ISTINYE UNIVERSITY

FACULTY OF ECONOMICS, ADMINISTRATIVE AND SOCIAL SCIENCES

DEPARTMENT OF MANAGEMENT INFORMATION SYSTEMS

COURSE DESCRIPTIONS

1st SEMESTER

Maths for Social Sciences I | ECTS (2+2) 4

A Function Approach Integrating Algebra, Trigonometry, and Differential Calculus, Properties and Graphs of Polynomial, Rational, Exponential, and Logarithmic Functions, Properties and Graphs of Trigonometric Functions, Functions and Limits, Derivatives, Techniques and Applications of Differentiation, Logarithmic and Trigonometric Functions, Integral Calculus, Including Definite and Indefinite Integrals, Techniques of Integration, With Applications in Social and Life Sciences.

Introduction to Business | ECTS (3+0) 5

Basic Concepts and Principles of Organization and Management, Description of Function of Management: Planning, Organizing, Directing and Controlling, Motivation, Leadership, Role of the Manager in Organization, Role of the Entrepreneur in Organization, Legal Structures of Enterprises, Business Combination.

Computer Literacy | ECTS (2+2) 5

Email and IM Usage and Etiquette, Computer Security Basics, Mobile and Cloud Computing Basics, Google Apps and Services: Docs, Sheets, Slides, Drive, Calendar, Keep, Scholar, Apple Apps and Services.

2nd SEMESTER

Maths for Social Sciences II | ECTS (2+2) 4

Analytic Geometry, Functions and Limits, Derivatives, Techniques and Applications of Differentiation, Logarithmic and Trigonometric Functions, Definite and Indefinite Integrals, Techniques of Integration, With Applications in Social and Life Sciences.

Introduction to Economics | ECTS (3+0) 5

A preparation course for Microeconomics and Macroeconomics course to come, introducing concepts such as; Supply and Demand, Market Equilibrium, Quotas and Price Ceilings, Market Power, Externalities and Property Rights, Information Economics and Adverse Selection, Benefit-Cost Analysis, Income Distribution and Labour Markets, Public Goods and Political Economy, Economic Growth in Long Run, Business Cycles, Income and Spending, Monetary Policy, Macroeconomic Policy, International Economy.

Business Law | ECTS (3+0) 3

Basic Concepts of Law, Legal Transactions, Classification of Agreement, Offer and Acceptance, Competency of Agreement, Consentment, Void Agreements, Representation.

Introduction to MIS | ECTS (3+0) 5

The Role of Information Systems in Organizations, Technical and Managerial Issues Related to Computer Technology, Knowledge Development, Information Systems, and Information Architecture for Business Organizations.

3rd SEMESTER

Financial Accounting | ECTS (2+2) 6

Basic Concepts and Principles of Accounting based on International Financial Reporting Standards (IFRS), Business Transactions and Adjustments, Trial Balance, Balance Sheet, Income Statement and Cash Flow Statement, Major Accounts Classification and Analysis, the Use and Interpretation of Financial Reports.

Basic Programming | ECTS (3+2) 7

Introduction to Programming Languages, Python Basics, Math, Strings, and Variables, Basic Input and Output, Control Structures, Repetition Structures, Functions, Strings, Programming Graphics, Data Structures, File Input and Output, Exception Handling.

Applied Statistics | ECTS (2+2) 5

Identification of Data, Probability the ory, Discrete Random Variables and Probability Distribution, Continuous Random Variables and Probability Distribution, Sampling and Sampling Distribution.

Introduction to Database | ECTS (3+0) 5

Design and Implementation of Databases for Database Backed Software Applications. Relational Database Management Systems, Keys, Indexes, Stored Procedures, Normalizations, Join Operations, Database Management and Query Techniques by Using the Standard SQL Language.

4th SEMESTER

Quantitative Decision Making | ECTS (2+2) 5

Linear Algebra; Probability Theory, Random Variables Distributions, Hypothesis Testing, Asymptotic Distribution Theory, Estimation.

System Analysis and Design | ECTS (3+0) 5

An Overview of Principles, Methods and Techniques of Systems Development, and Gathering Experience from A Development Project in Which A Specific Development Method is Used.

Simulation Modeling and Analysis | ECTS (3+0) 6

Introduction to Systems, Classification of Systems and Models, Manufacturing Organizations as Systems, Discrete Event Simulation, System Life Cycle Analysis, Systems Dynamics, Continuous Simulation, Supply Chain Modeling, Case Study.

