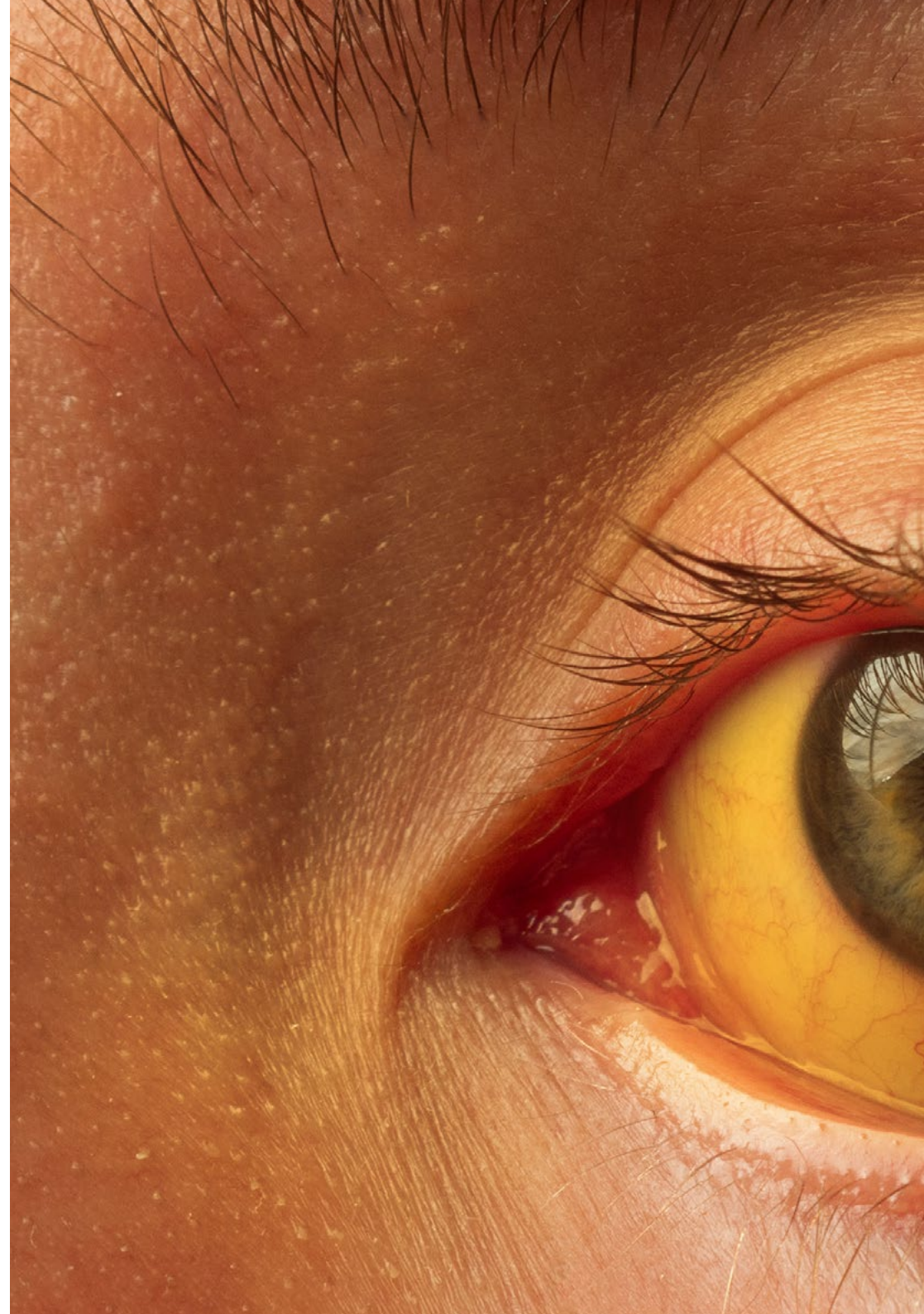
- ♦ Indicate recommended and unsafe drugs in hepatic cirrhosis, as well as dietary advice
- ♦ Address the management of complications of hepatic cirrhosis: ascites, infections, esophageal variceal bleeding and hepatic encephalopathy
- ♦ Describe the main problems associated with portal hypertension, as well as diagnosis and possible treatments

