PROGRAM INFORMATION

Program Name and Degree Awarded: Management Information Systems / Bachelor's Degree

Duration of Studies: 4 years

Total Credits / ECTS: 130 Credit / 240 ECTS

Language of Instruction: English

Mission and Vision:
Mission:

- To provide high-quality education in management and information systems that integrates theory with practice.
- To equip students with analytical, technical, and managerial skills required in the digital era.
- To foster innovation, critical thinking, and problem-solving abilities through research and applied projects.
- To collaborate with industry, academia, and society for producing sustainable and technology-driven solutions.
- To develop professionals who are committed to lifelong learning, ethical values, and social responsibility.

Vision:

- To educate innovative leaders who can compete globally in the fields of management and information systems.
- To become a pioneering department contributing to digital transformation and sustainable development.
- To build a bridge between information technologies and the business world through interdisciplinary education and research.
- To achieve regional and international recognition through academic excellence and innovative solutions.
- To cultivate ethically responsible graduates who create value for society and industry.

Program Objectives:

- To equip students with foundational knowledge in management, information systems, and emerging technologies.
- To develop students' ability to analyze, design, and implement effective information systems in business environments.
- To cultivate problem-solving, critical thinking, and decision-making skills applicable to real-world organizational challenges.
- To foster interdisciplinary understanding by integrating business, technology, and data analytics.
- To prepare graduates for leadership roles and entrepreneurial activities in information systems and related fields.

- To encourage ethical and socially responsible behavior in professional and organizational contexts.
- To promote lifelong learning, continuous professional development, and adaptation to technological advancements.

Program Learning Outcomes

- PO1 - Information Technology Knowledge: Have the fundamental knowledge regarding technical concepts and practices in IT when working with key information systems, such as operating systems, database systems, communication systems and networks.
- PO2 - Problem Analysis: Have the scientific foundations necessary for managing and maintaining information systems; in particular, an ability to apply knowledge of computing, logic and mathematics where necessary when solving problems.
- PO3 - Analysis and Design: To be able to determine information system requirements, perform system analysis and design.
- PO4 - Use of Techniques and Tools: Have the ability to identify, analyze, make decisions, apply strategies and implement solutions in complex management related problems.
- PO5 - Research and Investigation: To be able to determine data needs in problem solving based on Management Information Systems (MIS) of different disciplines, to be able to obtain this data and to compile the data to produce information and make it ready for use.
- PO6 - Ethical Behavior: Have an awareness of current-day problems, and an understanding of professional, ethical, legal, security and social issues.
- PO7 - Individual and Team Work: Be able to work and manage in interdisciplinary research and development projects as an individual and/or as a member of a team, and be equipped with the theoretical background to pursue graduate level studies.
- PO8 - Oral and Written Communication: Have effective verbal and written communication skills in the field of Information Technology (IT).
- PO9 - Project Management: Information on business practices such as project management, risk management and change management; awareness of entrepreneurship and innovation; information about sustainable development.
- PO10 - Entrepreneurship and Innovation: Being able to be an entrepreneur and produce innovative ideas as a MIS expert
- PO11 - Lifelong Learning: Have an acute awareness of the need for continued professional development with a view to life-long learning; conduct research where necessary, applying modern techniques while following developments in the Informatics industry.
- PO12 - Computer Hardware: To be able to recognize basic computer hardware, distinguish the technical features of the parts, compare and classify them, and select the appropriate hardware.
- PO13 - Software: To have knowledge about software types, software selection and procurement, and to be able to plan and manage software development processes.
- PO14 - Computer Network: To have basic knowledge about computer networks, information security and information assurance

