

## Social Science University of Ankara Northern Cyprus

### Program of Management Information System Course and Course Description

First Year						
1. Semester - Fall						
Course Code	Course Name	C/E	T	A	Credit	ECTS
MIS101	Economics-I	C	3	0	3	5
MIS103	Managment and Organization	C	3	0	3	5
MIS105	Introduction to Information Systems and Technologies	C	3	2	4	6
MIS107	Introduction to Algorithms and Programming	C	3	2	4	6
MIS109	Calculus	C	3	2	4	5
YDL101	Foreign Language I*	C	3	0	3	3
AİT101	Atatürk İlkeleri ve İnkılap Tarihi I	C	2	0	2	3
TFL101	Turkish As a Foreign Language I**	C	2	0	2	2
TURK101	Türk Dili I	C	2	0	2	2
<b>Total</b>			<b>24</b>	<b>0</b>	<b>27</b>	<b>37</b>
**It will be a language other than English.						
** Foreign students will take it.						
2. Semester - Spring						
Course Code	Course Name	C/E	T	A	Credit	ECTS
MIS102	Economics-II	C	3	0	3	5
MIS104	Principles of Marketing	C	3	0	3	5
MIS106	Object Oriented Programming	C	3	2	4	6
MIS108	Introduction to Database	C	3	0	3	4
MIS110	Matrix Theory	C	3	2	4	5
YDL102	Foreign Language II*	C	3	0	3	3
AİT102	Atatürk İlkeleri ve İnkılap Tarihi II	C	2	0	2	3
TFL102	Turkish As a Foreign Language I**	C	2	0	2	2
TURK102	Türk Dili II	C	2	0	2	2
<b>Total</b>			<b>24</b>	<b>0</b>	<b>26</b>	<b>35</b>
**It will be a language other than English.						
** Foreign students will take it.						

## Second Year

### 3. Semester - Fall

Course Code	Course Name	C/E	T	A	Credit	ECTS
MIS201	Financial Accounting	C	3	0	3	5
MIS203	Statistics	C	3	0	3	6
MIS205	Information Technology Infranstructures	C	3	1	3	6
MIS207	Web Based Application Programming	C	3	2	4	6
MIS209	Elective-I	E	3	0	3	4
MIS211	Elective-II	E	2	0	3	3
<b>Total</b>			<b>17</b>	<b>3</b>	<b>19</b>	<b>30</b>

### 4. Semester - Spring

Course Code	Course Name	C/E	T	A	Credit	ECTS
MIS202	Managerial Accounting	C	3	0	3	5
MIS204	Research Methodology	C	4	0	4	6
MIS206	Managerial Communications	C	3	0	3	6
MIS208	Businness Data Communications	C	3	0	3	6
	Elective-III	E	3	0	3	4
	Elective-IV	E	2	0	2	3
<b>Total</b>			<b>18</b>	<b>0</b>	<b>18</b>	<b>30</b>

## Third Year

### 5.Semester - Fall

Course Code	Course Name	C/E	T	A	Credit	ECTS
MIS301	System Analysis and Design	C	3	0	3	6
MIS303	Data Mining	C	3	0	3	5
MIS305	Database Systems	C	4	0	4	6
MIS307	Cyber Law	C	3	0	3	5
	Elective-V	E	3	0	3	5
	Elective-VI	E	2	0	2	3
<b>Total</b>			<b>18</b>	<b>0</b>	<b>18</b>	<b>30</b>

6. Semester - Spring						
Course Code	Course Name	C/E	T	A	Credit	ECTS
MIS302	Finance	C	3	0	3	5
MIS304	Object Oriented Modeling	C	3	0	3	6
MIS306	Business Application Development	C	3	0	3	5
MIS308	Quant. Analy. for Dec.Making	C	3	0	3	5
MIS310	Enterprise Information Systems	C	3	0	3	6
	Elective-VII	E	3	0	3	3
<b>Total</b>			<b>18</b>	<b>0</b>	<b>18</b>	<b>30</b>