### **Module 7. Other Metabolic Liver Diseases**

- ♦ Develop the clinical manifestations, diagnosis, and treatment of metabolic liver diseases
- ♦ Establish the pathogenic basis of autoimmune liver disease, diagnostic criteria, and treatment

### **Module 8. Hepatic Tumors**

- ♦ Analyze hepatocellular carcinoma preventive strategies, staging and therapeutics
- ♦ Address the endoscopic management of neoplastic complications in the hepatopancreaticobiliary area
- ♦ Describe the epidemiology of hepatocarcinoma and its risk factors
- ♦ Analyze the different useful imaging techniques in the diagnosis of the main cholestatic diseases and the current treatment options
- ♦ Analyze the curative treatments for intermediate and advanced hepatocarcinoma





### **Module 9. Liver Transplant**

- ◆ Describe the principles for selecting liver transplant candidates, the surgical basis of transplantation, immunosuppressive drugs, and the short and long-term management of liver transplant patients
- ◆ Describe the principles for selecting candidates for pediatric liver transplantation and the short and long-term patient management
- ◆ Address the coordinated management of liver transplant patients in Primary Care

### **Module 10. Miscellaneous: Hepatic Vascular Diseases, Hepatotoxicity, Hepatic Diseases in Pregnancy**

- ◆ Highlight the impact of the immune system on liver disease
- ◆ Identify the main childhood liver diseases
- ◆ Address the diagnosis and treatment of the main hepatic diseases during pregnancy
- ◆ Develop a correct differential diagnosis strategy for liver diseases
- ◆ Inform the most frequent childhood liver problems and how they are treated

# 03 Skills

After passing the assessments of the Professional Master's Degree in Hepatology, physicians will have acquired the necessary professional skills for quality and up-to-date medical practice based on the latest scientific evidence.





“

*With this program, you will be able to master the new diagnostic and treatment procedures for patients with liver diseases”*



## General Skills

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- ♦ Possess and understand knowledge that provides a basis or opportunity to be original in the development and/or application of ideas, often in a research context
  - ♦ Know how to apply acquired knowledge and problem-solving skills in new or unfamiliar environments within broader (or multidisciplinary) contexts related to the area of study
  - ♦ Integrate knowledge and face the complexity of making judgements based on incomplete or limited information, including reflections on the social and ethical responsibilities linked to the application of their knowledge and judgements
  - ♦ Know how to communicate conclusions, knowledge, and supporting arguments to specialized and non-specialized audiences in a clear and unambiguous way
  - ♦ Acquire the learning skills that will enable further studying in a largely self-directed or autonomous manner
- ♦ Develop within the profession in terms of working with other health professionals, acquiring skills to work as a team
  - ♦ Recognize the need to maintain your professional skills and, keep them up to date, with special emphasis on autonomous and continuous learning of new information
  - ♦ Develop the capacity for critical analysis and research in your professional field



*Increase the quality of your medical practice by improving your skills in the care of patients with liver problems"*





## Specific Skills

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- Describe the pathogenic principles of liver diseases
- Identify the latest advances in the field of hepatology
- Develop a correct differential diagnosis strategy based on up-to-date diagnostic criteria for liver diseases
- Explain the treatment plan for the most prevalent acute liver diseases
- Explain the treatment plan for the most prevalent chronic liver diseases
- Identify the principles for selecting candidates for liver transplantation
- Determine the surgical principles of liver transplantation
- Differentiate the immunosuppressive drugs of choice in the treatment of liver diseases
- Address the short- and long-term management of patients with a liver allograft
- Describe the indications and limitations of diagnostic tests used in Hepatology
- Determine the cost-effectiveness of the diagnostic techniques used in different liver pathologies
- Understand the impact of the immune system on liver diseases
- Manage patients with chronic hepatitis undergoing antiviral treatment
- Identify the main childhood liver diseases
- Explain the diagnostic management of the main liver diseases during pregnancy
- Determine the treatment of choice for pregnant women with liver diseases
- Manage scientific databases for carrying out reviews and bibliographic searches of scientific studies
- Formulate, implement, and evaluate standards, action guides and protocols specific to the field of Hepatology
- Perform a critical and in-depth study on a topic of scientific interest in the field of Hepatology
- Communicate result findings after having analyzed, evaluated, and synthesized the data