Curriculum

1-3-5-7 SEMESTER				
COURSE CODE	**COURSE NAME**	**CREDIT**	**ECTS**	**COURSE TYPE**
COMN104	PSYCHOLOGY	(3,0)3	5	Compulsory
COMN107	ECONOMICS	(3,0)3	6	Compulsory
COMN109	MATHEMATICS	(3,0)3	5	Compulsory
COMN117	INTRODUCTION TO SOCIAL SCIENCES	(3,0)3	6	Compulsory
UFLE01	FOREIGN LANGUAGE ELECTIVE I	(3,0)3	3	Elective
UTEC01	UNIVERSITY ELECTIVE I	(3,0)3	5	Elective
BFIN201	FINANCIAL ACCOUNTING I	(3,0)3	6	Compulsory
COMN223	MACROECONOMICS	(3,0)3	6	Compulsory
COMN253	STATISTICS	(3,0)3	6	Compulsory
MISY205	PRINCIPLES OF MANAGEMENT	(3,0)3	6	Compulsory
MISY207	PRINCIPLES OF MARKETING	(3,0)3	6	Compulsory
MISY303	PRODUCTION MANAGEMENT	(3,0)3	6	Compulsory
MISY315	SOFTWARE DESIGN AND ARCHITECTURE	(3,0)3	6	Compulsory
MISY337	DATABASE MANAGEMENT SYSTEMS	(3,2)4	7	Compulsory
OSHE201	OCCUPATIONAL SAFETY AND HEALTH	(3,0)3	5	Compulsory
MISE02	TECHNICAL ELECTIVE II	(3,0)3	6	Elective
MISE05	TECHNICAL ELECTIVE V	(3,0)3	6	Elective
MISY400	SUMMER TRAINING	(1,0)1	1	Compulsory
MISY407	SOFTWARE PROJECT MANAGEMENT	(3,0)3	6	Compulsory
MISY410	GRADUATION PROJECT I	(1,0)1	2	Compulsory
MISY461	STRATEGIC PLANNING AND MANAGEMENT	(3,0)3	5	Compulsory
MISE04	TECHNICAL ELECTIVE IV	(3,0)3	6	Elective
UFRC01	UNIVERSITY ELECTIVE I	(3,0)3	4	Elective

2-4-6-8 SEMESTER				
COURSE CODE	**COURSE NAME**	**CREDIT**	**ECTS**	**COURSE TYPE**
COMN115	SOCIOLOGY	(3,0)3	5	Compulsory
COMN120	PRINCIPLES OF LAW	(3,0)3	6	Compulsory
COMN204	ETHICS IN PROFESSION	(3,0)3	5	Compulsory
MISY152	INTRODUCTION TO INFORMATION SYSTEMS	(3,0)3	7	Compulsory
UFLE02	FOREIGN LANGUAGE ELECTIVE II	(3,0)3	3	Elective
UHTC01	HISTORY	(2,0)2	2	Compulsory
UHTC02	TURKISH	(2,0)2	2	Compulsory
BFIN202	FINANCIAL ACCOUNTING II	(3,0)3	6	Compulsory
MISY212	SOFTWARE REQUIREMENTS ANALYSIS AND SPECIFICATION	(3,0)3	6	Compulsory
MISY214	PRINCIPLES OF OPERATING SYSTEMS	(3,0)3	6	Compulsory
MISY252	PROGRAMMING FOR MANAGEMENT INFORMATION SYSTEMS	(3,0)3	6	Compulsory
MISE01	TECHNICAL ELECTIVE	(3,0)3	6	Elective
COMN352	RESEARCH METHODS	(3,0)3	6	Compulsory
MISY304	HUMAN RESOURCES MANAGEMENT	(3,0)3	6	Compulsory
MISY306	HUMAN FACTORS IN COMPUTING	(3,0)3	6	Compulsory
MISY342	COMPUTER NETWORKS	(3,0)3	6	Compulsory
MISE03	TECHNICAL ELECTIVE III	(3,0)3	6	Elective
MISY404	MANAGEMENT INFORMATION SYSTEMS	(3,0)3	6	Compulsory
MISY412	INTERNET PROGRAMMING	(3,0)3	6	Compulsory
MISY450	GRADUATION PROJECT II	(3,0)3	8	Compulsory
MISE06	TECHNICAL ELECTIVE VI	(0,6)3	6	Elective
UFRC02	UNIVERSITY ELECTIVE II	(3,0)3	4	Elective

