Information Systems

Introduction

In this internet-of-everything era, positioning of information systems in businesses has changed from secondary needs to primary one. A good investment of technology in a business might give many positive contributions to the company in winning the competitions. Technology couldn't be successfully implemented alone by itself; its implementation should be supported along with a readiness of new business process and also people aspect of the company, which the students will learn about these in the Information Systems study program. In this study program, students will also learn how to supply the business needs with a suitable development, utilization, and investment of information systems.

Vision

A study program of choice that excels in providing high-level Information systems education is specialized in business-IT, recognized internationally, and champions innovation.

Mission

The mission of Information Systems Department is to contribute to the global community through the provision of world-class education by:

1. Nurturing students and lecturers with creative and value-adding talents in Information Systems by creating a suitable environment.
2. Educating students in information systems, covering knowledge and skills in analyzing, designing and implementing information systems for improving business processes and to be able to create an innovative and valuable information systems solution, through intensive learning process, research activities and collaboration with global industries.
3. Providing integrated knowledge to pursue further studies and create outstanding professionals, entrepreneurs, and leaders for a global community.
4. Providing professional services in Information Systems with an emphasis on the application of knowledge to society.
5. Improving the quality of life of Indonesians and the international community through leveraging Information systems solutions.

Program Objective

The objectives of the program:

1. To provide students with a solid foundation of system development skills and knowledge that they will need as a system analyst.
2. To prepare students with skills and in depth knowledge of information systems related to business intelligence, e-business and strategic information systems.
3. To provide students with the ability to use applied business knowledge for specific industrial purposes.

Student Outcomes

After completing the study, graduates are:

1. Able to identify and formulate the root cause of system performance information through data analysis and information on business processes.
2. Able to identify the needs of the database for building information systems.
3. Able to design, create and manipulate and implement computer-based information systems independently or in groups through the study of information systems to develop a strategic plan at the level of small and medium organizations.
4. Able to design, create, manipulate and implement computer based information systems for new business model and processes in an organization at the level of small and medium-sized.
5. Able to communicate alternative solutions development and implementation of information systems based on theory either independently or in groups in writing, designing, and prototyping.
6. Able to perform management, integration and added value on the results of data analysis to produce high quality information to the organization's needs, especially in business management in retail.
7. Able to identify the needs and design the proposed business processes and ICT systems, considering the principles of management in business management in retail.
8. Able to perform a feasibility study and evaluation to produce the alternative solutions of information systems development for business management in retail.

Prospective Career of the Graduates

With the above-mentioned skills and knowledge, the Information Systems graduate is able to follow a career in:

1. Project Manager
2. Applications Development Manager
3. Information Center Manager
4. Operations Manager
5. Emerging Technologies Manager
6. Digital Marketing Manager
7. IS/IT Audit Manager
8. UX Manager
9. System Analyst
10. Business Analyst
11. IS/IT Auditor
12. IS/IT Consultant
13. Applications Programmer
14. Database Administrator
15. Business Process Specialist
16. UX Specialist
17. Webmaster
18. Web Designer

Curriculum

The Information Systems curriculum is designed and referred to the curriculum recommended by ACM and AIS, IS 2002 (Model curriculum and guidelines for undergraduate degree program in Information Systems), IS 2010 (Curriculum guidelines for undergraduate degree program in Information Systems), Computing Curricula 2005 and A Cooperative Project of ACM, AIS, IEEE-CS. In addition, the curriculum has been influenced by foreign universities with a reputation for quality Information Systems Study Programs.

The curriculum for the next four years consists of:

1. Information Systems, Business Process and Enterprise Systems.
2. Database, Information and Knowledge Management.
3. Information Systems Analysis and Design.
4. Programming, Testing, and Implementation.
5. Financial Accounting, Business Fundamentals, Statistics, Research Methodology.