# 04

# Course Management

In our commitment to offer elite education for all, TECH works with renowned professionals so that medical professionals acquire a solid knowledge in the specialty of hepatology. For this reason, this program has a team of highly qualified teachers, whose extensive experience in this field contributes to the quality of the program, which aims to provide students with the best tools to develop their skills during the course. In this way, students have the guaranteed competence required to specialize in the diagnosis, approach, and treatment of liver disease.





“

*Boost your academic career with leading professionals and acquire the knowledge and skills you need to thrive in the field of hepatology”*

## International Guest Director

Dr. Doan Y. Dao is an internationally recognized figure in the study and care of patients affected by Hepatitis B virus (HBV). As director of the Center of Excellence for Liver Disease in Vietnam (COE), he leads Johns Hopkins University's initiatives to help address the growing, urgent and significant disease burden of Liver Cancer caused by Hepatitis B in Vietnam.

As CEO, Dr. Dao is responsible for managing projects that contribute to the delivery of medical services to combat these diseases. This is an ongoing collaboration with the Johns Hopkins School of Medicine, where he also fosters scientific research and educational activities related to specialization in diagnosis and effective therapeutic treatments.

As a member of the Board of Directors of V-VHA (Vietnam Viral Hepatitis Alliance), he has played a crucial role in promoting clinical care and international scientific studies in HBV. In addition, he was co-chair of the National Task Force on Hepatitis B: Focus on Asian and Pacific Islander Americans, where he worked tirelessly to raise awareness of the condition.

He has received several awards throughout his career, such as the Hepatitis Fund for the Cure Postdoctoral Research Fellowship (2014), awarded by the American Liver Foundation; or the Asian Heritage Award in Public Health (2016), presented by the Asian Heritage Society of California. In addition, he was named Everyday Hero (2016) by the American Liver Foundation, thanks to his efforts in addressing Hepatitis B, both in the United States and Vietnam. His clinical training in Internal Medicine and Gastroenterology and Hepatology at UT Southwestern Medical Center in Dallas, Texas, along with his commitment to academic medicine, have allowed him to lead groundbreaking research in search of a cure for HBV.



## Dr. Dao, Doan Y

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- Director of the Center of Excellence for Liver Disease in Vietnam (COE) at the Johns Hopkins University School of Medicine
- Assistant Professor of Medicine, Division of Gastroenterology and Hepatology, at Johns Hopkins University School of Medicine
- Co-Chair of the National Task Force on Hepatitis B: Focus on Asian and Pacific Islander Americans
- Fellow in Internal Medicine, Gastroenterology and Hepatology at UT Southwestern Dallas Medical Center
- Medical Degree from UT Southwestern Medical Center at UT Southwestern Dallas
- Awards Received:
  - Hepatitis Fund for the Cure Postdoctoral Research Fellowship (2014), by the American Liver Foundation
  - Asian Heritage Award in Public Health (2016), by the Asian Heritage Society of California
  - Everyday Hero (2016) by the American Liver Foundation
- He is a member of:
  - V-VHA (Vietnam Viral Hepatitis Alliance).
  - Hepatitis B Foundation
  - Dallas Fort Worth (DFW) Hepatitis B Free

“

*Thanks to TECH, you will be able to learn with the best professionals in the world”*