5th SEMESTER

Computer Hardware and Systems Software | ECTS (2+2) 5

Techniques for Eliciting Requirements, Languages and Models for Representing Requirements, Analysis and Validation Techniques, Including Need, Goal and Use-Case Analysis, Requirements in the Context of System Engineering, Specifying and Measuring External Qualities: Performance, Reliability, Availability, Safety, Security, Etc., Specifying and Analyzing Requirements for Various Types of Systems: Embedded Systems, Consumer Systems, Web-Based Systems, Business Systems, Systems for Scientists and Other Engineers.

Marketing Management | ECTS (3+0) 5

Marketing Process, Marketing Plan, Marketing Strategies, Marketing Information System, Market Research and Its Types, Market Segmentation, Target Market Selection, Product Life Cycles, New Product Development, Pricing, Distribution Channels and Distribution Policies, Direct Marketing, Consumer Behavior, Competitive Strategies, Integrated Marketing Communication and Positioning.

Database Systems | ECTS (3+2) 7

Design and Implementation of Databases for Database Backed Software Applications. Database Management Systems, Keys, Indexes, Stored Procedures, Normalizations, Join Operations, Database Management and Query Techniques by Using the Standard SQL Language.

Research Methods | ECTS (2+2) 4

Research Problem Formulation and Definition, Research Ethics, Finding and Reviewing the Literature, Primary and Secondary Data Collection Methods, Analysis of Qualitative Data, Analysis of Quantitative Data, Writing the Proposal and the Research.

Data Science I | ECTS (2+2) 5

Introduction to Data Analysis Tools in Python, Descriptive Statistics, Data Structures with Pandas, Introductory Hypothesis Testing and Statistical Inference, Web Scraping and Data Acquisition via Apis, Linear Regression, Classification Methods, Including Logistic Regression, K-Nearest Neighbors, Decision Trees, and Support Vector Machines, Data Visualization, Clustering Methods, Dimensionality Reduction, Including Principle Component Analysis, Network Analysis, Rating, Ranking, and Elections, Cleaning and Reformating Messy Datasets Using Regular Expressions or Dedicated Tools such as Open Refine, Natural Language Processing, Ethics of Big Data.

Financial Management | ECTS (2+2) 5

Time Value of Money, Basic Financial Analysis, Concepts and Analysis of Risk and Return, Cost of Capital, Corporate Financing Decisions and Introduction to Capital Structure, Capital Budgeting, Investment and Finance Policies, Financial Planning and Forecasting.

6th SEMESTER

Mobile Programming Languages | ECTS (3+2) 7

A General Knowledge of the Basic Concepts of Syntactic and Semantic Structures of Programming Languages through Comparative Analysis of Several Programming Languages, Additionally, Several Programming Languages, Understanding General Conceptual Grammatical Issues Necessary for Designing New Programming Languages and Compilers.

Production Management | ECTS (2+2) 5

Productivity, Competitiveness and Strategy; Decision Making and Forecasting, Process Selection and Capacity Planning; Facilities Layout; Location Planning and Analysis, Quality and Quality Control, Inventory Management, MRPII and Supply Chain Management.

Data Science II | ECTS (2+2) 5

Identify the Role of Data as a Business Asset, Understand the Principles of Predictive Modeling, Recognize How Different Data Science Methods Can Support Business Decision-Making, Learn Basic Data Analytic Techniques for Solving Business Problems, Understand the Promises and Limitations of Big Data, Gain Some Experience in Using Data Analytic Tools.

7th SEMESTER

Strategic Management | ECTS (3+0) 5

Within the Scope of This Course the Terms and Concepts of Strategic Management/ Development of Strategic Management, Social Responsibility and Ethics, External and Internal Environment Analysis, Organizational Analysis, Selection of Corporate, Business and Operational Strategies, Implementation of Strategies and Control of the Strategies to Pics.

Supply Chain Management | ECTS (3+0) 5

Comprehensive Coverage of to Pics in the Design and Management of the Supply Chain; Supply Chain Modeling, Inventory Management, Risk Pooling, Value of Information, Supply Chain Partnerships, International Issues, and Decision Support Systems.

Information Systems Project Management | ECTS (3+0) 5

Comprehensive Introduction to Project Management in an Information Technology/Information Systems Context, Project Management and the Issues Associated with Managing Projects in the IS/IT Context.