Laboratory and Equipment Capacity (if applicable)
No

Career Opportunities
Graduates of the Management Information Systems program are well-prepared to pursue diverse career paths at the intersection of business and technology. They can take on roles such as systems analysts, IT consultants, database administrators, business intelligence specialists, project managers, and software developers. Additionally, MIS graduates have the skills to work in decision support systems, digital transformation projects, and technology-driven innovation initiatives across private companies, public institutions, and consulting firms. With a strong foundation in both management and information systems, graduates are also well-positioned to pursue entrepreneurial ventures or continue their academic journey in advanced studies.

Contact Information

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MANAGEMENT INDORMATION SYSTEMS
COURSE CATALOGUE DESCRIPTIONS

1st Semester

UTEC01 University Elective I
The course focuses on providing exposure to different basic and advanced concepts of computing and Information Technology. Computer Hardware and Software Systems and Application Software will be discussed using a modern computing environment. The course covers word processing, basic and advanced features of office tools, spreadsheets as calculation, and introducing the basic functionality of Power point for presentations. The basics of file management, communication/network concept, software and protocols, electronic mail, videoconferencing, information access via the Web will be covered during the semester.

UTEC01 Foreign Language Elective I
This course is intended for academically oriented students and it aims to bridge the gap between general and academic English. For this goal, the course will develop skills required for academic study, including note-taking, essay writing, and giving effective presentations, as well as teaching strategies for undertaking research and dealing with unfamiliar academic vocabulary. In addition, the course aims at teaching the features of guided writing, reading strategies such as predicting, skimming, and scanning.

COMN104 Psychology
This course is a broad introduction to the field of psychology. Students explore the key figures, diverse theoretical perspectives, and research findings that have shaped some of the major areas

of contemporary psychology. This course also examines the research methods used by psychologists across these areas to study the origins and variations in human behavior.

COMN117 Mathematics

Aims of this course are to provide the basic concepts of mathematical applications and the basic purpose of business management. This course includes Algebraic expressions, real numbers, equations and inequalities, systems of equations. This course also includes Pascal's triangle, exponential numbers, logarithms, and linear geometry issues.

COMN112 Economics

This course introduces students to the key concept and topic of microeconomics such as opportunity cost, production possibility frontier, demand and supply, elasticity, utility, preferences, production, costs, perfect competition, monopoly.

COMN117 Introduction to Social Sciences

The main purpose of this course is to let students see how seemingly diverse disciplines intermingle — anthropology and economics, for example. In the end, students will be able to approach social issues with unbiased problem-solving skills.

2nd Semester

UHTC02 Turkish/Türkçe

Introduction to the grammar and structure of Turkish language, the changes and developments oral and written presentations. Reading and analyzing essays in Turkish literature. This course is designed specifically for Turkish-speaking students. International students take a different version of this course, COM106.

UHTC01 History/Tarih

The course provides a detailed exposure on the history of the construction of the Turkish Republic under the light of Kemal Atatürk's principles this course is designed for Turkish speaking students. COM108 is designed for non-Turkish speaking foreign students. The aim of the course is to introduce a brief history of Turkish Republic and Cyprus. Social, economic and political aspects and effects of Western Civilization on Turkey and Cyprus. Relations with Middle East.

UFLE02 Foreign Language Elective II

This course is intended for academically oriented students and it aims to bridge the gap between general and academic English. For this goal, the course will develop skills required for academic study, including note-taking, essay writing, and giving effective presentations, as well as teaching strategies for undertaking research and dealing with unfamiliar academic vocabulary. In addition, the course aims at teaching the features of guided writing, reading strategies such as predicting, skimming, and scanning.

COMN115 Sociology

The course makes an introduction to the discipline of sociology and gives the outline of the major sociologists and sociological approaches. The course intends to familiarize the participants with the theories of the following sociologists, sociological schools or writers relevant to sociology: Positivism (Comte and Spencer), Marx, Durkheim, Weber, Functionalism (Parsons), Frankfurt School (Horkheimer, Adorno, Marcuse), Structuralism (Foucault), Giddens, Habermas, Luhmann.

