Higher Institute of Business Administration Course Syllabus

Fourth and Fifth Years

Operation and Information Management Specialization

Course Assessment Criteria

Course Assessment Criteria:
Student performance will be evaluated on a combination of examinations, exercises and classroom participation as follows.

Component	Contribution
Work Grade (attendance & participation, assignments, presentations, interviews, etc.)	20% Set by the course Instructor at the beginning of the course
Quiz	20%
Final Exam	60%
Total	100%

The grade of each part of the above-mentioned is estimated at 100 by the instructor, the final grade will be calculated by the students affairs directorate.

STUDENT CONDUCT

- During class, your cell phone must be set to SILENT (not vibrate) or turned OFF.
- No electronic device, laptops and tablets may be used in class except with the instructor's permission.

Decisions Theory

Academic Department: Operations and Information Management
Semester and Year: Second/ Fourth
Weight: 2

Course Description:
Decision theory deals with methods for determining the optimal course of action when a number of alternatives are available and their consequences cannot be forecast with certainty. This course will use quantitative methods (models) for problem solving and decision making. Theories and models to be covered include probability theory, utility theory and game theory, linear programming models, and nonlinear programming models.

Course Objectives:

A. Learn theories and practices of decision making.
B. be better prepared to face future challenges of decision making as an individual, in groups, and in organizations.

Student Learning Outcomes:

1. Understanding the foundations of decision theory and its evolution to date.
2. Understanding of the rationality principles of decision making.
3. Ability to develop prescriptive models of choices under uncertainty.
4. Understanding of the interplay between decision theory and game theory.
5. Understanding the relation between descriptive and normative modeling.
6. Awareness of the possible impact of biases and heuristics for decision analysis.

Course Material:
The academic material will be made available to the student by the course lecturer at the beginning of the semester.
Supplemental Material:
Abbas, A. E. (2018) Foundations of Multiattribute Utility. Cambridge University Press. Cambridge, UK.

Important Notes:
Aspects of the course schedule may be changed at the lecturer's discretion to reflect course improvements.

Course Outline

Sessions	Topic
1	Introduction
2-3	Understanding the elements of the Decision Matrix
4	Decisions under ignorance or uncertainty
5	Decision under risk
6	Utility
7	The Philosophy of Probability
8	Bayesianism
9	Risk Aversion
10	Game Theory

11	Social Choice Theory
12	General review of the course

International Business Management

Academic Department: Human Resources Management
Semester and Year: Second/ Fourth
Weight: 2

Course Description:
International business concerns all the commercial transactions that take place between two or more countries. The best modes of operation in an international context may not be the same as those of the purely domestic business environment. International business involves activities such as exporting and importing, dealing with foreign governments, cultures and regulations, as well as domestic regulations affecting those firms who seek to do business outside their home country.
This course introduces students to the practices of doing business in today's global environment. The course begins with an overview of the Globalization phenomenon and the key differences that characterized the various countries of the Globe. Then, students will be introduced to trends affecting the global trade and investment environment as well as the strategy and structure of international business.

Course Objectives:
A. Provide student with a thorough grounding in international business management in a changeable global economy.
B. Equip student with the skills and knowledge needed to become a flexible, effective manager who can spot market opportunities and drive businesses forward, to success in the international arena.

Student Learning Outcomes:
1. Understand the basic theories and frameworks in international business at the levels of both the country and the firm.
2. Understand the differences across country markets and their importance to the firm.
3. Assess positive and negative circumstances affecting the internationalization of firm activities.
4. Solve practical real-life problems in the context of international business management, both individually and through team work
5. Evaluate the important public policy issues relating to international business.

Course Material:
The academic material will be made available to the student by the course lecturer at the beginning of the semester.
Supplemental Material:
Hill, Charles; Hult, Tomas; Wickramasekera, Rumintha; MacKenzie, Kim & Gordon, Cameron (2019) Global Business Today: Asia Pacific Perspective [5th Edition]. McGraw Hill Education.

Important Notes:
Aspects of the course schedule may be changed at the lecturer's discretion to reflect course improvements.