Course Structure

Sem	Code	Course Name	SCU	Total
1	ACCT6174	Introduction to Financial Accounting	4	16
	ISYS6299	Information System Concept	4	
	ISYS6300	Business Process Fundamental	4	
	ISYS6225	Management Information Systems	4	
2	COMP6223	Introduction to Programming	2/2	16
	ISYS6304	Business Application Development	2/2	
	ISYS6306	Information Systems Analysis and Design	2/2	
	ISYS6302	Information System Development	2/2	
3	CHAR6019	Character Building: Pancasila	2	16
	ISYS6303	Introduction to Database Systems	2/2	
	STAT6111	Statistics	2	
	ISYS6305	Enterprise System	4	
	ENGL6163	English Professional	4	
4	CHAR6020	Character Building: Kewarganegaraan	2	14
	ISYS6310	Information Systems Project Management	4	
	ISYS6307	Data and Information Management	4	
	ISYS6313	Analytical Information System	4	
5	CHAR6021	Character Building: Agama	2	14
	ISYS6308	User Experience	2/2	
	ISYS6427	Testing and System Implementation	6	
	ISYS6314	Information System Security	2	
6	ISYS6311	Advanced Information System Analysis and Design	4/2	14
	ISYS6334	Information Systems Audit Fundamental	4	
	ENTR6081	Entrepreneurship	4	

Sem	Code	Course Name	SCU	Total
7	MGMT6170	Business Quantitative Method	4	16
	ISYS6317	Business Process Management	4	
	MKTG6125	Retail and Merchandising	4	
	ISYS6316	Enterprise Architecture	4	
8	ISYS6333	Data & Text Mining	4	14
	MKTG6126	Customer Relationship Management	4	
	STAT6112	Research Methodology	2	
	ISYS6318	e-Business Concept	4	
9	LANG6031	Indonesian	2	16
	ISYS6332	Data Warehouse	4	
	MGMT6160	Global Supply Chain Management	4	
	ISYS6428	Advanced Topics in Information Systems	6	
10	ISYS6323	Management Support System	4	10
	ISYS6327	Thesis	6	
Total Credit 146 SCU				

Students should pass all of these quality controlled courses as listed below:

No	Code	Subject	Grade minimal
1	CHAR6019	Character Building: Pancasila	B
2	ENTR6081	Entrepreneurship	C
3	ISYS6305	Enterprise System	C
4	ISYS6306	Information System Analysis and Design	C
5	ISYS6307	Data and Information Management	C
6	ISYS6310	Information Systems Project Management	C
7	ISYS6316	Enterprise Architecture	C
8	ISYS6332	Data Warehouse	C

Course Description

SUBJECT AREA: ACCT

ACCT6174 - INTRODUCTION TO FINANCIAL ACCOUNTING (4 Credits)

Learning Outcomes: Explain the accounting concepts and principles as a basis in the preparation of financial statements, and explain the stages in the accounting cycle; Identify the operations of merchandising company and the accounting cycle for merchandising company; Explain the concept and methods relating to inventories, cash, accounts receivable, liabilities, and equity of a company; Analyse the company's financial condition by using the information in cash flow statement; Analyse the information stated in the Financial Statement.

Topics: Accounting in Action and The Recording Process, Adjusting The Accounts, Completing The Accounting Cycle, Accounting for Merchandising Operations, Inventories, Fraud, Internal Control, Cash and Accounting for Receivables, Liabilities, Corporations: Organization, Share Transactions, Dividends, and Retained Earnings, Statement of Cash Flows, Financial Statement Analysis.

SUBJECT AREA: CHAR

CHAR6019 – CHARACTER BUILDING: PANCASILA (2 CREDITS)

Learning Outcomes: Explain Pancasila as the basis and the state ideology, Apply the values of Pancasila in action concerns, Analyze the ethical issues in developing science and technology, Analyze the issues of faith in God and tolerance in diversity, Analyze the problems of Pancasila democracy and justice.

Topics: Pancasila Education as Character Education, Pancasila as the State Ideology, Pancasila as the Ethical Basis in Developing Science and Technology, Faith in God, Just and Civilized Humanity, Human Rights, Multiculturalism, Cultures Interaction, Democratic Leadership, Social Justice.