Fourth Year						
7. Semester - Fall						
Course Code	Course Name	C/E	T	A	Credit	ECTS
MIS401	Information Syst. Project Management	C	3	0	3	6
MIS403	Customer Relationship Management	C	3	0	3	6
MIS405	Decision Support Sys. for Business	C	3	0	3	6
MIS407	Senior Seminars in MIS	C	3	0	3	6
MIS409	Internship-I	C	1	4	3	6
<b>Total</b>			<b>13</b>	<b>4</b>	<b>15</b>	<b>30</b>
8. Semester - Spring						
Course Code	Course Name	C/E	T	A	Credit	ECTS
MIS402	Cyber Security	C	3	0	3	6
MIS404	Knowledge Management	C	3	0	3	6
MIS406	Special Topics in MIS	C	3	0	3	6
MIS408	Ethical Issues in Computing	C	3	0	3	6
MIS410	Internship-II	C	1	4	3	6
<b>Total</b>			<b>13</b>	<b>4</b>	<b>15</b>	<b>30</b>

TOTAL CREDIT	:156/252ECTS
TURKISH STUDENT TOTAL CREDIT	:152
FOREIGN STUDENT TOTAL CREDIT	:148
TURKISH STUDENT TOTAL ECTS	:248
FOREIGN STUDENT TOTAL ECTS	:242

Elective Courses						
3. Semester - Fall						
Course Code	Course Name	C/E	T	A	Credit	ECTS
MIS209	Strategic Management (Elective-I)	E	3	0	3	4
MIS211	Purchasing Management (Elective-II)	E	2	0	2	3
4. Semester - Spring						
Course Code	Course Name	C/E	T	A	Credit	ECTS
MIS210	Human Factors in Computing (Elective-III)	E	3	0	3	4
MIS212	Integrated Marketing Communications (Elective-IV)	E	2	0	3	3
5. Semester - Fall						
Course Code	Course Name	C/E	T	A	Credit	ECTS
MIS311	Entrepreneurship in IT (Elective-V)	E	3	0	3	5
MIS313	Leadership and Motivation (Elective-VI)	E	2	0	2	3
6. Semester - Spring						
Course Code	Course Name	C/E	T	A	Credit	ECTS
MIS314	Systems Dynamic Modeling (Elective-VII)	E	3	0	3	3

## Course Descriptions

### 1. Semester – Fall

- **MIS101 Economics-I**

Demand and supply, elasticity, price controls, marginal utility and indifference curve analysis, production and costs, market structures, determination of wages, return on capital.

- **MIS103 Management and Organization**

Principles of managerial practices, planning, organizing, directing and controlling, proper methods and techniques to increase managerial effectiveness and efficiency. Topics covered include classical and

modern approaches to management. Case histories are used to illustrate problems in managing organizations.

- **MIS105 Introduction to Information Systems and Technologies**

Information and information system concepts. Basic components and functions of computers. Information systems technologies and telecommunications. Fundamentals of information systems. Overview of different types of information systems. Utilization of software packages widely used (word processor, spreadsheet, and database).

- **MIS107 Introduction to Algorithms and Programming**

Information and information system concepts. Basic components and functions of computers. Information systems technologies and telecommunications. Fundamentals of information systems. Overview of different types of information systems. Utilization of software packages widely used (word processor, spreadsheet, and database).

- **MIS109 Calculus**

Sets and set operations; Number sets, range concept, absolute value; Definition of polynomial functions, Analysis of first-order polynomial functions; Examination of quadratic polynomial functions; Solving first order and second order inequalities; Exponential and logarithmic functions; Applications of exponential and logarithmic functions; Limit and continuity; Derivative concept and applications of derivative; Solving systems of linear equations; Multivariable functions, partial derivative; Derivative market equilibrium, break-even analysis; Marginal analysis and flexibility topics are taught.

- **YDL101 Foreign Language-I**

Knows a language other than English based on four basic skills at A-1 level.

- **TFL101 Turkish as a Foreign Language I**

Foreign students learn Turkish at A1 level based on four basic skills.