Course Outline

Sessions	Topic
1	Introduction
2	Globalization of Markets and the Internationalization of the Firm

3	Organizational Participants
4	The Cultural Environment of International Business (Emerging Markets, Developing Economies, and Advance Economies)
5	Theories of International Trade and Investment
6	The International Monetary and Financial Environment
7	Strategic and Organization in the International Firm
8	Global Market Opportunity Assessment
9	Exporting and Countertrade
10	Foreign Direct Investment and Collaborative Ventures
11	Licensing, Franchising, and Other Contractual Strategies
12	General review of the course

Quality Management

Academic Department: Human Resources Management
Semester and Year: Second/ Fourth
Weight: 2

Course Description:
Total Quality Management (TQM) is a comprehensive and fundamental rule or belief for leading and operating an organization, aimed at continually improving performance over the long term by focusing on customers while addressing the needs of all stakeholders. It is both a philosophy and a set of guiding principles that represent the foundation of a continuously improving organization. The bottom line of TQM is results: increased productivity, efficiency, customer satisfaction, and world-class performance. This course will present the various TQM frameworks, concepts, and quality improvement tools necessary for implementing the quality culture that characterizes world-class organizations.

Course Objectives:
A. Give students a general idea about how to improve quality of goods and services.
B. Ensure that students know tools of Quality Management.

Student Learning Outcomes:
1. Implement the principles and concepts inherent in a Total Quality Management (TQM) approach to managing an organization.
2. Understand the philosophies--including similarities and differences--of the gurus of TQM in order to better evaluate TQM implementation proposals offered by quality management organizations and consultants.
3. Successfully implement process improvement teams trained to use the various quality tools for identifying appropriate process improvements.
4. Develop a strategy for implementing TQM in an organization.

Course Material:
The academic material will be made available to the student by the course lecturer at the beginning of the semester.
Supplemental Material:
Goetsch, David L., Davis, Stanley B. (2013). Quality Management for Organizational Excellence: Introduction to Total Quality, 7thedition, Pearson, Inc (ISBN- 978-0132558983).

Important Notes:
Aspects of the course schedule may be changed at the lecturer's discretion to reflect course improvements.

Course Outline

Sessions	Topic
1	Introduction to Quality Management (QM)
2	Quality as a Strategic Decision & Customer Focus
3	Satisfaction and Customer Delight, Handling Customer Complaints
4	Quality Control Tools
5	Statistical Quality Control

6	Productivity
7	Supplier Relations
8	Quality Management System
9	Benchmarking
10	Employee Involvement and Team Building
11	Quality Awards
12	General review of the course

Project Management

Academic Department: Operations and Information Management
Semester and Year: First/ Fourth
Weight: 2

Course Description:
Project Management is one of the most critical elements in the competitiveness and growth of organizations. Projects are the drivers of innovation and change and no organization can survive today without projects.
Effective leaders in today's leading companies must be effective project managers. Furthermore, almost every business graduate may sooner or later be asked to manage a project. This course presents the classical foundations of project management and introduces students to the world of real-life project problems. Upon completion of this course, students will understand the basic concepts and critical factors of initiating, planning, organizing, controlling, and running a project. They will be able to develop a project plan, build a project team and adapt their project management style to the unique project characteristics.

Course Objectives:
Differentiate organizational principles that support project management and apply this to the efficient management of projects in a quality project management system based on the classic project lifecycle.

Student Learning Outcomes:
1. Recognize issues in a realistic project scenario.
2. Employ work breakdown structures (WBS) in a project application.
3. Demonstrate the use of appropriate network scheduling techniques.
4. Produce a project proposal.
5. Discuss the implementation of a proposed plan

Course Material:
The academic material will be made available to the student by the course lecturer at the beginning of the semester.
Supplemental Material:
Harvard Business Review Project Management Handbook: How to Launch, Lead, and Sponsor Successful Projects (HBR Handbooks) (October 19, 2021) by Antonio Nieto-Rodriguez (Author)

Important Notes:
Aspects of the course schedule may be changed at the lecturer's discretion to reflect course improvements.

Course Outline

Sessions	Topic
1	Introduction (Project Management Growth: Concepts and Definitions)
2	Organizing and Staffing the Project Office and Team
3	Management Of Your Time and Stress
4	Network Scheduling Techniques
5	Project Graphics
6	Pricing and Cost Control

7	Trade-Off Analysis in a Project Environment
8	Risk Management
9	Learning Curves
10	Contract Management
11	Quality Management
12	General review of the course

Strategic Management

Academic Department: Human Resources Management
Semester and Year: First/ Fourth
Weight: 2

Course Description:
This course introduces the key concepts, tools, and principles of strategy formulation and competitive analysis. It is concerned with managerial decisions and actions that affect the performance and survival of business enterprises. The course is focused on the information, analyses, organizational processes, and skills and business judgment managers must use to devise strategies, position their businesses, define firm boundaries and maximize long-term profits in the face of uncertainty and competition.

