MASTER IN PHARMACEUTICAL MARKETING

Main Language of Instruction:
French ☑ English ○ Arabic ○

Campus Where the Program Is Offered: CSM

OBJECTIVES

- Understand the basics of operational and strategic marketing for application in the pharmaceutical sector.
- Conduct a marketing study and create marketing study programs.
- Enhance skills in interpreting results and making decisions in marketing.

PROGRAM LEARNING OUTCOMES (COMPETENCIES)

- **Acquire** essential theoretical and methodological foundations for marketing in the health and care product industry, aligned with current market realities.
- **Understand** stakeholders and challenges in this sector, including pharmacoeconomics and marketing tools.
- **Deepen** practical application of knowledge for commercial decision-making and navigate marketing challenges within the broader business management context.
- **Learn** to formulate recommendations to address specific marketing issues, including developing and executing marketing plans, communication strategies, and launching new products and services.

ADMISSION REQUIREMENTS

Admissions to the first year of the Master in Pharmaceutical Marketing are subject to the following conditions:

Candidates may be granted equivalence for a specified number of credits based on their prior educational qualifications; however, the credits recognized from the foundational common training shall not exceed 45 credits.

a) Candidates holding a Doctor of Pharmacy degree are considered to have completed 45 credits of the first year (M1). They must complete an additional 15 credits from Master 1 (Module 1).

b) Students currently enrolled in the Faculty of Pharmacy at USJ may register starting in the 9th semester of their program. They must complete the 15 credits of Master 1 (Module 1). However, they will only be permitted to enroll in the second year of the master's program (M2) after obtaining their Doctor of Pharmacy degree.

c) Candidates holding a degree in medicine or odontology are deemed to have completed a specific number of M1 credits based on their foundational training. The USJ Equivalence Committee will determine the exact number upon the Faculty of Pharmacy's recommendation, and any remaining credits will be validated as prerequisites.

d) Students currently enrolled in medicine or odontology programs may register for Module 1 of the M1 starting from the 9th semester of their program, provided they have fulfilled the prerequisite established based on the courses offered in their home faculty. The USJ Equivalence Committee will evaluate this prerequisite upon reviewing students' application file.

COURSES/CREDITS GRANTED BY EQUIVALENCE

Candidates holding a Doctor of Pharmacy degree are considered to have completed 45 credits of the first year (M1).

PROGRAM REQUIREMENTS

120 credits: Required Courses (120 Cr.)

Required Courses (120 Cr.)

Human Anatomy and Physiology I (4 Cr.). Human Anatomy and Physiology II (5 Cr.). English (4 Cr.). Metabolic Biochemistry (4 Cr.). Cellular Biology + Practical Work (3 Cr.). Biophysics + Practical Work (3 Cr.). Communication and Leadership (2 Cr.). Fundamental Marketing Concepts (15 Cr.). Finance and Epidemiology (13 Cr.). Management and Accounting (2 Cr.). Pharmaceutical Legislation (2 Cr.). Marketing (2 Cr.). Strategic Marketing (15 Cr.). Thesis (Professional Project) (10 Cr.). Special Microbiology (4 Cr.). Pharmaceutical Formulation (4 Cr.). Pharmaceutical Formulation (4 Cr.). General Pharmacology (4 Cr.). Marketing Intelligence and Clinical Studies (20 Cr.).

SUGGESTED STUDY PLAN

Semester 1

Code	Course Name	Credits
004ANHUI3	Human Anatomy and Physiology I	4
004ANPHI2	Human Anatomy and Physiology II	5
004AGI3I3	English	4
004BIOMS2	Metabolic Biochemistry	4
004BIOLI1	Cellular Biology + Practical Work	3
004BIPHI3	Biophysics + Practical Work	3
004COBMM2	Fundamental Marketing Concepts	15
004GESTS5	Management and Accounting	2
004LEPHS5	Pharmaceutical Legislation	2
004MARKS5	Marketing	2
004MIBOS3	Special Microbiology	4
004PHAGS3	Pharmaceutical Formulation I	4
004PAGAS1	Pharmaceutical Formulation II	4
004PHAMS1	General Pharmacology	4
	Total	**60**

Semester 2

Code	Course Name	Credits
004LCOMM2	Communication and Leadership	2
004FIEPM2	Finance and Epidemiology	13
004MASTM2	Strategic Marketing	15
	Total	**30**

Semester 3

Code	Course Name	Credits
004ETCLM2	Marketing Intelligence and Clinical Studies	20
	Total	**20**

Semester 4

Code	Course Name	Credits
004MEPRM2	Thesis (Professional Project)	10
	Total	**10**

COURSE DESCRIPTION

004ANHUI3 Human Anatomy and Physiology I 4 Cr.

