



## **Sebha University**

### **Master of healthcare management**

#### **Course Overview**

Master Degrees prepare students to apply advanced knowledge for professional practice, further learning corresponding to level 10 qualifications.

The Master of Healthcare management course is designed for clinicians, managers and administrators who wish to up skill in areas of leadership and management, quality and safety, health economics, health policy, health systems as well as planning and evaluating health services as well as experience an introduction to research in the discipline. Students gain practical leadership and management skills that can be translated to the workplace, allowing them to lead and manage high performing teams in the healthcare environment. This course focuses on practical ways that students can approach challenging issues that are associated with the complexity of a modern health care environment and how to manage relationships with other service providers, consumers and policy makers. With academics that are actively working within the health care industry and collaborating with key industry partners both internationally and nationally, students have access to real life experience and research.

**Vision**

To be a leading department in the region that produces graduate and qualified leaders in the area of health and hospital administration who can make appropriate health decision making in solving health care issues and problems

**Mission**

To facilitate health care institutions, in both public and private sectors, with qualified health decision makers who can conduct scientific research and contribute to meet health needs of the population.

**The Course Objectives**

- 1 - Acquire skills necessary to prosper in the increasingly competitive health care field.
- 2- To understand healthcare delivery systems.
- 3-To acquire and practice leadership and managerial skills that will positively affect performance as a healthcare manager.

## Study Plan (Master of Healthcare Management)

### Program Structure and Organisation

Seq.	Module Name	Module code	ECTS Credits	Prerequisites-descriptions	Teaching Saff
1	Introduction to Health Economics and Health Management (SAHA Course)	HM901	8	None	Dr. Mohammed Aboulqasim
2	Healthcare Management (SAHA Course)	HM902	8	None	Dr. Abdlrhman Alsonosi
3	Bio Statistic	HM903	8	None	Dr. Hafid Amhmed
4	Health Management Information system	HM904	8	None	Dr. Hasan Alkhadafe
5	Healthcare Economic (SAHA Course)	HM905	8	None	Dr. Mousbah Ahmouda
6	Research Methodology	Hr900	8	None	Dr. Mohamed Erhayem
7	Managerial Accounting	HM906	8	None	Dr. Alsunousi Albahloul
8	Telemedicine (SAHA Course)	HM907	8	HM904	Dr. Tajdida Magayr
9	Performance Management (SAHA Course)	HM908	8	HM901, HM902, HM906	Dr. Salem Alfagira
10	Business Development (SAHA Course)	HM909	8	None	Dr. Abdelmenam Shebah
11	Dissertation/ Thesis	HM910	16	Permission	
Total of Credits			96		

## COURSE DESCRIPTION

### HM 904: HEALTH MANAGEMENT INFORMATION SYSTEM

**Level: Master**

**Credits ECST**

**Location: ON Campus**

**Term: 1**

**Department: Healthcare Management**

**Academic Year: 2023 - 2024**

**Description:** Provides a broad overview of healthcare information systems with emphasis on historical foundations, current issues, and industry pressures pushing modernization and increased sophistication in the use of technology. Major topics include an overview of healthcare use of information technology, medical informatics, public health informatics, information technology infrastructure, ethics in computing, computer security, consumer informatics, clinical software, computing in clinical education, research computing, health information exchange, and the future of healthcare computing

#### OBJECTIVES

1- Interpret healthcare industry challenges that have put healthcare IT and informatics into the national agenda; Design strategies and initiatives to respond to these challenges

2-Assess and compare public health initiatives requiring data collection, data analysis, and data visualization; recommend how efforts should be synchronized and integrated with clinical computing and workflows

3-Contrast and compare consumer and medical informatics; recommend how new types of software and data exchange between clinicians and patients can impact clinical care and outcomes

4-Assess how modern computing and networks have created new risks and vulnerabilities; evaluate examples of IT issues impacted by ethics in the clinical care, research, and education areas

5-Summarize what the secondary use of EHR data is and provide examples on how clinical data can be used to support research and improve the quality of care

### **Learning outcomes**

Participants will learn about health information, be able to use it in health management and become skilled in using tools for analyzing it.