COMN204 Ethics in Profession
The course introduces the essential law and ethics topics in a business environment which are crucial for managing both internal and external environment of firms. The course covers contracts, sales, agency and employment, business organizations and some current business ethics issues. The course also stresses the global business and its relation to business ethics.

MISY152 Introduction to Information Systems
This course is designed to provide students with a foundational understanding of Information Systems (IS) as they apply to the computer industry. Topics will include Information Systems fundamentals; IS infrastructure; organizational and business strategies for Information Systems, Managing Information Systems; Information Systems for commerce and collaboration; business intelligence and Enterprise Information Systems; security, privacy and ethics for Information Systems

COMN Principles of Law
The course deals with the basics of law. It introduces the students the elements drawn from legal theory, legal philosophy as well as legal practice. It makes special references to Turkish law. It starts with the discussion of what law is and continues with the other rules of social conduct like moral and customary rules. It familiarizes students with legal concepts like "burden of proof" and methods of legal interpretation.

3rd Semester
BFIN201 Financial Accounting I
The course intends to provide an exposure to basic concepts of accounting. It covers the nature and purpose of accounting, accounting principles, introduction to a single entry and double entry system, preparation of journal, ledger and trial balance, simple and complex adjustments, preparation of worksheets related to purchases, sales, receivables, payables, inventories, cash control, property, plant and equipment. The course also includes preparation of final accounts viz. trade/manufacturing account, profit and loss account and balance sheet, simple and complex adjustments.

MISY205 Principles of Management
This is a comprehensive introductory course on the management process with particular emphasis on the skills, competencies, techniques and knowledge needed to successfully manage an organization. It focuses on entire organization to form a strategic vision, setting objectives crafting a strategy and then implementing it. It also investigates how organization develop and maintain a competitive advantage within a changing business environment influenced by political, economic, social, technological, legal and environmental factors. The course content is organized around the four functions of management; planning, organizing, leading and controlling, for systematic understanding of management related challenges and applying conceptual tools and techniques in analyzing, evaluating and addressing management issues.

COMN223 Macroeconomics

The course aims to explore the principles of macroeconomics. Introduction of the basic concepts of macroeconomics: calculation of GDP, analyzing the effects of employment, unemployment, inflation, investment savings, to the economy

MISY201 Principles of Marketing

The course introduces the essential principles of marketing (key concepts, methods of analysis, strategies and tactics) critical to managing profitable customer relationships in today's dynamic and allied environment. This course also stresses the marketing function's contribution to any organization.

COMN253 Statistics

The course covers the key definitions (describing data graphically and numerically), probability, important discrete probability distributions (Binomial, Hypergeometric, Poisson), important continuous probability distributions (Uniform, Normal, Exponential), sampling distributions of sample mean, sample proportion and sample variance, single population estimation (confidence interval estimates for the mean and proportion-Student's t-distribution) and two population estimation (confidence intervals for the paired difference of mean, proportion and variance-Chi-Square test).

4th Semester

BFIN202 Financial Accounting II

The course provides the advanced aspects of accounting on the areas of partnership firm accounting viz. formation, admission, withdrawal and dissolution of partnership firms, exposure to corporations' stockholders equity, identification of earnings per share, and dividends, long-term liabilities, bonds payables, marketable securities, analysis and interpretation of financial statements, importance of GAAP, exposure to analysis of company reports.

MISY214 Principles of Operating Systems

The history of the operating systems. The hardware and software components. Application Programming Interface. Computing environments. Process Management, Process operations, Process synchronization. Processor Scheduling Criteria and Algorithms (FIFO, RR, SJF, SRTF, PRIORITY, PREEMPTIVE, NONPREEMPTIVE ALGORITHMS). The Indefinite postponement, Deadlock prevention, detection, avoidance, recovery. The main memory, swapping, fixed partition multiprogramming, variable partition multiprogramming, paging, segmentation. The virtual memory, page replacement strategies (FIFO, LRU, OPT). Secondary Storage, Disk scheduling (First-Come-First-Served, Shortest-Seek-Time-First, SCAN, C-SCAN, FSCAN, N-Step SCAN, LOOK, C-LOOK). File Systems, Directories.