- **AİİT101 Atatürk İlkeleri ve İnkılap Tarihi I**

Internal and external reasons that prepared the collapse of the Ottoman Empire; XIX. Innovation movements in the Ottoman Empire in the 19th century; The currents of ideas in the last period of the Ottoman Empire; XX. The political and military situation of the Ottoman Empire at the beginning of the century; World War I and the Armenian question; Invasion of Anatolia and reactions; Mustafa Kemal Pasha's departure to Samsun and his activities; congress period and organization; the opening of the last Ottoman Chamber of Deputies and the acceptance of the National Pact; Preparation for the National Struggle and the material and moral foundations of this preparation; The opening and activities of the TGNA; Treaty of sevr; the struggles on the Southern and Eastern fronts; the establishment of the regular army, the Greek offensive and the wars on the Western front, the signing of the Armistice of Mudanya, the convening of the Lausanne Conference and the signing of the Peace Treaty.

- **TURK101 Türk Dili I**

To make people understand the importance of language in human and social life, to show the classification of languages and the place of Turkish among the world languages, to make people adopt the characteristics of Turkish in terms of phonetics, structure knowledge and semantics, and to show the rules of spelling.

## 2. Semester – Spring

- **MIS102 Economics II**

Nature of income and national income determination, employment, money and banking, fiscal and monetary policy, international trade theory and balance of payments, economic development, economic system, the general structure of Turkish economy.

- **MIS104 Principles of Marketing**

Core concepts of marketing, marketing management, marketing organizations and the marketing environment. Analysis of characteristics of the consumer and organizational markets, challenges created by the rapidly changing environmental factors, and marketing problems along with the basics of strategy formulation. Case studies in order to better involve students in the identification and the solution of the marketing problems.

- **MIS106 Object Oriented Programming**

Fundamentals of object oriented programming; objects, data abstraction, data encapsulation, inheritance, and polymorphism. Exception handling. Graphical user interface programming. Database connection. Multithreading. Program development with object oriented design.

- **MIS108 Introduction to Database**

Introduction to database management systems. Basic concepts, environment and tools. Commands, functions, operators, and data types. Table definition and modification. Sorting and indexing. Loops and control structures. Storage operations. Output operations. Procedures. Screen and report generators.

- **MIS110 Matrix Theory**

Matrix theory is an honours course in elementary linear algebra. Linear algebra is the theory of vectors, matrices and linear transformations. Linear algebra is a key tool in many parts of pure and applied mathematics. It is used in geometry, analysis, particle physics, statistics, and optimisation to name but a few of its areas of application. The course will emphasise the theoretical and conceptual aspects of the subject, and students will be expected to write proofs. The pace will be quite fast. It is particularly important that students attempt all the homework exercises since this is the best way to ensure a firm grasp on the concepts. We will use the Maple computer algebra system to work with examples that are too large to compute by hand

- **YDL102 Foreign Language-I**

Knows a language other than English based on four basic skills at A-2 level.

- **TFL102 Turkish as a Foreign Language II**

Foreign students learn Turkish at A2 level based on four basic skills.

- **TURK102 Türk Dili II**

To show the subtleties of composition writing, to distinguish the differences between writing types, to introduce the classics of Turkish and World literature, to show scientific writing and literary text writing techniques, and to have them practiced.