Course Objectives:

A. Enable student to explain how decisions are made in an organization.
B. Formulate ways to carry out the controlling function in organizations to describe the contents of a company's strategic management audit report.

Student Learning Outcomes:

1. Analyze the main structural features of an industry and develop strategies that position the firm most favorably in relation to competition and influence industry structure to enhance industry attractiveness.
2. Recognize the different stages of industry evolution and recommend strategies appropriate to each stage.
3. Appraise the resources and capabilities of the firm in terms of their ability to confer sustainable competitive advantage and formulate strategies that leverage a firm’s core competencies
4. Demonstrate understanding of the concept of competitive advantage and its sources and the ability to recognize it in real-world scenarios.
5. Distinguish the two primary types of competitive advantage: cost and differentiation and formulate strategies to create a cost and/or a differentiation advantage.
6. Analyze dynamics in competitive rivalry including competitive action and response, first-mover advantage, co-opetition and winner-take-all and make appropriate recommendations for acting both proactively and defensively.
7. Formulate strategies for exploiting international business opportunities including foreign entry strategies and international location of production.
8. Make recommendations for vertical changes in the boundary of the firm based on an understanding of the advantages of vertical integration and outsourcing and the factors that determine the relative efficiency of each.
9. Make recommendations for horizontal changes in the boundary of the firm based on an understanding of the conditions under which diversification creates value.
10. Demonstrate the ability to think critically in relation to a particular problem, situation or strategic decision through real-world scenarios.
11. Recognize strategic decisions that present ethical challenges and make appropriate recommendations for ethical decision-making.

Course Material:
The academic material will be made available to the student by the course lecturer at the beginning of the semester.
Supplemental Material:
Textbook. Grant, R. and Jordan, J. 2012. Foundations of Strategy. NY: John Wiley &Sons, Ltd.

Important Notes:
Aspects of the course schedule may be changed at the lecturer's discretion to reflect course improvements.

Course Outline

Sessions	Topic
1	Introduction
2	Strategy Formulation & Mission Statement Analysis
3	Corporate Governance and Social Responsibility
4	Environmental Scanning; Industry Analysis
5	Internal Scanning; Organizational Analysis
6	Strategy Formulation: Business level Strategy
7	Strategy Formulation: Corporate level Strategy
8	Strategy Formulation: Functional Strategy & Strategic Choice
9	Strategy Implementation: Organizing for Action
10	Strategy Implementation: Staffing and Leading
11	Evaluation and Control
12	General review of the course

Contemporary Economic Issues

Academic Department: Basic and Associate Sciences
Semester and Year: First/ Fourth
Weight: 2

Course Description:
This course is primarily concerned with contemporary economic issues at the domestic, regional and international levels. Specific topics are chosen from current and recent policy debates. Specifically, it will emphasize current economic subjects such as poverty and welfare, economic growth and development, inflation, energy prices, climate changes and environmental pollution. Students will be encouraged to use economic theory to evaluate present events. Students will learn to read and construct basic theories and diagrams that explain and illustrate economic phenomena.

Course Objectives:
The main objective of this course is to augment the students' comprehension of the various contemporary economic issues which arise in the world, and analyze their negative and positive effects on the Syrian community.

Student Learning Outcomes:
1. introduce the main current issues in the world of economics.
2. Students will understand the linkages and interactions in many macroeconomic and microeconomics variables.
3. Understanding issues in social policy such as the poverty and welfare topics and their effects on economy and society.
4. Explore several international issues and their internally and externally interactions such as the energy prices, the environment and the climate change, government deficit and foreign debt and economic growth and development.

Course Material:
The academic material will be made available to the student by the course lecturer at the beginning of the semester.
Supplemental Material:
Introduction to Modern Economic Growth Hardcover – Illustrated, 23 Jan. 2009 by Daron Acemoglu (Author).

Important Notes:
Aspects of the course schedule may be changed at the lecturer's discretion to reflect course improvements.