MISY252 Programming for Management Information Systems

This course contains the history of computers and programming. Introduction general steps in problem-solving concepts, programing terminology, algorithms and its applications. Problem solution, pseudocode, algorithms, flowcharts, data types, and control structures. A simple C program layout, syntax and rules. C language basics, native types, identifiers, declarations, variables, expressions, and assignments. Basic console input/output functions. Operators, unary,

binary, mathematical, relational, equality and logical, precedence and associativity rules, type conversions and casting. Statements, flow of control. Sequential structure. Selective structure, if-else statement. Repetitive structure, while loop, do-while loop, break/continue statements.

MISY212 Software Requirements Analysis & Specification

Introduce important software properties; security, maintenance, adaptability, robustness, safety, reliability, emergent properties, non-emergent properties. Software process steps; requirement analysis, specification, prototype, design, implementation, testing, validation and verification. Process models; waterfall, evolutionary, incremental, spiral component-based, agile processes, extreme programming, pair programming. Functional and non-functional requirements, system requirements, domain requirements, external requirements, open and closed interview, external requirements, constraints, organizational goals, project goals, stakeholders, life-cycle planning, responsibilities, feasibility study.

5th Semester

MISY303 Production Management

Production/operations management involves the integration of numerous activities and processes to produce products and services in a highly competitive global environment. This course considers the operations from a managerial perspective. We will consider key performance measures of operations (productivity, quality and response time) as well as important concepts for improving the performance of operations along these dimensions. At the end of the course students will have a basic understanding of the role production/operations management plays in business processes. Emphasis is given both to familiarization of various production processes and service systems, and to the analysis of problems arising in the management of operations.

MISY337 Database Management Systems

Foundations of a database-management system: view of data, data models, instances and schemas, data-definition and data-manipulation languages. Relational model: tables, tuples, attributes, primary and foreign keys, schema diagrams, relational algebra. Structured Query Language (SQL): built-in types, schema definitions, structure of an SQL query, queries on a single and multiple relations, as clause, string operations, ordering tuples, attribute specifications, where-clause predicates, set operations, null values, aggregate functions, aggregation with grouping, having clause, nested subqueries, set membership and comparison, test for empty relations and absence of duplicates, subqueries in the from-clause, with clause, scalar subqueries, modification of the database, join expressions, views, integrity constraints. Entity-Relationship (E-R) model: design process, entity sets, relationship sets, complex attributes, mapping cardinalities, participation constraints, E-R diagrams, reducing E-R diagrams to relational schemas, extended E-R features, E-R design issues, alternative notations.

OSHE201 Occupational Safety and Health

The principal aim of this course is to provide the theory and history of occupational health and safety and globally including the enforcement of laws that address occupational safety and health. In addition, students will gain an understanding on the roles and responsibilities of workers, unions and employers. This course also reviews other safety related issues and aspects of recognizing, evaluating, and understanding control of safety and health hazards in the workplace.

MISY315 Software Design and Architecture
Understanding the importance of software design, tools that are used. Using use cases and scenarios, use case diagrams, actors, extending and including use cases, marking system boundaries. System model; context diagram, multi-level Data flow diagram, sequence diagram, class diagram. Entity-relationship model diagrams, Software architecture models; client-server, layered, blackboard, pipe and filter, implicit invocation, batch and sequence. Design Pattern (creative, behavioral, structural): Singleton, façade, bridge, observer, mediator. Graphical User Interface, design details, error messages.

MISE02 Technical Elective II (Sustainable Development and Growth)
This course is designed to introduce students to some major challenges in today's sustainable development and help them gain a more holistic and realistic view of their country's situation in a global context. The topics cover some complex relationships among various aspects of development, including population growth, economic growth, improvements in education and health, industrialization and post-industrialization, environmental degradation, and globalization.