## Management



### Dr. García Samaniego, Javier

- ♦ Head of the Hepatology Department, La Paz University Hospital, Madrid
- ♦ Group Leader and Lead Researcher of the Hepatic and Digestive Diseases at the La Paz University Hospital/IdiPAZ. CIBERehd of the Carlos III Health Institute, Madrid
- ♦ Trustee of the Biomedical Research Foundation of La Paz University Hospital and member of the Governing Council of IdiPAZ.
- ♦ Coordinator at the Alliance for the Elimination of Viral Hepatitis in Spain (AEHVE)
- ♦ He graduated in medicine from the University of Santiago in 1983 and obtained his PhD in 1996 from the Autonomous University of Madrid
- ♦ He has participated in numerous nationally and internationally funded research projects
- ♦ FIS and ANEP project evaluator
- ♦ He has been a member of the board of directors of the AEEH and of the Regional Ethics and Clinical Research Committee of the Community of Madrid
- ♦ He has participated in Guidelines and therapeutic protocols for viral hepatitis: consensus for the treatment of viral hepatitis in HIV-positive patients
- ♦ Coordinator for the Spanish Guidelines for the treatment of hepatitis B promoted by the AEEH (2020).
- ♦ Lead investigator in more than 60 international clinical trials on the treatment of viral hepatitis.
- ♦ Guest lecturer at numerous national and international congresses, as well as in Spanish and international forums, especially on the management of viral hepatitis B and C treatment. He has participated in the elaboration of the AEEH hepatitis C elimination document (2019) and is the coordinator of the hepatitis B treatment guidelines (2020)

## Professors

### Dr. Abadía, Marta

- ◆ Digestive System Specialist at CMED
- ◆ Attending in the Digestive System Department, La Paz University Hospital (May 2017-present)
- ◆ Digestive System Specialist, Residency at La Paz University Hospital (2013– 2017)
- ◆ Access by MIR exam (Position: 239)
- ◆ External rotation at the Hepatology and Liver Transplant Unit of the Clinic Institute of Digestive and Metabolic Diseases (Hospital Clinic de Barcelona)
- ◆ PhD from the Autonomous University of Madrid with outstanding mention CUMLAUDE for the thesis on "Non-invasive assessment of hepatic venous pressure gradient in patients with cirrhosis and portal hypertension following recovery from hepatitis C virus"
- ◆ EMILIO MOYANO Award for the best oral presentation at the XXVIII Jornada Nacional de Ecografía Digestiva (May 2017): "Two-dimensional hepatic elastometry, shear wave, in the assessment of clinically significant portal hypertension"
- ◆ Degree in Medicine. Navarra University, Faculty of Medicine, Spain (2006 - 2012)

### Dr. Andaluz, Irene

- ◆ Specialist in Digestive System Surgery at La Paz University Hospital, Madrid)
- ◆ Degree in Medicine from the Faculty of Medicine at the Complutense University of Madrid.
- ◆ Completion of the MIR Examination. Internal Medical Resident of the Digestive System at La Paz University Hospital
- ◆ Training Areas outside the Digestive System: Internal Medicine (5 months), COVID hospital ward (1 month), Emergency Department (1 month). Emergency Department on-call duty (2 years)
- ◆ Master's Degree in Clinical Reasoning and Practice, The University of Alcalá, Madrid
- ◆ III Edition Of The Master's Degree In Gastroenterological and Hepatobiliary Diseases, Distance University of Madrid (UDIMA) - December 2019 - Present
- ◆ VIII Edition of The Master's Degree in Hepatology, The University of Alcalá and The Autonomous University of Madrid - September 2020-present
- ◆ Associate Professor in the Digestive Ultrasound Courses J.M Segura Cabral in 2018, 2019 and 2020, La Paz La Paz, Madrid