Course Outline

Sessions	Topic
1	Introduction
2	Individuals, Society and Government
3	Efficient Markets and Government
4	Market Failures, Public Goods, and Externalities
5	Economics of environment
6	Economic inequality

7	Energy Prices
8	Stability and Instability of an Economic System
9	International Debt
10	Global Inflation
11	Current international issues
12	General review of the course

Programming languages and algorithms

Academic Department: Operations and Information Management
Semester and Year: First/ Fourth
Weight: 3

Course Description:
Programming languages are one of the most important and direct tools for the construction of a computer system. Programming language is important because it defines the relationship, semantics and grammar which allows the programmers to effectively communicate with the machines that they program.

Course Objectives:
The purpose of this course is to study fundamentals concepts in programming languages and major tools and techniques to implement them.

Student Learning Outcomes:
1. Apply design principles and concepts to algorithm design
2. Classify programming languages.
3. Compare and contrast information exchange methods between program units in different programming languages.
4. Select an appropriate programming language that uses the least resources for solving a computation problem.
5. Investigate different paradigms used for a particular programming language.

Course Material:
The academic material will be made available to the student by the course lecturer at the beginning of the semester.
Supplemental Material:
Introduction to Programming Languages by Arvind Bansal, Publisher: CRC Press. First Edition, Dec. 2013, ISBN: 978-1466565142

Important Notes:
Aspects of the course schedule may be changed at the lecturer's discretion to reflect course improvements.

Course Outline

Sessions	Topic
1	Introduction
2-3	Principles of computing and programming
4-5	principles and concepts to algorithm design
6-7	Semantic analysis
9-10-11	The concepts of programming in C#
12	General review of the course

E-commerce and E-business

Academic Department: Operations and Information Management
Semester and Year: First/ Fourth
Weight: 3

Course Description:
The Internet has changed the way companies carry out their businesses. This course describes the basic principles of e-business technologies. Upon the completion of this course, students should have a good working knowledge of e-business concepts, applications and technologies (e.g. e-business infrastructure, technology required for e-business, e-business marketplace, e-Commerce, B2B e-business, e-business strategy, e-procurement, customer relationship management and service implementation and optimization).

Course Objectives:

A. Introduce concepts, tools and approaches to e-Commerce and electronic business.
B. Help students to develop skills to manage businesses in the digital world.

Student Learning Outcomes:

1. Recognize the e-business concepts and how it is different from e-commerce.
2. Recognize the e-business models and infrastructure. Students will learn how e-business concepts are applied to different fields.
3. Analyze the potential impacts of different e-Business strategies; the ability to evaluate the effects of business issues in relation to various e-Business models.
4. Be aware of the e-Business environment, the identification of contemporary e-Business issues, and the evaluation of their implications for organizations.

Course Material:
The academic material will be made available to the student by the course lecturer at the beginning of the semester.
Supplemental Material:
Electronic Business and Electronic Commerce Management, 2nd edition, Dave Chaffey, Prentice Hall, 2006

Important Notes:
Aspects of the course schedule may be changed at the lecturer's discretion to reflect course improvements.

Course Outline

Sessions	Topic
1	Introduction
3-2	Market place Analysis for E- Commerce
4	inter and intra organizational business processes
5	Making Functional Areas E-Business Enabled: E-Procurement, E-marketing, E-Selling, E-Supply Chain Management
6-7	Technologies for E-Business: Internet, Web based system, Security and payment systems and Supply chain integration technologies (EDI, Sensors, IoT, GPS, GIS, Web services and cloud)

8	Decision Support in E-Business: Web analytics
9	Decision Support in E-Business: Auctions
11-10	Decision Support in E-Business: Recommender systems
12	General review of the course

Models in Industrial Economics

Academic Department: Operations and Information Management
Semester and Year: First/ Fourth
Weight: 3

Course Description:
This course provides an introduction to current theory and empirical work in Industrial economics. It starts by examining the internal structure of firms. It then moves on to the analysis of various aspects of strategic interaction between firms and the determinants of industrial structure. Finally, it discusses the role of policy in the context of competition and industrial policies and regulation. The emphasis will be throughout on understanding how the theoretical tools can be used to analyze real world issues.

Course Objectives:

A. Provide students with the analytical skills required for understanding problems in industrial economics.
B. Analyze various aspects of strategic interaction between firms and the determinants of industrial structure.

Student Learning Outcomes:

1. Understand how price and non-price competition among firms affect economic welfare.
2. Analyze and evaluate models of competitive, oligopolistic, and monopoly markets.
3. Analyze and evaluate how firms' structure and conduct affect economic welfare.

Course Material:
The academic material will be made available to the student by the course lecturer at the beginning of the semester.