- **AIİT101 Atatürk İlkeleri ve İnkılap Tarihi I**

A general evaluation of the emergence of the National Struggle and Understanding the Spirit of the National Forces. . The Economic Sources of the National Struggle. The Process That Leads Mustafa Kemal Pasha To The Leadership And The Dynamics That Feed The Process. The Matter of Political Representation, the Ottoman Government Shaking Hands with the National Struggle and the Amasya Protocol. Opening of the Grand National Assembly of Turkey, Those Who Oppose the Opening of the Assembly/Revolt. The Intervention of Imperialism in the Fate of the Turks: Treaty of Sevres, Developments that Prepared the Treaty of Sevres, Signing of the Treaty and Reactions. London Conference: Developments Preparing the Conference; 1-Military Developments; Turkish-French Struggle and Armistice, First Battle of İnönü and 2-Political Achievements; Turkish-Russian Rapprochement, Treaty of Gyumri. Invitation of Ankara Administration to the Conference and Bilateral Agreements at the Conference. Developments that Prepared the Ankara Agreement: 1-Military Achievements; Second Battle of İnönü, Battles of Eskişehir and Kütahya, Battle of Sakarya and 2-Political Achievements; Moscow Treaty, Afghanistan and Kars Treaties, Reactions in French Public and Muslim Countries. Signing the Ankara Agreement, Reactions to the Agreement and New Policies of States. Registration of the National Pact in Lausanne: A- Reasons for the Conference, 1-Political Developments, 2-Military Achievements; The Battle of the Commander-in-Chief and the Armistice of Mudanya. Political/Legitimate Dimensions of Conference Invitation and Representation Issue. Jobs Negotiated in Lausanne; Borders, Minority Issues, Economic and Financial Issues. Today's Value and Evaluation of the Treaty of Lausanne. Republican Period and Turkish Revolution A- Foundation of the Republic; Abolition of the Sultanate, Proclamation of the Republic, Abolition of the Caliphate, Constitutional Movements and Experiences in the Multi-Party Transition Process, B-Revolutions; Revolutions in Law, Education, Culture, Social and Economic Fields, C-Principles; The Basic Principles of the Turkish Revolution and Atatürk's Principles. Atatürk Era Foreign Policy, Principles of Foreign Policy, 1923-1932 Foreign Policy Events, 1932-1938 Foreign Policy Events. Events of İnönü Period and World War II. II. The Situation of Turkey After World War II and the Cold War Period. The Sovereignty of the Superpower after the Bipolar World and Türkiye.

### 3. Semester – Fall

- **MIS201 Financial Accounting**

Accounting concepts and principles. Accounting processes and transactions. A complete study of the steps in the accounting cycle: journalization, posting, trial balance, adjustments, closing, preparation of financial statements. Introduction to accounting information systems.

- **MIS203 Statistics**

Descriptive statistics; graphical and numerical methods. Basics of probability, discrete and continuous distributions. Sampling theory, interval estimation and hypothesis tests for single population. Applications using a statistical software package.

- **MIS205 Information Technology Infrastructures**

Cloud computing, storage systems, data centers, server virtualization, Container/Docker, client/server and mainframe architectures. Different mobile, desktop and server operating systems in business environments. GNU/Linux operating systems basics. Digital design, computer hardware and peripherals. Computer forensic analysis for digital evidence.

- **MIS207 Web Based Application Programming**

Basic concepts of visual and event-oriented programming. Topics in client-site programming with a scripting language. DOM, XML and Ajax. Server-site programming techniques. Web Services. Implementation of applications using current languages.

#### 4. Semester – Spring

- **MIS202 Managerial Accounting**

Introduction to cost accounting. Break-even analysis. Introduction to budgeting processes. Financial statement analysis. Accounting information systems and business processes. Sales and purchasing processes.

- **MIS204 Research Methodology**

The role of research in managerial planning and decision making. Research problem definition and formulation. Quantitative and qualitative research techniques. Sampling, data sources, data gathering techniques, coding, tabulation and data analysis.

- **MIS206 Managerial Communication**

Strategic approaches to communication in professional contexts. Interpersonal communication skills for managers. Improving perceptions. Verbal and non verbal communication. Listening. Interviewing. Presenting to a specific audience. Managing meetings. Working in teams and participating in the decision making process.

- **MIS208 Business Data Communications**

Information communication technologies, standards, and hardware/software components for management information systems. Understanding of the Open Systems Interconnection (OSI), TCP/IP protocols, for computer networks. Emerging technologies such as Blockchain and the Internet of Things (IoT), etc. Network security and forensics.