### **Topic**

- The principles of an action-led, district based information system
- Calculation of target populations for a given catchment population
- Audits of existing information systems at district level
- Development of goals, targets and indicators for district level programmers
- Calculation of different types of indicators using local data
- Presentation of information in the form of tables and draw graphs
- Analyse indicators for trends over time and compare different facilities and districts
- Provision of feedback to data collectors and community structures
- Using the computer to enter data and getting basic feedback

Current debates on topics of health management

## HM 906: Managerial Accounting

Level: Master

Credits ECST

Location: ON Campus

Term: 1

Department: Healthcare Management

Academic Year: 2023 - 2024

Description: This course covers some main topics related to the use of accounting information for

managerial decision-making. These topics include cost-volume-profit analysis, incremental analysis, capital investments, and budgeting

### OBJECTIVES

- 1-To enhance the abilities of learners to develop the concept of management accounting and its significance in the business
- 2- To enhance the abilities of learners to analyze the financial statements
- 3- To enable the learners to understand, develop and apply the techniques of management accounting in the financial decision making in the business corporates
- 4- To make the students develop competence with their usage in managerial decision making and control

Learning outcomes

- 1- Analyze and explain key managerial accounting concepts and principles.
- 2- Analyze and record business transactions common to the manufacture of inventory in Job order costing systems
- 3-Recall how to budget efficiently and measure performance by analyzing standard costs
- 4- identify joint allocation principles and effective decision making skills for accounting managers

5- Recognize the basics of attaching products to services, process costing and activity based costing

**Topic**

- 1: What Is Managerial Accounting
- 2: How Is Job Costing Used to Track Production Costs
- 3: How Does an Organization Use Activity-Based Costing to Allocate Overhead Costs
- 4: How Is Process Costing Used to Track Production Costs
- 5: How Do Organizations Identify Cost Behavior Patterns
- 6: How Is Cost-Volume-Profit Analysis Used for Decision Making
- 7: How Are Relevant Revenues and Costs Used to Make Decisions
- 8: How Is Capital Budgeting Used to Make Decisions
- 9: How Are Operating Budgets Created
- 10: How Do Managers Evaluate Performance Using Cost Variance Analysis
- 11: How Do Managers Evaluate Performance in Decentralized Organizations
- 12: How Is the Statement of Cash Flows Prepared and Used

## HM 903: Bio Statistics

**Level: Master**

**Credits ECST**

**Location: ON Campus**

**Term: 1**

**Department: Healthcare Management**

**Academic Year: 2023 - 2024**

**Description:** The purpose of this course will be to provide advanced undergraduate and graduate students a solid background in the core concepts of applied biological statistics, the use of the software R for data analysis, and the use of Markdown for documenting reproducible analyses. The course will review basic statistical concepts, thoroughly cover contemporary linear regression and analysis of variance (ANOVA), and introduce the advanced concepts of generalized linear models (GLMs) such as logistic regression and mixed effect models. Students will work together on small group projects, and also develop an independent project to practice these methods or to begin using more advanced approaches

### **OBJECTIVES**

- 1-To apply the scientific method and hypothesis testing to experimental design
- 2-To implement appropriate experimental designs to biological investigation
- 3-To assess experimental results with appropriate statistical test
- 4- To interpret statistical output, both biologically and statistically
- 5- To present results of experimental designs using computer software packages
6. To differentiate among the variety of experimental designs and successfully apply an appropriate statistical test
- 7-Data science & reproducible research

### **Learning outcomes**

- 1-define the principal concepts about biostatistics
- 2- recognize the definition of statistics, its subject and its relation with the other sciences
- 3- restate the principal concepts about biostatistics
- 4- collect data relating to variable/variables which will be examined and calculate descriptive statistics from these data
- 5-identify data relating to variable/variables
- 6-identify convenient sample by using sampling theory
- 7-identify distribution form relating to the variable/variables
- 8- recognize the binomial distribution