CHAR6020 – Character Building: Kewarganegaraan (2 Credits)

Learning Outcomes: Explain the meaning of citizens, Explain the meaning of constitution, Explain the meaning of rights and obligation of citizen, Analyze the relation of Archipelago, social conflict and national integration, Describe the nature of national resilience, identity of Indonesia and nationalism, Describe how to participate in global citizen.

Topics: Introduction to Civics Education, The Others as Fellow Citizens, State and Constitution, The Rights of Citizens, The Archipelago of Indonesia, Diversity and Social Conflict, National Resilience, National Identity of Indonesia, Nationalism, Participation In Global Citizen.

CHAR6021 - CHARACTER BUILDING: AGAMA (2 Credits)

Learning Outcomes: Explain the nature of religions, Explain the knowledge of God through nature and human being, Explain the roles of religions for the world peace, Explain the conscience and the criticism to the religious formalism, Describe the influence of secularism to the religion, Apply the values of religion in the daily life.

Topics: Introduction to the CB Religion, Recognizing God by Nature, Recognizing God by Human Being, The Role of Religion for World Peace, Conscience, Criticism to the Religious Formalism, Religion and Secularism, Humble and Forgiving, Being a Religious Person, The Religious Meaning of Work.

SUBJECT AREA: COMP

COMP6223 - INTRODUCTION TO PROGRAMMING (2/2 Credits)

Learning Outcomes: Design and apply the right algorithms to solve problem, Understanding the basic of Java programming, Apply Java in solving problem, Apply basic sorting algorithms in solving problem, Understanding object oriented concept in Java.

Topics: Introduction to Algorithm and Java Programming, Elementary Programming (Data Type and Input / Output), Elementary Programming (Operators), Selection, Repetition and Jump Operation, Exception Handling, Methods, Array, Sorting, Introduction to Object Oriented.

SUBJECT AREA: ENGL6163

ENGL6163 - ENGLISH PROFESSIONAL (4 Credits)

Learning Outcomes: Demonstrate The Intermediate-level Academic English Listening skills of Basic Comprehension, Pragmatic standing, and Connecting Information (a minimum of iBT TOEFL Listening scaled score of 15 of scale 30), Demonstrate The Intermediate-level Academic English Reading skills in Finding Information, Basic Comprehension, and Reading to Learn (a minimum of iBT TOEFL Reading scaled score of 15 of scale 30), Demonstrate The Intermediate-level Business English speaking skills in terms of Delivery, Clarity and Appropriacy (a minimum of BINUS English Speaking scaled score of 15 of scale 30), Demonstrate The Intermediate-level

Academic English writing skills in terms of Introduction, Middle and Conclusion (a minimum of BINUS English Writing scaled score of 15 of scale 30).

Topics: Basic Comprehension, Vocabulary/Reference, Error Correction, Pragmatic Understanding & International Marketing, Error Connection & Risk, Details & Inferences, Connecting Information & Essay Writing, Error Correction & takeovers/mergers, Error Correction and Crisis Management, Inferences & Reading to learn.

SUBJECT AREA: ENTR

ENTR6081 – ENTREPRENEURSHIP (4 Credits)

Learning Outcomes: Identify personality of entrepreneurs and innovative business idea, Analize business model and business model environment, Generate the nature of entrepreneurship and the management of own project, Categorize the business model of the business, Construct the business plan of new business.

Topics: Entrepreneurship and The Personality of Entrepreneurship, Market Overview, Idea Generation and Business Model, Customer Insight and Developing Value Proposition and How to Get In Touch with Customer, Recognizing Business Keys and the Financial Aspects of the Business, Dealing with Expo and Market Segmentation, Personalized Your Business No-Redefining the Business Model, Defining the Core of the Business – Case Study: Market, Mapping the Sales Proces – Case Study: Value Proposition, Designing the Business Model and Identifying the Key Assumptions, How to Develop Product Plan and Product Design, Evaluating Business Model and Organizing the Business.