#### 5. Semester – Fall

- **MIS301 Systems Analysis and Design**

Systems development life cycle. Systems analysis; identifying problems. determining and analyzing information requirements. Systems design; output, input, file, database, user interface, data-entry procedures and software design. Systems development; project management, costs, programming, testing and documentation. Systems implementation and evaluation.



- **ECN303 Data Mining**

Methodology of knowledge discovery from databases. Data mining functionalities: association, classification, prediction and clustering. Various algorithms related to functionalities: decision tree classification, neural networks, Bayesian classification, regression, K-means clustering. Applications of these concepts and techniques to real world problems.

- **MIS305 Database System**

Architecture of databases, data presentation and data models, logical level, storage structures and access techniques. Normalization, functional dependency, data independence, database integrity, constraint assertion, data dictionary and directory. Bachman and ER diagrams. Semantic Net representation. A comparison of database approaches. Object oriented databases. Text databases and hypertext

- **MIS307 Cyber Law**

Basic concepts of law, different legal systems, branches of law (public law - private law), rights. Internet access as a fundamental right. Legal status and liabilities of search engines, access providers, hosting providers, and content providers. Right to be forgotten, privacy and other personal rights. Freedom of speech and anonymity. Impact of the cyber world on business, trade, employment and equal opportunity. Digital crimes and torts. Intellectual property (trademarks, copyrights, patents) and trade secrets.

## 6. Semester – Spring

- **MIS302 Finance**

Survey of the three fundamental areas of finance; corporate finance, basic investment and financial intermediation. Introduction to financial analysis, planning and control; to the management of funds; and to the fundamentals of time value of money and capital budgeting. Study of basic investment markets, fundamental and technical analysis, and portfolio analysis. Discussion of source of finance, investment of funds, and finance in general.

- **MIS304 Object Oriented Modeling**

Introduction to object oriented modeling. Object-oriented analysis and design process and comparison of methods. Overview of Unified Modeling Language (UML), modeling with UML diagrams. Evaluating an object-oriented design. Introduction to application frameworks and design patterns. Discussion of modeling using UML in lab sessions.

- **MIS306 Business Application Development**

Development of a business application as a group project. Software implementation and maintenance, coding, testing, verification and validation. Software performance metrics. Excellence in business applications.

- **MIS308 Quantitative Analysis for Decision Making**

Selected mathematical tools and techniques for analysis of business and economic problems as an aid to decision-making in management. Models and applications related to decision theory, linear programming, queuing, network analysis, planning and scheduling, simulation and other standard concepts. Usage of computer packages related to the discussed topics.

- **MIS310 Enterprise Information Systems**

Fundamentals of Enterprise Information Systems (EIS). Business aspects of EIS: business functions, business organizations, business processes. Technological aspects of EIS: hardware platforms, operating system platforms, enterprise software applications, data management and storage, telecommunications platforms, consulting and system integration services. EIS implementation: life cycles, EIS project management. Practical applications by using an EIS software package.

## 7. Semester – Fall

- **MIS401 Information System Project Management**

Principles and techniques of project management with emphasis on development of information systems, project planning, system selection, project team design, project estimation, project reporting, identifying and controlling project risks, budget, and quality assurance.

- **MIS403 Customer Relationship Management**

The importance of building and sustaining relationships with customers. Enhancing customer loyalty. Examining customer value and profitability. Developing customer relationship management strategies and tactics. The economic and strategic value of CRM. Integrating CRM strategy into company culture. Designing, implementing, and evaluating the CRM process.

- **MIS405 Decision Support Systems for Business**

Rational decision making and appropriate data support, components of Decision Support Systems (DSS): data, information, databases, DBMS, knowledgebase, datawarehouses, Rulebase/ModelBase. Expert systems mechanism and certainty factors, system dynamics and simulation, group DSS, executive information systems, user-interface components. Designing, implementation and evaluation of DSS.

- **MIS407 Senior Seminars in MIS**

Selected topics of current interests in MIS area directed by instructor with the joint of invited speakers.