6th Semester

MISY304 Human Resource Management
The course intends to provide conceptual and application insights of contemporary human resource management practices viz. Recruitment, Selection, Training and Development, Induction, Motivation, performance evaluation and Termination. The course covers the practical implementation of HR practices in the real-life business situations which the business students ought to be proficient with.

MISE03 Technical Elective III (Entrepreneurship)
This course provides an understanding of the characteristics of the entrepreneur and the unique concepts of business ownership to the student who has a strong desire to start a business. Emphasis is placed on identifying and evaluating entrepreneurial opportunities by focusing on the student's entrepreneurial potential and creating a new business venture.

COMN352 Research Methods
This is an introductory course for undergraduate students to provide a guide to the research process and equip the students with the necessary knowledge and skills to undertake a piece of research from thinking of a research topic to writing a project report.

MISY342 Computer Networks
Goals, classification, features and uses of computer networks. Basics of data communication. Characteristics of communication channels. Main effects of transmission channels on received signals. Modes of transmission simplex, half-duplex, duplex. Purpose and types of modulation of transmitted signals. Multiplexing techniques frequency division multiplexing, time division multiplexing, statistical multiplexing, wave division multiplexing. Synchronous and asynchronous data transmission. Modems and their use for data transmission in the public switched telephone network. Digital subscriber lines. Layered network architecture basic concepts and notions. Reference models for architectures of computer networks. Switching techniques circuit switching, packet switching, message switching. ATM communication networks, their characteristics and operation. Local area networks (LANs), their scope, topologies and uses. Local area networks of

Ethernet type. The Internet architecture. TCP/IP family of protocols. IPv4 and IPv6 Protocols. Addressing on the Internet. Classes of IP addresses. ARP protocol. TCP and UDP protocols. Wireless LANs and techniques. Concepts and notions of IEEE 802.11 WLANs. Infrastructure and ad-hoc WLANs. Modes of operation of 802.11 WLANs. Transmission techniques for WLANs. Structure and characteristics of Global System for Mobile Communication (GSM).

MISY306 Human Factors in Computing

Historical context: the growth of HCI and GUI. The human: input-output channels, human memory, reasoning and problem-solving. The computer: text entry devices, positioning, pointing and drawing. The interaction: models of interaction, frameworks and HCI, ergonomics, interaction styles. Interaction design basics: the process of design, user focus, scenarios, navigation design, design focus, screen design and layout, iteration and prototyping. HCI in the software process: the software lifecycle, usability engineering. Design rules: principles to support usability, standards, guidelines. Implementation support: elements of windowing systems, using toolkits, user interface management. Evaluation techniques: goals, evaluation through expert analysis and user participation. Universal design: principles, multi-modal interaction, designing for diversity. User support: requirements of user support, approaches to user support.

7th Semester

MISY461 Strategic Planning and Management

The course aims at providing the advanced insights of strategic management perspective on key business decisions. The course primarily focuses on the corporate strategic planning process, strategy formulation, the impact of micro and macro environment on strategic decision making.

UFRC01 University Elective I (Leadership and Management)

In this course, an analysis of theoretical and practical knowledge is made. In this context, basic social and psychological factors associated with the concept of leadership and current theories will be explained and how theoretical knowledge can be applied in terms of leadership and management functions in organizations will be emphasized. The aim of the course is to provide students with a deep understanding of leadership and management concepts and to develop their own leadership skills.

MISY400 Summer Training

Students are encouraged to take part in industrial work/organizations relating to their fields of study. This is required as part of the fulfilment of the degree program. Students are required to complete a total 30 working days of Summer Training session after completing their third year of studies.

MISY410 Graduation Project I

4th academic year (final year) students in Management Information Systems department are required to prepare and present a graduation project (Graduation Project - Part I & II) under the supervision of a School member. Each student has to prepare a separate (or, as part of a team with two members) project. It is an extended exercise in the professional application of the skills and

experience gained in the undergraduate program. Topics will be chosen in consultation with School members. In this regard, MIS 410 (Graduation Project - Part I) course forms a preparation phase for MIS 450 Graduation Project - Part II and it involves a design project proposal. Students are expected to familiarize themselves with their projects, carry out literature survey and prepare materials/tools/methods, study components and relevant standards before the implementation phase in the following semester.