**Dr. García Sánchez, Araceli**

- ◆ Specialist in General and Digestive System Surgery, Gregorio Marañón General University Hospital (Madrid)
- ◆ Resident Medical Intern of Gastroenterology and Hepatology, Gregorio Marañón General University Hospital, Madrid, 1997-2001
- ◆ Degree in Medicine and Surgery from the University of Navarra (1989-1995)
- ◆ Doctoral courses (32 credits) Department of Internal Medicine. Complutense University of Madrid
- ◆ Obtained the research sufficiency in September 2001 in the Department of Internal Medicine with the project: "Evaluation of the occurrence of non-organ-specific autoantibodies after liver transplantation and their implication in the occurrence of graft dysfunction and autoimmune diseases"

**Dr. Madejón Seiz, Antonio**

- ◆ Postdoctoral Researcher, Biomedical Research Networking Center (Centro de Investigación Biomédica en Red (CIBER))
- ◆ Training of medical personnel at drug addiction centers for early diagnosis and prison doctors to update strategies for the treatment approach to chronic hepatitis C in HIV mono- and co-infected patients"
- ◆ PhD in Biology, Autonomous University of Madrid, 1997
- ◆ Degree in Biology







### **Dr. Romero, Miriam**

- ◆ Doctor in Medicine and Surgery from the Complutense University of Madrid (1987-1993)
- ◆ FEA of Digestive System in Carlos III Hospital since January 2012 and since 2014 in La Paz University Hospital
- ◆ Member of the Clinical Research Ethics Committee of La Paz University Hospital from March 24, 2014 to present
- ◆ Belonging to the CIBEREHD research network whose lead researcher is Dr. Javier García-Samaniego
- ◆ Lecturer in the AIDS Master's Degree program in 2002. Taught two classes: "Other hepatobiliary manifestations" and "Diagnostic algorithms in the HIV+ patient; Digestive syndromes"
- ◆ MIR ACCESS: MIR selective tests 1993/1994, position 243
- ◆ Specialization in Digestive System (Gastroenterology and Hepatology) at the Gregorio Marañón General University Hospital. January 1994 - December 1997
- ◆ Master's Degree in Hepatology. University of Alcalá and Autonomous University of Madrid (June 2013) June 2014
- ◆ "Expert in Probability and Statistics in Medicine" belonging to the health program organized by the UNED in collaboration with the University-Business Foundation

05

# Structure and Content

The content structure has been designed by a team of professionals who recognise the implications of medical programs in treating patients with liver diseases, are aware of the relevance of current courses, and are committed to quality teaching using new educational technologies.

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*This Professional Master's Degree in Hepatology will allow you to expand your knowledge and improve the medical practice as you treat your patients"*

### Module 1. Diagnostic Methods and Research Techniques

- 1.1. Introduction to Diagnostic Methods: Hepatic Function and Prognoses
- 1.2. Hepatic Biopsy
- 1.3. Non-Invasive Methods for Assessing Hepatic Fibrosis
- 1.4. Diagnostic Imaging: Ultrasound, CT, MRI
- 1.5. Basic and Advanced Endoscopy
- 1.6. Introduction to Research Techniques in Hepatology
- 1.7. Animal and Cellular Models
- 1.8. Immunological Techniques
- 1.9. PCR Techniques: Conventional and Point-of-Diagnosis
- 1.10. Next-Generation Sequencing Techniques: NGS

### Module 2. Viral Hepatitis

- 2.1. Hepatitis A
- 2.2. Hepatitis B (Epi, Natural History and Diagnosis)
- 2.3. Hepatitis B (Treatment)
- 2.4. Hepatitis B (Special Populations)
- 2.5. Hepatitis D
- 2.6. Hepatitis C (Epi, Natural History and Diagnosis)
- 2.7. Hepatitis C (Treatment)
- 2.8. Hepatitis C (Special Populations)
- 2.9. Hepatitis E
- 2.10. Other Viral Hepatitis

### Module 3. Autoimmune Hepatitis and Cholangitis

- 3.1. AIH (Pathogenesis and Diagnostic Criteria)
- 3.2. AIH (Treatment)
- 3.3. AIH (Treatment in Non-Responders or Intolerant Patients)
- 3.4. AIH vs. DILI: Immune-Mediated Hepatitis