- **MIS409 Internship-I**

Integration of the academic curriculum with practical experience in the field of management information systems. A minimum of 11 week of supervised and structured practical experience in organizations approved by the department.

## 8. Semester – Spring

- **MIS402 Cyber Security**

Overview of cyber attacks and threat groups, Ethical hackers and penetration testing fundamentals. Network protocols security overview. Introduction to cryptography. Elements of cyber security solutions; Cloud, hardware and software. Introduction to information security governance.

- **MIS404 Knowledge Management**

Concepts of organizational knowledge and knowledge organizations. Dimensions and processes of knowledge management and organizational memory. Creating knowledge: Learning, experimentation, discovery and innovation. Knowledge transformations between explicit knowledge and tacit knowledge. Development of organizational knowledge management policies. Techniques of information and knowledge mapping. Applying innovative information technology. Knowledge markets and knowledge managers. Managing virtual organizations. Knowledge and innovation management. Case studies and applications.

- **MIS406 Special Topics in Management Information Systems**

Special topics of current interest in MIS.

- **MIS408 Ethical Issues in Computing**

Introduction to ethical issues related to computer-based information systems: accessibility and censorship; security and privacy; intellectual property: copyrights and plagiarism; the digital divide. Professional and ethical responsibilities of Information Technology (IT) users; sensitivity to end-user needs.

- **MIS410 Internship-II**

Integration of the academic curriculum with practical experience in the field of management information systems. A minimum of 11 week of supervised and structured practical experience in organizations approved by the department.

### Seçmeli Dersler

- **MIS209 Strategic Management**

Introducing basic strategic management concepts. Ethics and social responsibilities. Corporate appraisal process. Analysis of strengths and weakness of a company. Evaluation opportunities and threats in an environment. Preparing competitive strategies.

- **MIS211 Purchasing Management**

Purchasing management is an introduction to how procurement can be managed and developed to provide more innovative and sustainable solutions for the public sector. The framework conditions and regulations for procurement in the public sector are reviewed in the course.

Purchasing management is the task of organizing and leading activities to get the best possible deliveries of goods and services from external suppliers. Purchasing management therefore greatly affects value

creation and quality, as well as the development of sustainable and innovative solutions for the individual business. Purchasing management is a challenging task that requires a good understanding of one's own business and knowledge of how to mobilize the supplier's / market's competence. The course will cover everything from simple to complex procurement, where different types of procurement and contract forms are also reviewed. Sustainable procurement is part of the UN's Sustainability Goals. How the procurements can be carried out to achieve innovative and sustainable solutions is covered throughout the course of purchasing management.

- **MIS210 Human Factors in Computing**

Understanding the effects of the human factors in developing and operating the information systems. Practical issues encountered in man-machine interaction and user-interface design. Current trends in the development of man-machine interaction technologies.

- **MIS212 Integrated Marketing Communications**

Examination of the integrated marketing communications mix. Design and management of marketing communication campaigns in the context of traditional, online, social, mobile and other digital media. Application of advertising, promotion, direct marketing and other marketing communication tools with an innovative outlook.

- **MIS311 Entrepreneurship in Information Technology**

Overview of the startup process with an emphasis on the "opportunity analysis" aspect (identification and analyses of potential markets for entry as an entrepreneur) of this experience. This opportunity analysis will cover concepts and trends; target markets; competition; and success factors (i.e., people, money and technology and/or processes).

- **MIS313 Leadership and Motivation**

Understanding human motivation. Basic needs and human nature. The content and process of motivation. Social and group influences on motivation. Motivation, satisfaction and performance. Making the job more motivating. Performance evaluations and reward structures. Leadership styles. Coaching and supervision. Teamwork. Cultures of organizations. Organizational change and development.

- **MIS314 Systems Dynamic Modeling**

Structure and behavior of complex dynamic systems. Tools for system thinking and model building. Causality diagramming. Formulating linear and non-linear relationships. Negative and positive feedback loops. Flows and stocks. S-shaped growth. Validation and verification of models. Applications to real life cases.