Supplemental Material:
Industrial Organization: A Strategic Approach (Management & Organizations S.) Paperback – 2000 by Jeffrey R. Church, Roger Ware.

Important Notes:
Aspects of the course schedule may be changed at the lecturer's discretion to reflect course improvements.

Course Outline

Sessions	Topic
1	Introduction
2	Theory of the firm
3	Separation of ownership and control
4	Games and Strategies
5	Short-run price competition
6	Dynamic price competition
7	Product differentiation and non-price competition
8	Price discrimination
9	Vertical restraints
10	Horizontal Mergers

11	The determinants of market structure
12	General review of the course

Methodologies for Systems Analysis and Design

Academic Department: Operations and Information Management
Semester and Year: Second/ Fourth
Weight: 3

Course Description:
This course describes modern methods of information system analysis and design for organizations with IT resources. It introduces the discovery process for system feasibility, describes stakeholder analysis, and covers requirements analysis. The course covers most of the fundamental system architectures, as well as approaches to detailed design.

Course Objectives:
The main objective of this course is to teach students a comprehensive, balanced and up-to-date coverage of traditional and the object-oriented approach to systems analysis and design.

Student Learning Outcomes:

1. Understand concepts relating to different types of information systems.
2. Explain the purpose and activities of the systems development life cycle phases.
3. Identify and understand system inputs and outputs.
4. Understand and model system entities and data stores.
5. Understand and model system processes, events, and data flows within a system.
6. Understand and model classes of data within a system.
7. Understand concepts relating to various models, tools, and techniques used in system analysis and design.

Course Material:
The academic material will be made available to the student by the course lecturer at the beginning of the semester.
Supplemental Material:
Systems Analysis and Design: An Object-Oriented Approach Dennis, Wixom, & Tegarden 5th Edition, 2015. ISBN-13: 978-1118804674 ISBN-10: 1118804678

Important Notes:
Aspects of the course schedule may be changed at the lecturer's discretion to reflect course improvements.

Course Outline

Sessions	Topic
1	Introduction
2	Rapic Application Development (RAD)—Phased, Prototyping
3-4	Agile—Scrum, Extreme Programming (XP), Lean, Kanaban, Scaled Agile Framework (SAFe)
5	Trade-offs and selecting a suitable development methodology
6	Tools of Project Management
7	Project estimation techniques
8	System and Requirements Analysis

9	Modeling with UML
10	System Architectures
11	Object-Oriented Designs
12	General review of the course

Production Management

Academic Department: Operations and Information Management
Semester and Year: Second/ Fourth
Weight: 3

Course Description:
Production management is the management of an organization's production systems, which converts inputs into the product and services. A production system takes inputs which include material, personnel, machines, building, technology, cash money, information and other resources whereas the outputs include the product and services. Thus, production management is the study of planning, designing, and production systems and subsystems to achieve the goals of an organization.

Course Objectives:
Prepare students to enter the work place with a professional level of competence and knowledge of the tools necessary to be successful in production management.

Student Learning Outcomes:
1. Explain the strategic importance, functions and productivity of manufacturing and service processes in a supply chain.
2. Develop forecasts for a company's products.
3. Analyze and solve decision problems using decision making approaches under uncertain and risky conditions.
4. Identify and recommend an appropriate capacity management approach under changing demand.
5. Interpret the nature of inventory costs.
6. Examine manufacturing layouts and design a balanced an assembly line for a product.
7. Apply simulation to model waiting lines in manufacturing and service operations.

Course Material:
The academic material will be made available to the student by the course lecturer at the beginning of the semester.
Supplemental Material:
Production Management: Advanced Models, Tools, and Applications for Pull Systems 1st Edition by Yacob Khojasteh, 2017.

Important Notes:
Aspects of the course schedule may be changed at the lecturer's discretion to reflect course improvements.

Course Outline

Sessions	Topic
1	Introduction
2	Plant Location and Facility Layout
3	Cost Profit Volume or Break Even Analysis
4	Aggregate Production Planning MRP ERP
5	Capacity Planning

6	Work Study and Measurement
7	In Bound and Out Bound Logistics
8	Theory of Constraints
9	Control Function in Production Management
10	Scheduling and Sequencing
11	Measurement in Production System
12	General review of the course

Advanced Models in Operation Researches

Academic Department: Operations and Information Management
Semester and Year: Second/ Fourth
Weight: 3

Course Description:
The course will cover techniques for solving and analyzing models used in operations research. The main focus will be on solution techniques and on analysis of the basic mathematical structures of these models. The course will also focus on effective modeling techniques, the use of modeling languages such as AMPL, and the use of commercial solvers.