SUBJECT AREA: ISYS

ISYS6225 - MANAGEMENT INFORMATION SYSTEM (4 Credits)

Learning Outcomes: Use the tight correlation between business and technology; Manage the tight correlation among Management Information System infrastructure and business operations, business professionals, and business decision; Manage the critical relationship between the business with its employees, customers, suppliers, and partners.

Topics: Management Information Systems: Business Driven MIS, Decision and Processes: Value Driven Business, E-business: Electronic Business Value, Ethics and information Security: MIS Business Concerns, Infrastructure: Sustainable Technologies, Case Study 1: Best of the Best of the Best under 25, Networks: Mobile Business, Enterprise Applications: Business Communications, Data: Business Intelligence, System Development and Project Management: Corporate Responsibility, Project: Build Your Own Business, Case Study 2: Can Customer Loyalty be a Bad Thing?.

ISYS6299 - INFORMATION SYSTEM CONCEPT (4 Credits)

Learning Outcomes: Define the basic concepts of information systems; Explain the concepts of information system development; Illustrate the application of information systems in the business world.

Topics: Introduction to Information Systems, Organizational Strategy, Competitive Advantage, and Inf. Systems, Ethics and Privacy, Information Security, Data and Knowledge Management, Telecommunications and Networking, E-Business and E-Commerce, Wireless, Mobile Computing and Mobile Commerce, Social Computing, Information Systems within the Organization, CRM and SCM, Business Analytics, Acquiring Information Systems and Applications, Hardware and Software, Cloud Computing, Intelligent Systems.

ISYS6300 - BUSINESS PROCESS FUNDAMENTAL (4 Credits)

Learning Outcomes: Explain the concept of the organization include: core business, business strategy, business functions, customers, suppliers, partners and business process; Describe the relationship of business processes and business activities, operating events, information events and decision/management events, and REA modeling; Design the DFD, ERD and database models by using REA model approach; Implement the DFD and system flowchart to the revenue cycle, expenditure cycle, the production cycle, HRD cycle and general ledger and financial reporting; Elaborate the integration of functional IT applications in an enterprise.
Topics: Business Processes, Database Concept II, System Documentation, The Revenue Cycle, Internal Controls II, The Expenditure Cycle, The Production Cycle, The General Ledger and Financial Reporting Cycle, The HR Management and Payroll Cycle, Systems Development.

ISYS6302 - INFORMATION SYSTEM DEVELOPMENT (2/2 Credits)
Learning Outcomes: Explain the system analyst role and skills in developing the information system; Demonstrate the system development life cycle and feasibility study; Create the use case table and explain the use case analysis; Create a Data Flow Diagram (DFD) as a process model and ERD as data model; Design the system architecture, user interface, programs and data storage; Design a structure chart and data storage.
Topics: The Systems Analyst and Information Systems Development, Project Selection And Management, Requirements Determination, Use Case Analysis, Data Modelling, Process Modelling, The Design Phase, Design Strategy, and Architecture Design, User Interface Design, Program Design, Data Storage Design, Moving into Implementation, Transition to the New System.

ISYS6303 - INTRODUCTION TO DATABASE (2/2 Credits)
Learning Outcomes: Describe concepts, terminology, environment, and relational model in database system; Design database using structure data model; Construct query of SQL that suitable with the problem; Apply user role and right access to increase security in database system.
Topics: Introduction to Databases, Database Environment, Database Planning, Design and Administration, SQL – Data Definition, Security and Administration, SQL – Data Manipulation, Normalization, Entity Relationship (ER) Modelling, Enhanced Entity-Relationship Modelling, Data Warehousing Concepts.

ISYS6304 - BUSINESS APPLICATION DEVELOPMENT (2/2 Credits)
Learning Outcomes: Implement OO concepts: encapsulation, inheritance, polymorphism, interfaces, and abstract classes; Use data structure, file I/O and handle exceptions; Develop graphical user interfaces; Develop database application.
Topics: String Manipulation; Array data processing; Date Time Formating; Working with methods; File management; Handle exceptions; Data Structure; Collection in java; Graphic User Interface (GUI); Java database connectivity (JDBC).