Decision Support Systems for Business | ECTS (2+2) 5

Understanding of the IR Business and Customers, Data Warehouse, and a Modeling Warehouse, along with to Help the User Get More Out of the IR Data and Models to Help Decision Makers See Avenues through which to Gain Competitive Advantage.

AREA ELECTIVE COURSES

Business Application Development | ECTS (3+0) 5

An Introduction to Basic Concepts in Computer Programming with an Emphasis on Business Applications, an Understanding of Fundamental Programming Logic and Learn to Use Basic Programming Structures to Solve Business Problems.

Computational Methods and Tools | ECTS (3+0) 5

FORTRAN, C, C++, MATLAB®, and Mathematica, Program Design, Algorithm Development and Verification, and Comparative Advantages and Disadvantages of Different Languages.

Computer Networks and Security | ECTS (3+0) 5

Fundamental Concepts and Principles of Computing and Network Security, Basic Security Topics, Including Symmetric and Public Key Cryptography, Digital Signatures, Cryptographic Hash Functions, Authentication Pitfalls, and Network Security Protocols.

Customer Relationship Management | ECTS (3+0) 5

Fundamental Aspects of Developing and Managing Customer Relationships, Tools Commonly Used for Developing and Implementing CRM Programs.

Cyber Law | ECTS (3+0) 5

Nature of The Influence of Information Technology Upon the Development of New Legal Doctrine, Moving on to Consider, Through Topics Such As Data Protection, Computer Misuse and Computer Evidence, Copyright and Digital Rights Management, Criminal Content Liability And Defamation.

Database Design and Management for Business | ECTS (3+0) 5

Relational Database Model; Explain the Considerations and Choices Available for Achieving Data Integrity; The Role of Normalization in Providing Efficiencies and Data Integrity; The Tools and Techniques for Transforming Business Requirements into Viable, Efficient, and Reliable Databases Aligned with Business Requirements.

Design Project | ECTS (3+0) 5

Planning and Development of a Design Programme, Experimental Work in Studio, Workshops and Laboratories.

Human Computer Interaction | ECTS (3+0) 5

Design, Evaluation and Implementation of Interactive Computing Systems for Human Use and with the Study of Major Phenomena Surrounding Them.

Industry 4.0 | ECTS (3+0) 5

An Introduction to Industry 4.0 (or the Industrial Internet), Its Applications in the Business World.

Information & Technology Management | ECTS (3+0) 5

Developing an Awareness of The Range, Scope, And Complexity of Technological Innovation and the Issues Related to Managing Technological Change, Understanding Different Approaches to Managing Innovation, Clearly Identifying Drivers and Barriers to Technological Innovation within an Organization, Understanding What It Takes to Manage Technological Innovation.

Introduction to Big Data | ECTS (3+0) 5

An Introduction to One of The Most Common Frameworks, Hadoop, That Has Made Big Data Analysis Easier and More Accessible -- Increasing the Potential for Data to Transform Our World.

Introduction to Operating Systems | ECTS (3+0) 5

Introduction to Operating Systems, Memory Management, Process Management, Concurrent Processes, Deadlocks, Processor Management, I/O and Device Management, File Management and File Systems, Introduction to Distributed Operating Systems, Synchronization in Distributed Systems, Distributed File Systems, Overview of Contemporary OS Technology.

Mobile Programming Languages | ECTS (3+0) 5

An Introduction to Mobile Software Development for Those with Java Programming Experience, Emerging Mobile Ecosystem, Location-Aware Software, and Advanced Programming Topics Including Inheritance, Polymorphism, Threads, Sensors, Apis and Databases.

Object Oriented Modeling | ECTS (3+0) 5

Understanding Basic Principles Modeling of Computer Systems Using UML, Theoretical and Practical Preparation Enabling Students to Working Project Team.

Process Mining | ECTS (3+0) 5

Introduction to Data Mining, Process Models and Process Discovery, Process Discovery Techniques and Conformance Checking.

Social Media Analysis | ECTS (3+0) 5

The Proliferation of Social Media, Social Networking Websites, Blogging and Microblogging, and Other Forms of Online Interaction and Content Generation.

Web Based Application Programming | ECTS (3+0) 5

Server-Side Technologies of Active Server Pages (ASP) And ASP.NET. Application of Connectivity Issues with Databases. Web Server Management. Hypertext Preprocessor (PHP) Essentials.