- 3.5. Intrahepatic and Extrahepatic Cholestasis: DDx
- 3.6. Primary Biliary Cholangitis (PBC): Pathogenesis and DDx
- 3.7. PBC: Treatment
- 3.8. Primary Sclerosing Cholangitis (PSC): Pathogenesis, Symptoms and Diagnosis
- 3.9. PSC (Treatment)
- 3.10. Overlap Syndromes

### Module 4. Alcoholic Liver Disease and Metabolic Hepatic Steatosis

- 4.1. Alcoholic Liver Disease (ALD): EPI, Natural History Clinical Manifestations
- 4.2. ALD: Diagnosis and Severity Assessment
- 4.3. Acute Hepatitis
- 4.4. Cirrhosis
- 4.5. Liver Transplantation in ALD
- 4.6. Metabolic Hepatic Steatosis (MetHS): Definition, EPI and Natural History
- 4.7. MetHS: Pathogenesis and Role of the Intestinal Microbiota
- 4.8. MetHS: Diagnosis
- 4.9. MetHS: Treatment
- 4.10. Liver Cancer and Transplantation in MetHS

### Module 5. Hepatic Cirrhosis I

- 5.1. Definition, Pathophysiology Natural History
- 5.2. Clinical Manifestations and Prognostic Models
- 5.3. Compensated and Decompensated Cirrhosis
- 5.4. Use of Medication in Patients with Cirrhosis
- 5.5. Nutrition in Cirrhosis
- 5.6. Portal Hypertension
- 5.7. Ascites
- 5.8. Renal Failure in Cirrhosis: Classification, Diagnosis and Biomarkers
- 5.9. Treatment of Renal Insufficiency and Hepatorenal Syndrome
- 5.10. The Role of Albumin in the Treatment of Patients with Cirrhosis

## Module 6. Hepatic Cirrhosis II

- 6.1. Upper Gastrointestinal Bleeding (UGIB) Secondary to Portal Hypertension
- 6.2. TIPS: Current Indications
- 6.3. Hepatic Encephalopathy (HE): Concept, Pathogenesis and Symptoms: Minimum HE
- 6.4. HE: Treatment
- 6.5. Pulmonary Pathology in Cirrhosis: Hepatopulmonary Syndrome
- 6.6. Pulmonary Pathology in Cirrhosis: Portopulmonary Hypertension
- 6.7. Acute-on-Chronic Hepatic Failure
- 6.8. Cirrhotic Cardiomyopathy
- 6.9. Spontaneous Bacterial Peritonitis
- 6.10. Other Infections in Patients with Cirrhosis

## Module 7. Other Metabolic Liver Diseases

- 7.1. Hemochromatosis: EPI and Clinical Manifestations
- 7.2. Hemochromatosis: DDX and Treatment
- 7.3. Non-HFE Hemochromatosis
- 7.4. Hepatic Porphyrin
- 7.5. Wilson's Disease: EPI and Clinical Manifestations
- 7.6. Wilson's Disease: Diagnosis
- 7.7. Wilson Disease: Treatment
- 7.8. Alpha-1 Antitrypsin Deficiency
- 7.9. LPAC
- 7.10. Glycogenesis

## Module 8. Liver Tumors

- 8.1. Epidemiology, Risk Factors and Screening for Hepatocellular Carcinoma
- 8.2. Diagnosis, Prognostic Evaluation and Staging of HCC
- 8.3. Hepatic Resection of HCC
- 8.4. Ablative HCC Treatments
- 8.5. Transarterial HCC Treatments

- 8.6. Liver Transplantation and HCC
- 8.7. Systemic Treatment and HCC: Basic Concepts, Immunotherapy and Antiangiogenesis
- 8.8. Future Perspectives in HCC Management
- 8.9. Cholangiocarcinoma
- 8.10. Benign Hepatic Tumors