ISYS6305 - ENTERPRISE SYSTEM (4 Credits)
Learning Outcomes: Explain the technical foundation of ERP systems and understand the implementation process; Explain information on the ERP development life cycle, the process of selecting software and vendors, how to manage an ERP implementation project, and how to understand the concept of metrics and evaluation in an organization; Analyze the issues dealing with people and organizational change, business process reengineering, change management, operational and post-implementation activities, and the role of ethics and globalization;

Analyze to integrate the two other enterprise-level applications, Supply Chain Management, and Customer Resource Management with ERP systems.

Topics: Overview Part 1, Systems Integration, Enterprise Systems Architecture, Development Life Cycle, Implementation Strategies and Vendor Selection, Operations and Post-implementation, Program and Project Management, Organizational Change and Business Process Reengineering, Global, Ethics, and Security Management, Supply Chain Management, Customer Relationship Management.

ISYS6306 - INFORMATION SYSTEMS ANALYSIS AND DESIGN (2/2 Credits)

Learning Outcomes: Explain Software Development and Systems Analysis and Design; Define User Requirement; Define User Requirement Using Activity Diagram; Draw the User Business Process Using Use Case Diagram; Create Class Diagram from current business process which it already has created in use case diagram; Create a Use Case Description and a Sequence Diagram and Activity Diagram from each Use Case Diagram.

Topics: The Role of System Analyst, From Beginning to End: An Overview of Systems Analysis and Design, Investigating System Requirements, Use Cases, The Traditional Approach to Requirements, Domain Modelling, Extending Requirements Model Ridgeline Mountain Outfitters.

ISYS6307 - DATA AND INFORMATION MANAGEMENT (4 Credits)

Learning Outcomes: Describe concepts, terminology in Distributed database system; Describe concepts, terminology in Object Oriented database system; Understand the role of web and network in database; Construct XML query of SQL that suitable with the problem; Describe concepts, terminology in OLAP.

Topics: Distributed DBMS concept and design, Adv concept, Replication and Mobile Database, Object Oriented DBMS concept, Object Oriented DBMS standard and system, Object Relational DBMS, Web Technology and DBMS, Data Structure and XML, XML, XML Database and Query, OLAP.

ISYS6308 - USER EXPERIENCE (2/2 Credits)

Learning Outcomes: Explain what the UX and its elements; Explain the benefit good UX and methods to plan, analysis, design and build UX; Identity and analyze the requirement based on research outcomes; Apply Design principle to prototyping an design UX; Create UX for a Business, base on design; Examine the quality of UX and integrated it to whole system.

Topics: Introduction UX, UX Design Methodology, Business Requirement, User Research, Creating Persona, Content Strategy, UX Design Principle, Site Maps and Task flow, Wireframe and Annotation, Prototyping, Design Testing with User, Transition: From design to development.

ISYS6310 - INFORMATION SYSTEMS PROJECT MANAGEMENT (4 Credits)

Learning Outcomes: Explain the need of project management; Plan the steps for project management; Identify problems that faced in project management; Utilize tools in preparing project Management; Calculate the cost, time and resources in project management.

Topics: An Overview of IT Project Management, The Business Case, The Project Charter, The Project Team, The Scope Management Plan, The Work Breakdown Structure, The Project's Schedule and Budget, The Risk Management Plan, The Project Communication Plan, The IT Project Quality Plan.

ISYS6311 - ADVANCED INFORMATION SYSTEM ANALYSIS AND DESIGN (4/2 Credits)

Learning Outcomes: Explain design activities in iterative and agile systems development lifecycle; Design a good user interface and system interface; Design application architecture and software; Identify problem activities and plan and monitor activities in iterative and agile systems development lifecycle; Design databases, system controls, and security; Explain implementation and deployment activities in iterative and agile systems development lifecycle.
Topics: Approaches to System Development, Essentials of Design and the Design Activities, Designing the User and System Interfaces, Object Oriented Design: Principle, Project Planning and Project Management, Use Case Realization 1, Use Case Realization 2, Database, Controls, and Security, Making the System Operational, Current Trends in System Development.

