

UNIVERSITY DIPLOMA IN HEALTH INFORMATION ANALYSIS

Main Language of Instruction:

French ☐ English ☒ Arabic ☐

Campus Where the Program Is Offered: CSM

OBJECTIVES

The University Diploma in Health Information Analysis integrates advanced analytical approaches with strategic decision-making processes to equip participants with competencies in data-driven healthcare management. The program is designed to strengthen participants' abilities in the collection, management, processing, analysis, and interpretation of health information data, transforming raw data into meaningful and actionable insights that support evidence-based decision-making at the executive and organizational levels.

PROGRAM LEARNING OUTCOMES (COMPETENCIES)

- Understand the principles and functions of health information systems and their role in healthcare management and decision-making.
- Collect, manage, validate, and analyze health data from clinical, administrative, and public health sources.
- Transform health data into meaningful information and performance indicators to support evidence-based decision-making.
- Use digital tools and analytical technologies for data processing, reporting, visualization, and health information management.
- Develop analytical reports, dashboards, and decision-support tools for healthcare organizations and public health institutions.
- Ensure the ethical, secure, and confidential management of health information in accordance with professional and regulatory standards.

ADMISSION REQUIREMENTS

Admission to the University Diploma offered at the Institute of Public Health follows the USJ requirements. The diploma is designed for healthcare and public health professionals interested in health information management, data analysis, and evidence-based decision-making. Basic knowledge of computer applications, data handling, and statistics are recommended. Preference may be given to candidates with professional experience in healthcare institutions, public health organizations, or health-related administrative and technical functions.

PROGRAM REQUIREMENTS

20 Credits: Required Courses (20 credits)

Required Courses (20 Cr.)

Introduction to the Healthcare System (1 Cr.), Advanced Excel (2 Cr.), Professional Ethics and Fraud Detection (1 Cr.), Biostatistics (3 Cr.), Analysis of a Healthcare System and Management of Care Outcomes (1 Cr.), Health Data Acquisition and Management (2 Cr.), Coding Systems (2 Cr.), Epidemiology (1 Cr.), Business Intelligence Tools (1 Cr.), Using Data to Solve Problems (2 Cr.), Using Data to Tell the Story (2 Cr.), Case Study (2 Cr.)



COURSE DESCRIPTION

496IDSSP2	Introduction to the Healthcare System	1 Cr.
This course provides an overview of the structure, organization, and functioning of healthcare systems, with a focus on key actors, service delivery models, and financing mechanisms. Participants will gain an understanding of how healthcare systems are organized and how information flows support planning, management, and decision-making. The course also highlights the role of health information in evaluating system performance and improving healthcare delivery.		
496EXNAP3	Advanced Excel	2 Cr.
This course develops participants' practical skills in using Microsoft Excel for health data management and analysis. Participants will learn how to organize, clean, and structure datasets, apply essential formulas and functions, and use tables, charts, and pivot tables to analyze and visualize health information. The course emphasizes the use of Excel as a practical tool to support reporting, performance monitoring, and data-driven decision-making in healthcare settings.		
496EPDFP2	Professional Ethics and Fraud Detection	1 Cr.
This course introduces participants to the principles of ethics in health information management, with a focus on data privacy, confidentiality, and responsible use of health data. It also addresses the identification and prevention of fraud, errors, and misuse within health information and reporting systems. Participants will learn how to apply ethical standards and analytical approaches to detect inconsistencies and support integrity, transparency, and accountability in healthcare data systems.		
496BIOAF2	Biostatistics	3 Cr.
This course introduces participants to the fundamental principles and applications of biostatistics in healthcare and public health. Participants will develop the ability to organize, analyze, interpret, and present health-related data using statistical methods and tools to support research, healthcare evaluation, and evidence-based decision-making. The course also emphasizes the practical use of statistical techniques for understanding health indicators, trends, and outcomes in healthcare settings.		
496ASSGP2	Analysis of the Healthcare System and Management of Care Outcomes	1 Cr.
This course equips participants with the knowledge and tools required to evaluate quality of care, measure patient and professional satisfaction, and contribute to population health improvement. Participants will develop an understanding of healthcare quality concepts and learn to apply appropriate evaluation methods and performance measurement tools to assess the outcomes and effectiveness of healthcare systems and services.		
496AISMP2	Health Data Acquisition and Management	2 Cr.
This course develops the ability to understand and navigate health data structures and efficiently retrieve relevant information to address healthcare problems and support decision-making. Participants will explore the different types and sources of healthcare data and learn methods for selecting, preparing, querying, managing, and transforming health data into meaningful and actionable information.		
496CDISP2	Coding Systems	2 Cr.
This course provides an overview of international medical coding classifications and healthcare billing systems used worldwide, with particular emphasis on Lebanese coding systems for diseases, procedures, prostheses, and related healthcare services. Participants will learn how to select and apply medical codes according to coding standards and billing methodologies, while developing an understanding of the structure, purpose, and importance of coding systems and guidelines, and their impact on healthcare management, reimbursement, and health data analysis.		

496EPIDP2	Epidemiology	1 Cr.
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This course provides an introduction to the basic principles and methods of epidemiology and their application in public health and healthcare settings. Participants will learn how to describe and analyze the distribution and determinants of health and disease in populations, interpret epidemiological indicators, and use epidemiological evidence to support decision-making, surveillance, and health planning.

496ONASP3	Business Intelligence Tools	1 Cr.
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This course introduces participants to the principles and applications of business intelligence (BI) tools in healthcare environments. Participants will learn how to use BI platforms to collect, integrate, analyze, and visualize health data in order to generate meaningful insights. The course emphasizes the development of dashboards, reports, and performance indicators to support evidence-based decision-making and improve healthcare management and outcomes.

496UISPP3	Using Data to Solve Problems	2 Cr.
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This course introduces participants to a structured, problem-solving approach using data to support decision-making in healthcare settings. Participants will learn how to define problems, identify relevant data sources, analyze and interpret data, and translate findings into actionable solutions. The course emphasizes critical thinking and practical application of data analysis to address real-world healthcare challenges and improve organizational performance.

496ISRHP3	Using Data to Tell the Story	2 Cr.
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This course develops participants' ability to communicate health data effectively by transforming analytical results into clear, meaningful, and compelling narratives. Participants will learn how to interpret data insights, design visualizations, and structure reports that support understanding and decision-making. The course emphasizes data storytelling techniques to translate complex health information into accessible messages for healthcare managers, clinicians, and policymakers.

496PPECP3	Case Study	2 Cr.
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This course is based on applied case studies that allow participants to integrate and mobilize their knowledge in health information analysis to solve real-world healthcare problems. Participants will analyze practical situations, interpret health data, and propose evidence-based solutions related to healthcare management, performance evaluation, and decision-making. The course emphasizes critical thinking, synthesis of knowledge, and practical application of analytical tools in authentic healthcare contexts.