### **Topic**

1. Data and data types (categorical, ordinal, quantitative, etc)
2. Descriptive statistics (mean, standard deviation, median, quartiles, frequency, relative frequency) and graphs (bar chart, histogram, scatterplot, boxplots, run charts, etc)
3. Using statistical software
4. Statistical inference (populations, random samples and the probability relationship between them)
5. Probability distributions (binomial and normal), what they represent and how they are used
6. Confidence intervals as a method of statistical inference and the role of the central limit theorem
7. Hypothesis tests as a method of statistical inference, the 5 steps in hypothesis testing
8. t-procedures for statistical inference on means and mean differences
9. Chi-square procedures for statistical inference on associations between categorical variables
10. Statistical power and sample size in relation to one sample and difference between two sample confidence intervals and hypothesis tests only
11. Correlation and multiple regression models and associated confidence intervals and hypothesis tests
12. Nonparametric alternatives to t-procedures

## 901 Introduction to health economic and health management

### **Course Description:**

This module introduces key economic concepts in relation to healthcare. It promotes an understanding of the essential economic principles and their application in health. The module starts by considering the healthcare market and the cost of delivering healthcare.

### **Course Learning Outcomes:**

1. Demonstrate their understanding of the basic economic concepts and their application to healthcare
2. Analyze the economic approach to resource allocation in the health sector  
Discuss specific features that distinguish demands and supply for health care from demand and supply for other goods and services  
When moved on to consider the healthcare sector performance and redesign

### **Major Course Topics:**

- 1-Terms and definitions in health economics, including scarcity, opportunity cost, efficiency and equity
- 2- Demand and supply in healthcare
- 3- Cost of delivering health services
- 4- Basic market models and the markets for healthcare services
- 5- Market failure and government
- 6- Allocative efficiency and priority setting
- 7- Performance of the healthcare sector
- 8- Economic tools in the analysis of the market for healthcare
- 9- Economics for health sector reform

## **908 Performance Management**

### **Course Description:**

This course aims to understand the importance of Performance Management in business and how it can contribute to measure the level of strategy implementation towards results of a company or institution. Students will therefore obtain a basic understanding about the critical aspects, when developing a performance management & measurement system. Topics include the control function of management, Management control alternatives and their effects, Financial results control systems, Performance measurement issues and their effects, Performance measurement and the balanced scorecard, Strategy maps, Creating performance measures.

### **Course learning outcomes:**

1. Understand the importance of Performance Management in business
2. Measure the level of strategy implementation towards results of a company or institution. Understand the critical aspects, when developing a performance management & measurement system. The focus will especially be driven on the Determining technique of the balanced scorecard (BSC), which combines financial and non-financial ratios to an integrated framework of strategic leadership and controlling.

### **Major Course Topics:**

1. The control function of management
2. Management control alternatives and their effects
3. Financial results control systems
4. Performance measurement issues and their effects
5. Performance measurement and the balanced scorecard
6. Strategy maps
7. Creating performance measures

## **Hr 900 Research Methodology**

### **Course Description:**

This course will provide the students with the basics of research and a broad introduction to the methodological foundations and tools to make research. The course covers the basics of research methodology for graduate level students and introduces the language of research, ethical principles and challenges, and the elements of the research process within quantitative, qualitative, and mixed methods approaches. Participants will use theoretical aspects to begin to critically review literature relevant to their field of interests. Students will learn how to identify problems to study, develop hypotheses and research questions, specify independent and dependent variables, check for the validity and reliability of studies and design research projects. They will be exposed to a broad range of designs used in their researches from laboratory and field experiments, surveys, content analysis, focus groups and in-depth interviewing

### **Course Learning Outcomes:**

1. Describe the use of statistical software and other tools in data analysis for contrast, compare methods of collecting and analyzing data.
  2. Define the research process and its importance to furthering knowledge in the field of healthcare management.
  3. Explain the range of qualitative, quantitative, and mixed methods research methodologies available, including their strengths and limitations.
  4. Illustrate a research proposal addressing a healthcare problem.
- Evaluate ethical research practices and principles in healthcare research.

Major Course Topics:

1. Introduction to Healthcare Research
2. Planning and Preparing for Research
3. Reviewing Literature and Proper Citation
4. Quantitative Study Approaches: Observational Studies
5. Experimental Studies and Correlational Studies
6. Qualitative and Mixed Methods Research Methodologies
7. Ethical Considerations
8. Designing the Study
9. Collecting Primary Data
10. Secondary and Tertiary Data
11. Managing and Analysing Data
12. Software and Other Tools Used in Healthcare Research
13. Article Structure
14. Disseminating Research