ISYS6313 - ANALYTICAL INFORMATION SYSTEM (4 Credits)
Learning Outcomes: Understand and able to explain the concepts of analytical information system; Understand and able to explain the concept of business analytics, techniques, types of analytics, analytics tools and its application cases; Understand and able to explain the concept of descriptive, diagnostic, predictive and prescriptive analytics. Analyze the differentiation between those types of analytics; Understand, explain, analyze, design and execute the concepts of analytics implementation and governance; Understand, explain, analyze and implement the concept of advanced analytics system and big data analytics.
Topics: Introduction to Analytical Information System, Analytics, Analysis and Information Continuum, Business Analytics and Its Tools, Descriptive, Diagnostic, Predictive and Prescriptive Analytics, Analytics Design, Analytics Governance, Analytics Implementation I, Analytics Implementation II, Real Time Analytics, Big Data, Hadoop and Cloud Computing.

ISYS6314 - INFORMATION SYSTEM SECURITY (2 Credits)
Learning Outcomes: Understand the technical aspect of information system security; Understand threat and risk of information system and know how to manage them; Understand the standard in information system security.
Topics: Information System Security, Malicious Attacks, Threats, and Vulnerabilities, Protection mechanism: Access Controls, Cryptography, Network Security, Malicious code and Activity, Security Policy and Personnel, Risk management: identifying and Assessing Risk, Risk management: Controlling risk, Auditing, Testing and Monitoring, Security management model and standard.

ISYS6316 - ENTERPRISE ARCHITECTURE (4 Credits)
Learning Outcomes: Describe how EA helps integrate strategy, business, and technology; Demonstrate to design of the EA Cube Framework; Use the purpose of summaries of the current and future architecture; Demonstrate to design enterprise architecture management plan.
Topics: An Overview of EA, The Structure and Culture of Enterprise, The Value and Risk of Creating an EA, The Implementation Methodology, Enterprise Architecture Artifacts, The Analysis and Documentation Framework, The Components and Artifacts, Developing Current Architecture Views, Developing Future Architecture Views, Developing an Enterprise Architecture Management Plan.

ISYS6317 - BUSINESS PROCESS MANAGEMENT (4 Credits)
Learning Outcomes: Explain concept of business process management and architecture; Identify activities for each phases in BPM Framework; Propose the outputs for each phases in BPM Framework.

Topics: Overview of Business Process Management, 7FE Framework Overview, Foundations Phase, Enablement Phase, Launch Pad Phase, Understand Phase, Innovate Phase, People Phase, Develop Phase & Implement Phase, Realize Value Phase & Sustainable Performance Phase.

ISYS6318 - E-BUSINESS CONCEPT (4 Credits)

Learning Outcomes: Explain the concept of e-Business, Describes the development context of e-Business, Explain aspects of e-business, technology and infrastructure, such as e-Business Platform server, Describes e-Business solutions Package.

Topics: Introduction to E-business, Evolution of e-Business, E-Business Development, Forwardness Organization / Company for e-Business, Framework for e-Business Infrastructure and e-Business Strategy, Market for e-Business, ERP (Enterprise Resource Planning), SCM (Supply Chain Management) and E-SCM, CRM (Customer Relationship Management) and E-CRM, EI (Enterprise Application).

ISYS6323 - MANAGEMENT SUPPORT SYSTEM (4 Credits)

Learning Outcomes: Explain the basic concept of Management support systems; Explain management support systems Technologies and tools; Analyze problems related to management support systems for business; Propose a utilization of management support systems for business.

Topics: Management Support Systems and Business Intelligence, Decision Making, Systems, Modeling, and Support, Decision Support Systems Concepts, Methodologies, and Technologies: An Overview, Data Mining for Business Intelligence, Data Warehousing, Business Performance Management, Group Support Systems, Knowledge Management, Management Support Systems: Emerging Trends, Management Support Systems: Impact and Issues.