This course provides students with a solid understanding of the human body, offering a foundational knowledge of the relationship between structure and function, essential for careers in health sciences.

- Anatomy: The study of the body's structure and how its parts are interconnected.
- Physiology: The functioning of the body's systems to sustain life. Relevant clinical cases are introduced to highlight normal body functions.

Competency Framework:
C.3.1. Assess the patient's pharmacological and biological condition.
RAP3.1.1. Assess the patient's medical history, lab tests, and diagnostic results.
This course aims to understand the body as a dynamic system of interrelated parts, rather than isolated units.

004ANPHI2 Human Anatomy and Physiology II 5 Cr.

This course provides students with a solid understanding of the human body, offering a foundational knowledge of the relationship between structure and function, essential for careers in health sciences.

- Anatomy: The study of the body's structure and how its parts are interconnected.
- Physiology: The functioning of the body's systems to sustain life. Relevant clinical cases are introduced to highlight normal body functions.

Competency Framework:
C.3.1. Assess the patient's pharmacological and biological condition.
RAP3.1.1. Assess the patient's medical history, lab tests, and diagnostic results.
This course aims to understand the body as a dynamic system of interrelated parts, rather than isolated units.

004AGI3I3 English 4 Cr.

This course provides students with a deep understanding of language proficiency.

004BIOMS2 Metabolic Biochemistry 4 Cr.

The first part of this course covers enzymology, enabling students to analyze enzyme mechanisms in biology, identify appropriate kinetic models, understand inhibition and activation, and explore their applications in pharmacy and metabolic biochemistry.
The second part covers catabolic and anabolic reactions in major metabolic pathways (carbohydrates, lipids, amino acids, nucleic acids). It details the energy balance of essential metabolic processes for humans, the mechanisms of regulation and homeostasis, and their pathophysiological implications. The course also enables students to recognize key inherited metabolic disorders and major metabolic diseases, along with their causes.

004BIOLI1 Cellular Biology + Practical Work 3 Cr.

This course is divided into nine chapters, each covering a key aspect of cell biology, which is essential to understanding living systems. The first chapter introduces the main classes of biological macromolecules: carbohydrates, lipids, proteins, and nucleic acids. The second chapter compares the similarities and differences between cell types (eukaryotic, prokaryotic, and acaryotic). Chapter 3 explores cell membranes, while chapter four focuses on the extracellular matrix. Chapter 5 examines the eukaryotic cell nucleus, the cell cycle, and its molecular regulation. Chapter 6 discusses the intracellular membrane network, including the smooth and rough endoplasmic reticulum, Golgi apparatus, lysosomes, and vacuoles. Chapter 7 covers the cytoskeleton (microtubules, microfilaments, and intermediate filaments). Chapter 8 explains how mitochondria and chloroplasts convert energy, along with the function of peroxisomes as oxidative organelles. Finally, chapter nine explores apoptosis, examining both intracellular and extracellular pathways of programmed cell death.

004BIPHI3 Biophysics + Practical Work 3 Cr.

This course applies the principles and laws of physics to interpret and explain the biological phenomena occurring in the human body, which is essential for students in medical sciences. It covers the electrochemical properties of aqueous ionic solutions and their applications in ionophores, as well as the concepts of acid-base balance in the

human body, including buffer systems, regulation, and disorders. Additionally, it introduces the fundamentals of electromagnetic radiation interactions with matter, dosimetry, and radiotherapy, supported by practical work to illustrate these concepts.

004LCOMM2 Communication and Leadership 2 Cr.

This course trains students to be competent communicators, capable of engaging with all sectors of the healthcare industry.

004COBMM2 Fundamental Marketing Concepts 15 Cr.

This course trains students to master general marketing terminology and tools, understand its areas of application, and extrapolate these concepts to apply them in pharmaceutical marketing.