Course Objectives:

A. Improving the ability to prove mathematical data with utmost accuracy.
B. Developing knowledge of the mathematical structures of the most commonly used models.
C. Deepen understanding by using modeling languages to express and solve optimization models.

Student Learning Outcomes:

1. The ability to analyze the structure and mathematical modeling of various complex systems found in industrial applications.
2. The ability to use operations research models in various situations and problems in companies.

Course Material:
The academic material will be made available to the student by the course lecturer at the beginning of the semester.

Supplemental Material:
Operations Research Models and Methods Hardcover – Illustrated, 2008 by Paul A. Jensen.

Important Notes:
Aspects of the course schedule may be changed at the lecturer's discretion to reflect course improvements.

Course Outline

Sessions	Topic
1	Introduction
2	Network Models
3	Minimum Spanning Tree
4	Shortest-Path Problems Maximum-Flow Problems
5	PERT-CPM
6-7	Dynamic Programming
8-9	Inventory Models
10-11	Queuing Theory
12	General review of the course

E-management

Academic Department: Operations and Information Management
Semester and Year: First/ Fifth
Weight: 2

Course Description:
This course will provide overview of e-business. It covers many topics in e-business, including basic knowledge of e-business and the related information technology, e-business models, e-Payment and e-stock. this course also includes the understanding to unbundling the corporation and the implementation of e-business in practice.

Course Objectives:

A. Students are expected to understand recent developments in e-Business and be able to employ e-Business strategically to enhance business processes.
B. Students will learn how to apply skills and knowledge in planning and designing a business-to-business (B2B) or business-to-consumer (B2C) e-Business.

Student Learning Outcomes:

1. Identify the main e-Business Models.
2. understanding how Internet security, privacy, and intellectual property issues impact online business activities
3. Specify the requirements for starting an online business.
4. Apply e -business concepts to different fields, such as: education, banking, tourism

Course Material:
materials will be available to the student by the instructor
Supplemental Material:
E-Management @ Work: The Internet and the Office Productivity Revolution, 2002 by Godefroy Beauvallet, Michael Ballé

Important Notes:
Aspects of the course schedule may be changed at the lecturer's discretion to reflect course improvements.

Course Outline

Sessions	Topic
1	Introduction
2-3	E-Business models
4-5	applications
6-7	E-Business design tools
8	E- Business environment.
9	E- Business Infrastructure
10-11	E- business service implementations
12	General review of the course

Economic feasibility studies

Academic Department: Financial and Banking Management
Semester and Year: First/ Fifth
Weight: 3

Course Description:
A typical feasibility study consists of a number or related studies. It starts with the marketing study to ascertain whether there is a market, how large it is, and how to reach it. Following is a technical study to determine, among other things, facility location, appropriate technology, capacity, and availability of qualified workforce. Also, a financial study to determine the financial viability of the project and the appropriate capital structure is needed. In addition, a legal, organizational, and environmental and national impact studies are conducted.

Course Objectives:

A. The purpose of this course is to introduce students to how feasibility studies are conceived, conducted, and appraised.
B. This course develops a student's ability to undertake complex feasibility studies. Students will learn these skills and techniques through performing various feasibility studies of differing size and complexity.

Student Learning Outcomes:

1. Understand concepts, principles, and steps of feasibility studies.
2. Realize the aspects of Marketing, Technical, Financing and Financial feasibility studies.
3. Understand the different methods of projects appraisal from private sector point of view.
4. Analyze and evaluate the concepts and steps of doing feasibility studies.
5. Recognize when and why the proposed projects will be accepted or rejected according to private sector point of view.
6. Develop the ability to self-appraise and reflect on practice relevant to commercial projects feasibility studies.
7. Develop appropriate effective written and oral communication skills relevant to feasibility studies.

Course Material:
materials will be available to the student by the instructor
Supplemental Material:
PCH Publication (Ed), "Feasibility Study Preparation and Analysis Book", PCH Publications, USA, 2011.

Important Notes:
Aspects of the course schedule may be changed at the lecturer's discretion to reflect course improvements.