ISYS6327 – THESIS (6 Credits)

Learning Outcomes: Define the research problems, purpose and scope of research; Define the basic theories and concepts of information systems; Analyze the needs of data and requirements of problems; Design a proposed solutions for the problems.

Topics: Outlines Discussion, Theories Review, Current Condition Analysis and Data Gathering.

ISYS6332 - DATA WAREHOUSE (4 Credits)

Learning Outcomes: Identify the basic concepts, components and architecture of data warehouse; Explain the requirements and how to design data warehouse; Describe the advantages of data warehouse utilization; Analyze data warehouse design and implementation strategy and the reason why data warehouse is the suitable solution.

Topics: Evaluation of Decision Support Systems, The Data Warehouse Environment, The Data Warehouse and Design, Granularity in the Data Warehouse, The Data warehouse and Technology, The Distributed Data Warehouse, External/Unstructured Data and the Data Warehouse, Migration to the Architected Environment, EIS, ERP, Data Warehouse, and the Web, Data Warehouse Design and Building Review.

ISYS6333 - DATA AND TEXT MINING (4 Credits)

Learning Outcomes: Explain the basic concepts of data mining and text mining techniques; Analyze collection of data, text, and techniques for pre-processing the data and text before mining; Analyze case studies and design

mining techniques to solve problems by extracting knowledge from data and text; Analyze trends and application related to data and text mining.

Topics: Introduction/Overview of Data Mining and Getting to Know Your Data, Data Pre-processing, Classification: Basic Concepts - Decision Tree Induction, Rule-Based Classification, and Bayes Classification Methods, Mining Frequent Patterns, Associations, Correlations, and Cluster Analysis: Basic Concepts and Methods, Outlier Detection, Data Mining Trends and Research Frontiers, Introduction of Text Mining, Text mining Pre-Processing Technique, Categorization, Clustering, and Information Extraction, Text Mining Application.

ISYS6334 - INFORMATION SYSTEMS AUDIT FUNDAMENTAL (4 Credits)

Learning Outcomes: Define the information system auditing and its control; Explain the information system auditing and its part; Perform the information system auditing in system development life cycle process; Analyze the information system auditing on financial reporting system.

Topics: Auditing and Internal Control, Auditing IT Governance Controls, Security Part I: Auditing Operating Systems and Network, Security Part II: Auditing Database Systems, Systems Development and Program Change Activities, Transaction Processing and Financial Reporting Systems Overview, Introduction to Computer-Assisted Audit Tools and Techniques, Data Structures and CATTs for Data Extraction, Auditing the Revenue Cycle, Auditing the Expenditure Cycle.

ISYS6427 - TESTING AND SYSTEM IMPLEMENTATION (6 Credits)

Learning Outcomes: Explain the foundation of testing project; Design the testing management plan for a software; Design the testing implementation plan for a software; Design the software implementation plan; Design the project closure and evaluation.

Topics: Foundation for Testing Project, Test Management – Organization, Test Management – Planning, Test Design, Bug Management, Controlling and Monitoring Testing, Template and Models in Test Management, Test Management – Closing, Implementation, Project Closure and Evaluation.

ISYS6428 - ADVANCED TOPICS IN IS (6 Credits)

Learning Outcomes: Report applied topics in information system for organization; Proposed applied information system tools/technology for organization.

Topics: Introduction to Advanced Topics in IS, Applied Topic in Information System, Paper Writing for Applied Topics in IS.

SUBJECT AREA: LANG

LANG6031 – INDONESIAN (2 Credits)

Learning Outcomes: Mengidentifikasi kesalahan diksi dan ejaan dalam kalimat, Membuat paragraf akademik dengan diksi dan kalimat efektif, Menyusun karangan ilmiah sederhana.