004FIEPM2 Finance and Epidemiology 13 Cr.

The purpose of this course is to introduce the basic elements of epidemiology in community health and clinical research. This course aims to highlight the interest of epidemiological surveys in measuring and describing current and new population health problems. The principles of clinical epidemiology and biostatistics will be applied in the critical reading of articles.

004GESTS5 Management and Accounting 2 Cr.

This course introduces the essential characteristics, objectives, and economic role of businesses, as well as their structure.
It aims to:
- Understand the fundamentals of accounting as a management tool for businesses.
- Familiarize with banking and various financial instruments.
- Learn about different forms of businesses.
- Comprehend the purchasing and selling system.

004LEPHS5 Pharmaceutical Legislation 2 Cr.

This course is aimed at pharmacy students to clarify the primary purpose of the profession: protecting patient health. It emphasizes several key principles: the pharmacist operates as an independent professional and is subject to regulations that define practice conditions to ensure patient and medication safety.
This course highlights the professional culture of pharmacists, who view medications as healthcare products, patients as individuals requiring care, and themselves as the only experts on medications. This perspective contrasts sharply with a mercantilist approach that treats health as a business, viewing medications as consumer goods, patients as customers, and pharmacists as mere salespeople.

004MARKS5 Marketing 2 Cr.

This course trains students to develop sound and truthful judgments about everything presented in the market, all within a framework of total ethics.
This course aims to:
- Understand the purpose of logistics and pharmaceutical marketing.
- Learn about the organization and operation of the pharmaceutical industry.
- Learn the fundamentals of pharmaceutical marketing and various marketing management styles.

004MASTM2 Strategic Marketing 15 Cr.

This course aims to:
- Equip students to develop short-, medium-, and long-term marketing plans by mastering marketing techniques specific to the pharmaceutical sector.
- Enable students to identify the challenges and marketing strategies employed by companies in the pharmaceutical industry.

004MEPRM2 Thesis (Professional Project) 10 Cr.

This course aims to apply theoretical concepts in a practical marketing project for a pharmaceutical company. It focuses on providing precise solutions to operational and strategic project challenges.

004MIBOS3 Special Microbiology 4 Cr.

This course introduces infectious pathologies of bacterial origin in humans, whether strictly human or zoonotic. It contributes to the development of the following competencies:

- Identify different pathogenic bacteria in humans and recognize the clinical signs of the infections they cause.
- Gain initial skills in identifying bacteria responsible for infections and their sensitivity to antibiotics.
- Understand various antibiotic treatments appropriate for each infection based on factors such as location and age.
- Acquire essential knowledge for differential diagnosis with viral infections to provide effective advice to patients in a pharmacy setting.

004PHAGS3 Pharmaceutical Formulation I 4 Cr.

This course aims to formulate and manufacture unconventional pharmaceutical forms, innovative formulations, and developing forms for various routes of administration. It also covers biopharmaceuticals.
Connections to Program Learning Outcomes (PLO):

- Develop a pharmaceutical product within a team.
- Participate in the manufacturing of a pharmaceutical product.
- Ensure quality control of pharmaceutical products according to standards.
- Inform, promote, and respond to healthcare professionals' inquiries within marketing and regulatory affairs teams.

004PAGAS1 Pharmaceutical Formulation II 4 Cr.

This course focuses on formulating, manufacturing, and controlling pharmaceutical dosage forms.

004PHAMS1 General Pharmacology 4 Cr.

This course defines and clarifies the fundamental concepts of general pharmacology, enabling students to acquire the necessary knowledge to understand the basics of pharmacokinetics and pharmacodynamics of medications.
The course consists of three main parts:

- The first part covers the pharmacological development of drugs, outlining the various stages involved in experimental and clinical research.
- The second part focuses on pharmacokinetics, examining the four fundamental phases that determine the fate of a drug in the body: absorption, distribution, biotransformation, and elimination.
- The third part discusses pharmacodynamics, exploring the study of receptors and the mechanisms of action of medications within the body. This section also addresses drug interactions and the variability in individual sensitivity to medications.

The teaching methods employed in this course include lectures and practical work sessions (TPC).

004ETCLM2 Marketing Intelligence and Clinical Studies 20 Cr.

This course prepares students to anticipate and forecast the threats and opportunities present in the marketing environment.