Course Outline

Sessions	Topic
1	Introduction
2	The concept of the economic project and its forms
3	Investment concept

4	Feasibility study components
5	Factors to be considered when preparing a feasibility study
6	Estimating project costs
7-8	Estimating cash flows
9-10	Funding sources
11	Feasibility assessment methods
12	General review of the course

Organization Theories and Regulation

Academic Department: Human Resources Management
Semester and Year: First/ Fifth
Weight: 3

Course Description:
Course explores how to think about and practice organizing in complex workplace environments. It also offers various conceptual tools and theoretical frameworks to systematically investigate organizing processes and contexts and solve practical problems.

Course Objectives:

A. The course introduces the complex relationship between an organization's design (architecture/structure), behavior, and performance. It emphasizes the dependence of this relationship on company strategy, technology, size, and other contingencies.
B. The course urges students to think critically about the organization in its entirety, relating different functions to the overall strategy of the organization and emphasizing the role of human resources.

Student Learning Outcomes:

1. Explain the building blocks of organization theory and design, and link them to organizational challenges in the environment.
2. Contrast different strategic processes to attain organizational goals and anticipate their impact on organizational design.
3. Compare the strengths and weaknesses of various organizational structural forms.
4. Examine how different organizational designs and structures respond to different characteristics of the external environment.
5. Evaluate the nature of organizational culture and values, and their impact on organization's strategy and structure.
6. Compare different types of change in organizations, and assess their impact on organizational design.
7. Appraise several models of decision making in organizations.
8. Identify the different sources and types of conflict, and the use of power and political tactics to reduce conflict in organizations.

Course Material:
materials will be available to the student by the instructor
Supplemental Material:
Daft, R. L., & Armstrong, A. (2015). Organization theory & design. (3rd Canadian ed.). Toronto, ON: Nelson. ISBN: 978-0-17-653220-8

Important Notes:
Aspects of the course schedule may be changed at the lecturer's discretion to reflect course improvements.

Course Outline

Sessions	Topic
1	Introduction
2	Strategy, Organizational Design, and Effectiveness

3	Fundamentals of Organizational Structure
4	The External Environment
5	Inter-organizational Relationships
6	Manufacturing and Service Technologies
7-8	Organizational Culture
9	Innovation and Change
10	Decision Making
11	Designing Organizations for International Environments
12	General review of the course

Knowledge management and expert systems

Academic Department: Operations and Information Management
Semester and Year: First/ Fifth
Weight: 3

Course Description:
The course deals with knowledge bases, inference engine mechanisms, methods of representing ambiguous knowledge, and floating logic and using them to build floating expert systems that contribute to solving real problems.

Course Objectives:

A. Estimate the nature of expertise and Expert Systems technology.
B. Provide awareness of the various ways of representing and reasoning with knowledge and the practicalities of eliciting it.

Student Learning Outcomes:

1. Explain the role of data, information, and databases in organizations.
2. Explain basic issues of data retention, including the need for retention and physical storage.
3. Write SQL scripts to create databases and tables and to specify constraints.
4. Formulate and test SQL queries and statements for data insertion, deletion, and update.
5. Describe the concepts of the Entity-Relationship data model, including entity, relationship, attribute, and constraints.
6. Describe the common components of database systems and their basic functions.
7. Explain the concepts of security, backup, and recovery.

Course Material:
materials will be available to the student by the instructor
Supplemental Material:

- Expert Systems: The Technology of Knowledge Management and Decision Making for the 21st Century 1st Edition by Cornelius T. Leondes, 2001
- The Handbook of Applied Expert Systems Edited ByJay Liebowitz, 1997.

Important Notes:
Aspects of the course schedule may be changed at the lecturer's discretion to reflect course improvements.

Course Outline

Sessions	Topic
1	Introduction
2	Types of applications of Expert Systems
3	relationship of Expert Systems to Artificial Intelligence and to Knowledge-Based Systems.
4	Handling of uncertainties.
5-6	An analysis of some classic expert systems.
7	Deep expert systems.
8	Co-operating expert systems and the blackboard model.

9	Methodologies for building expert systems
10	representation and evaluation
11	Knowledge Engineering tools
12	General review of the course

Econometric Models

Academic Department: Operations and Information Management
Semester and Year: First/ Fifth
Weight: 3

Course Description:
The course deals with the use of some standard methods to estimate and analyze advanced economic models and includes studying the problems of formulating models and measuring variables.

Course Objectives:

A. Provide an overview of what econometrics is about, and develop some "intuition" about how things work.
B. Emphasis on understanding the tools of econometrics and applying them in practice.