Topics: Arti dan Fungsi Bahasa, Sejarah, Perkembangan, Fungsi dan Kedudukan Bahasa Indonesia, Ragam Bahasa, Ejaan Yang Disempurnakan (EYD), Diksi dan Definisi, Kalimat Efektif, Paragraf Akademik, Jenis dan Sistematika Karangan ilmiah, Teknik Pengutipan dan Penulisan Sumber Referensi, Presentasi Ilmiah.

SUBJECT AREA: MGMT

MGMT6160 - GLOBAL SUPPLY CHAIN MANAGEMENT (4 Credits)

Learning Outcomes: Explain the concept of Supply Chain Management (SCM); Applying the concept of Supply Chain practically; Analyze the concept of Supply Chain Management to solve economic and business problems.
Topics: Supply Chain Management, Global Dimension of supply chain, Role Of Logistic in Supply Chain, Supply chain performance Measurement and Financial, Supply Chain technology - Managing information Flow, Demand Management, Order management and customer service, Distribution - managing fulfillment operations, Sourcing materials and services, Managing reverse flows in the supply chain, Strategic challenges and charge for supply chains.

MGMT6170 - BUSINESS QUANTITATIVE METHOD (4 Credits)
Learning Outcomes: Explain the concept of quantitative business analysis; Apply mathematic concept properly and mathematical concept in solving business problem; Analyze the mathematic methods to solve economic and business problems.
Topics: Introduction to Quantitative Analysis, Linear Programming Models, Graphical and Computer Methods, Linear Programming Application, Transportation and Assignment Methods, Inventory Control Models, Forecasting Models, Waiting Line and Queuing Theory Models, Project Management, Markov Analysis, Decision Analysis, Simulation Modelling.

SUBJECT AREA: MKTG
MKTG6125 - RETAIL AND MERCHANDISING (4 Credits)
Learning Outcomes: Describe the world of retailing; Analyze the retailing strategy; Apply the concept of merchandise management and store management.
Topics: Introduction to The World of Retailing, Types of Retailers & Multichannel Retailing, Customer Buying Behaviour & Retail Market Strategy, Retail Locations, Information System & Supply Chain Management, Customer Relationship Management & Managing The Merchandise Planning Process, Buying Merchandise & Retail Pricing, Retail Communication Mix & Managing The Store, Store Layout, Design & Visual Merchandising, Customer Service.

MKTG6126 - CUSTOMER RELATIONSHIP MANAGEMENT (4 Credits)
Learning Outcomes: Describe conceptual foundation of customer relationship management (CRM); Describe analytical customer relationship management (CRM) tools; Explain strategic customer relationship management (CRM); Explain operational customer relationship management (CRM).
Topics: Strategic Customer Relationship Today, Relationship Marketing and the Concept of Customer Value, Strategic CRM, Implementing the CRM Strategy, Customer Analytics, Data Mining, Using Databases, Software Tools and Dashboard, Loyalty Programs, Design and Effectiveness, Campaign Management, CRM issues in The Business-to-Business Context, Customer Privacy Concerns and Privacy Protective Responses.

SUBJECT AREA: STAT
STAT6111 - STATISTIC (2 Credits)
Learning Outcomes: Explain the data and statistics; Calculate the statistical measurements; Interpret the results of statistical measurements; Apply statistical method to the real problem; Analyze the suitable decision from statistical method solution.

Topics: Introduction: Data and Statistics; Introduction to Probability; Continuous Probability Distributions; Interval Estimation; Analysis of Variance; Simple Linear Regression; Hypothesis Tests; Sampling and Sampling Distributions; Discrete Probability Distributions; Descriptive Statistics.

STAT6112 - RESEARCH METHODOLOGY (2 Credits)

Learning Outcomes: Describe the basics of research methodology and the research report; Choose appropriate sampling and research design; Construct questionnaires, measurements and scaling, and research proposal; Interpret the results of statistics calculation.

Topics: Introduction to Research Methodology, Problem Definition, Qualitative Research Tools, Survey Research, Measurement and Scaling Concepts, Sampling Design and Procedures, Basic Data Analysis, Communicating Research Results.