## Module 9. Liver Transplant

- 9.1. Indications, Patient Selection, and Waiting List Management
- 9.2. Expansion of Liver Transplant Criteria. Organ Preservation Strategies
- 9.3. Severe Acute Liver Failure
- 9.4. Liver Transplant Surgery
- 9.5. Infections and Liver Transplantation
- 9.6. Immunosuppression in Liver Transplantation Acute and Chronic Rejection
- 9.7. Biliary Complications
- 9.8. Long-Term Management of Transplant Patients
- 9.9. Hepatocarcinoma and De Novo Tumors after Liver Transplantation
- 9.10. Survival in Liver Transplantation. Factors Associated with Early and Late Mortality

## Module 10. Miscellaneous: Hepatic Vascular Diseases, Hepatotoxicity, Hepatic Disease in Pregnancy

- 10.1. Non-Cirrhotic Portal Hypertension
- 10.2. Budd-Chiari Syndrome
- 10.3. Portal Vein Thrombosis in Cirrhosis Patients
- 10.4. Portal Vein Thrombosis in Non-Cirrhosis Patients
- 10.5. Sinusoidal Obstruction Syndrome
- 10.6. DILI (Drug-Induced Liver Injury)
- 10.7. Surgical Risk Assessment in Cirrhosis Patients
- 10.8. Fontan-Associated Liver Disease
- 10.9. Hepatic Diseases in Pregnancy (I)
- 10.10. Hepatic Diseases in Pregnancy (II)

06

# 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.



“

*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.



“

*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.



# 07 Certificate

This Professional Master's Degree in Hepatology guarantees students, in addition to the most rigorous and up-to-date education, access to a Professional Master's Degree issued by TECH Technological University.





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

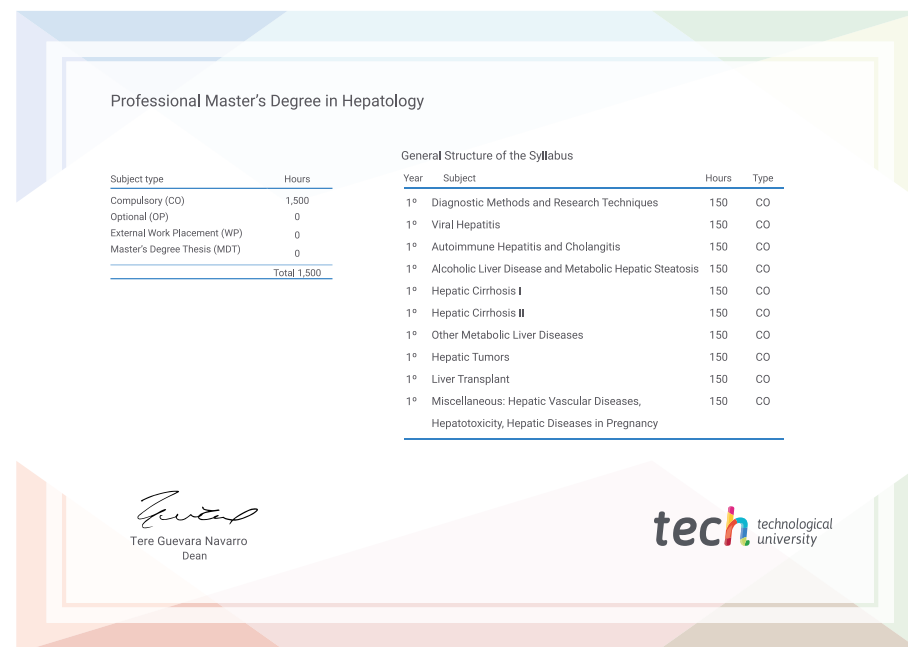
This **Professional Master's Degree in Hepatology** contains the most complete and up-to-date scientific program on the market.

After the student has passed the assessments, they will receive their corresponding **Professional Master's Degree** issued by **TECH Technological University** via tracked delivery\*.

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

Title: **Professional Master's Degree in Hepatology**

Official N° of hours: **1,500 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.





## Professional Master's Degree Hepatology

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

# Professional Master's Degree

## Hepatology