MISE04 Technical Elective IV (Brand Management)
Students will learn the important role of Branding. Several case studies will be discussed and student will be able to provide examples of international brand management.

MISE05 Technical Elective V (Network Security Theory)
Fundamentals of Computer security, Network security, Internet security. Security mechanisms, security services. Thread and attack differences. Access control and its elements; authentication, authorization, accountability. Security services; X800 and RFC2828. Authentication services; Peer entity authentication, data origin authentication. Common security attacks and countermeasures; Phishing, Man in the Middle attack, Replay attack, Web jacking, Spam, Blog spam. Specific security mechanisms, Encipherment, Digital signature, Access control, data integrity, authentication exchange, Traffic Padding, Routing control, notarization. Pervasive security mechanisms; Trusted functionality, security label, event detection, security audit trail, security recovery. A detailed model for network security and its working principle. Network access security model and its elements. Encryption, decryption and terminology. Cryptography, block cipher, stream cipher. Cryptanalytic attacks, viruses and related attacks. Authentication services; Kerberos and its working principle, X.509. Authentication services, Public key Infrastructure (PKI), Pretty Good Privacy (PGP).

MISY407 Software Project Management
Components and challenges of software management, dealing with people involved in project development, time management. Project management knowledge areas, project management process groups, organizational structures, Software development life cycle, standard models; waterfall, incremental, prototyping, spiral, agile, scrum, Proactive and reactive project management. Risk management and analysis, proactive and reactive risk management strategies, methods to identify and quantify risks, risk mitigation techniques, balancing risk management overhead. Planning, Project scheduling, project size estimation, Gantt charts, network diagrams, cost analysis, effort estimation, COCOMO, Documenting software projects, managing multiple teams in scheduling. Software management metrics; lines of code, function points, capability maturity model.

8th Semester

UFRC02 University Elective II (Environment and Sustainable Development)
Ecology and sustainability, biodiversity, urbanization, ecological succession, climate and biodiversity, sustaining biodiversity, sustaining resources and environmental quality: food production, water resources and pollution, mineral sources, energy sources, environmental hazards and human health, air pollution, ozone depletion, climate change, solid and hazardous wastes.

MISY404 Management Information Systems

This course focuses on the applications of information technology within organizations, particularly the acquisition, development, and implementation of computer-based information systems. It covers planning and the use of information systems by management. Various approaches to developing and building MIS, software tools, end user computing and information center's in planning strategies and management science.

MISY412 Internet Programming

This course introduces the core technologies, tools, techniques and languages needed for the design and implementation of static and dynamic web pages, as well as web applications. The topics cover; Hypertext Markup Language (HTML), tables, links, images, div, span; Cascading Style Sheets (CSS), managing fonts, color, borders, text properties, visibility and block structure; HTML forms, text input, checkbox, radio button, select box, submit; JavaScript; control structures, accessing elements, modifying DOM tree, functions, handling events; PHP programming, variables and control structures, working with HTML and PHP, using web forms to transfer data, database connection, list, insert, and delete entries, handling search and login.

MISY450 Graduation Project II

This course is the sequel to MIS 410. This course is designed to assist students in the completion of their graduate project. The expectation is that all students begin this course having already developed a proposal for the research in MIS 410 (Graduation Project I). Therefore, this course is designed to provide guidance in the final completion of the graduate project and to prepare students for the oral defence.

MISE06 Technical Elective VI (Small Business Management)

This course examines the possibilities, the challenges and the rewards of becoming an entrepreneur and/or a small business owner by presenting the tools to start and run a successful small business. It covers topics on foundations of entrepreneurship, creativity and developing business ideas, strategic management process in small firms, franchising, and developing feasibility analysis and forming business plans.