Student Learning Outcomes:

1. Strengthen understanding of linear algebra and mathematical statistics that are the foundation for econometric analysis.
2. Understand the importance of a proper link between econometric analysis and economic theory
3. Master the foundations of the classical general linear regression model
4. Gain proficiency in the use of statistical/econometric software

Course Material:
materials will be available to the student by the instructor
Supplemental Material:
W.H. Greene, Econometric Analysis, 7th. ed., Upper Saddle River, NJ: Pearson Education (Prentice-Hall), 2012

Important Notes:
Aspects of the course schedule may be changed at the lecturer's discretion to reflect course improvements.

Course Outline

Sessions	Topic
1	Introduction
2	Review of Statistical Concepts
3-4	The Simple Linear Regression Model
5-6	The General Linear Regression Model
7	Non-linear effects in Regression models
8	Assessing Regression Models
9	Stationary time series
10	Trends
11	Spurious regression
12	General review of the course

Advanced Database Management Systems

Academic Department: Operations and Information Management
Semester and Year: First/ Fifth
Weight: 3

Course Description:
This course focuses on research and applications in advanced database systems for Cloud and Big Data Computing. It provides an opportunity to learn about Cloud Computing and Advanced Database Systems and apply that learning on a popular cloud platform.

Course Objectives:

A. Take a deep dive into how modern database systems function internally, from studying their high-level design to understanding the underlying data structures and algorithms used for efficient data processing.
B. The course covers a range of data management techniques from both commercial systems and cutting-edge research literature, enabling students to apply these techniques to other fields of computer science.

Student Learning Outcomes:

1. Describe how database management systems function internally.
2. Implement major components of a database management system and analyses their performance.
3. Analyze and compare the fundamental query evaluation and concurrency control algorithms. Identify strengths and weaknesses of query evaluation plans.
4. Identify trade-offs among database systems techniques and contrast distributed/parallel techniques for OLTP and OLAP workloads.

Course Material:
materials will be available to the student by the instructor
Supplemental Material:
Damji, J., Lee, D., Wenig, B., & Das, T. (2020). Learning Spark: lightning-fast big data analysis (2nd ed.) O'Reilly Media, Inc

Important Notes:
Aspects of the course schedule may be changed at the lecturer's discretion to reflect course improvements.

Course Outline

Sessions	Topic
1	Introduction
2	Storage
3	Indexing
4	Write-optimized data structures
5	Query evaluation
6	Query optimization
7	Transaction management

8	Distributed database systems
9	Data warehousing and decision support
10	Stream processing systems, data streaming algorithms
11	Scientific (array) databases, cloud databases, database systems for machine learning.
12	General review of the course

Data Analytics

Academic Department: Operations and Information Management
Semester and Year: First/ Fifth
Weight: 3

Course Description:
This course prepares students to gather, describe, and analyze data, and use advanced statistical tools to make decisions on operations, risk management, finance, marketing, etc. Analysis is done targeting economic and financial decisions in complex systems that involve multiple partners.

Course Objectives:

A. Computer data analysis which teaches students the latest tools to input, format, calculate, analyze, and graphically present data.
B. Equip students with the skills needed to use a state-of-the-art spreadsheet program widely used in the workplace.

Student Learning Outcomes:

1. Gather sufficient relevant data, conduct data analytics using scientific methods, and make appropriate and powerful connections between quantitative analysis and real-world problems.
2. Demonstrate a sophisticated understanding of the concepts and methods; know the exact scopes and possible limitations of each method; and show capability of using data analytics skills to provide constructive guidance in decision making.
3. Use advanced techniques to conduct thorough and insightful analysis, and interpret the results correctly with detailed and useful information.
4. Show substantial understanding of the real problems; conduct deep data analytics using correct methods and draw reasonable conclusions with sufficient explanation and elaboration.
5. Make better business decisions by using advanced techniques in data analytics.

Course Material: materials will be available to the student by the instructor
Supplemental Material: Data Science and Big Data Analytics: Discovering, Analyzing, Visualizing and Presenting Data 1st Edition by EMC Education Services, 2015

Important Notes:
Aspects of the course schedule may be changed at the lecturer's discretion to reflect course improvements.

Course Outline

Sessions	Topic
1	Introduction
2-3	Data Summarization and Visualization
4-5	Linear and Nonlinear Regression
6-7	Model Selection
8-9	Classification, Logistic Regression
10	Clustering
11	Decision Trees
12	General review of the course