

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. We produce graduates with international qualifications.

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 through the study of information systems to develop a strategic plan at organizations.
4. Able to design, create, manipulate and implement computer based-based information systems for new business model and processes.
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 in every business functions in the organization.
7. Able to provide suggestions related to the design of systems and information technology and communication, and its utilization to support the growth and development of business organizations in the digital world.
8. Able to evaluate the integration of business processes and information systems in every business function of the organization, to generate alternative suggestion for the development of information systems in the organization.
9. Able to solve problems with inter-discipline approach.

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. -

Course Structure

Sem	Code	Course Name	SCU	Total
1	ACCT6174	Introduction to Financial Accounting	4	20
	ISYS6299	Information System Concept	4	
	ISYS6300	Business Process Fundamental	4	
	COMP6598	Introduction to Programming	4	
	ISYS6505	Information System Development	4	
2	CHAR6019	Character Building: Pancasila	2	20
	ISYS6305	Enterprise System	4	
	MGMT6072	Introduction to Management and Business	4	
	ISYS6506	Information Systems Analysis and Design	6	
	ISYS6310	Information Systems Project Management	4	
3	CHAR6020	Character Building: Kewarganegaraan	2	22
	ISYS6513	Database System and Management	6	
	ISYS6318	E-Business Concept	4	
	LANG6031	Indonesian	2	
	ISYS6507	Testing and System Implementation	4	
	ISYS6509	User Experience	4	
4	ENTR6081	Entrepreneurship	4	22
	CHAR6021	Character Building: Agama	2	
	ISYS6514	Business Application Development	6	
	STAT6145	Business Statistics	6	
	ISYS6319	Knowledge Management	4	
5	ISYS6515	Research Methods in Information Systems	4	20
	ISYS6313	Analytical Information System	4	
	ISYS6320	Social Informatics	4	
	ISYS6317	Business Process Management	4	
	ISYS6516	Information System Security	4	
6	Minor Program		16	16
7	ISYS6332	Data Warehouse	4	20
	ISYS6316	Enterprise Architecture	4	
	ENGL6163	English Professional	4	
	ISYS6312	IS Strategy, Management and Acquisition	4	
	ISYS6517	Advanced Topics in Information Systems	4	
8	ISYS6327	Thesis	6	6
			Total Credit 146 SCU	

Minor Program (6th Semester):

-) Student will take one of minor program track. See minor scheme for the tracks detail.

Minor Track Scheme

Track	1 st Period				2 nd Period			
	BM	AF	IS	CS	BM	AF	IS	CS
1	V				V			
2				V				V

Notes:

- BM : Business Management Minor Program
- AF : Accounting and Finance Minor Program
- IS : Information Systems Minor Program
- CS : Computer Science Minor Program

Notes:

Student will take one of Minor Program tracks

Minor Program Track

Code	Course Name	SCU	Total
Minor Program 1st Period			8
ISYS6519	Introduction to Business Process	4	
ISYS6520	E-Business Analyze and Design	4	
Minor Program 2nd Period			8
ISYS6521	Knowledge Management Fundamentals	4	
ISYS6522	IS Project Management Planning	4	

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

No	Course Code	Course Name	Minimal Grade
1	CHAR6019	Character Building: Pancasila	B
2	ENTR6081	Entrepreneurship	C
3	ISYS6305	Enterprise System	C
4	ISYS6506	Information Systems Analysis and Design	C
5	ISYS6310	Information Systems Project Management	C
6	ISYS6513	Database System and Management	C
7	ISYS6320	Social Informatics	C
8	ISYS6316	Enterprise Architecture	C

Course Descriptions

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

COMP6598 – INTRODUCTION TO PROGRAMMING (4 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; Loops; Exception Handling; Methods; Array; Sorting; Introduction to Object Oriented.

SUBJECT AREA: ENGL

ENGL6163 – ENGLISH PROFESIONAL (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, Analyze 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

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.

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.

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.

ISYS6312 - IS STRATEGY, MANAGEMENT AND ACQUISITION (4 Credits)

Learning Outcomes: Understand the key strategic issues facing managers seeking to deploy and exploit enterprise information technology and systems and issues behind the "IT productivity paradox"; Explain the impact of the external environment context on the strategic use of IT in organization; Explain about the role enterprise information systems as enablers of organizational transformation; Explain about the importance of managerial IT competence in managing the design, implementation, and exploitation of IT systems; Explain about the key IS/IT resources that must be assembled and deployed in order to derive IT performance benefits; Explain about the actions that managers should take to build organizational IS/IT capability.

Topics: The Information Systems Strategy Triangle, Strategic Use of Information Resources, Organizational Strategy and Information System, Information System and the Design of Work, Information System for Managing Business Processes, Architecture and Infrastructure, Information Systems Sourcing, The Business of IT, Governance of The Information System Organization, Knowledge Management.

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.

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).

ISYS6319 - KNOWLEDGE MANAGEMENT (4 Credits)

Learning Outcomes: Understand the knowledge management concepts; Understand how knowledge management applied and the management; Able to apply knowledge on information gathering and processing; Able to apply knowledge on management concept; Able to evaluate the effectiveness of knowledge management implementation.

Topics: Knowledge Management, Knowledge Management Cycle, Knowledge Management Models, Knowledge Capture and Codification, Knowledge Sharing and Communities of Practice, Knowledge Application, Knowledge Management Tools, Strategy and Metrics, Knowledge Management Organization, Future Challenges.

ISYS6320 - SOCIAL INFORMATICS (4 Credits)

Learning Outcomes: Discuss why social media is important; Illustrate how to professional capability at the digital frontier; Demonstrate using digital and social media.

Topics: Gargantuan and growing: the digital economy, Six damaging myths about social media, Mind-shift: from 'so what' to 'social' The factors of anti-social mindset, The high cost of social absenteeism, Double jeopardy: Why you can not to be there, Professional development at digital frontier, Why you must own digital and social media assets and Set the bar: Social media benchmark, Twitter: The global brain index, Lock in LinkedIn: A new, global business lunch, SlideShare: It is pump class for powerpoint.

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.

ISYS6505 – INFORMATION SYSTEM DEVELOPMENT (4 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 and 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.

ISYS6506 – INFORMATION SYSTEMS ANALYSIS AND DESIGN (6 Credits)

Learning Outcomes: Explain the methodology in Software Development Life Cycle; Define User Requirements; Create Modeling Tools for Documenting the Requirements; Define Design Activities; Create Documentation for Design Activities; Define Implementation and Deployment Activities.

Topics: From Beginning to End: An Overview of Systems Analysis and Design, Project Planning and Project Management, Investigating System Requirements, Modelling the Functional Requirements, Modelling the Structural Requirements, Essential of Design, Use Case Realization, Designing the User Interfaces, Designing the Database, Implementation and Deployment Activities.

ISYS6507 – TESTING AND SYSTEM IMPLEMENTATION (4 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.

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, Others players in Testing Project, Review for Testing Project, Implementation.

ISYS6509 – USER EXPERIENCE (4 Credits)

Learning Outcomes: Explain what the UX and its elements; Explain the benefit good UX and methods to plan, analysis, design and build UX; Identify and Analyse the requirement based on research outcomes; Apply Design principle to prototyping an design UX; Create UX for a Business, based 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 Taskflow, Wireframe and Annotation, Prototyping, Design Testing with User, Transition: From design to development.

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

MGMT6072 – INTRODUCTION TO MANAGEMENT AND BUSINESS (4 Credits)

Learning Outcomes: Describe the principles of management, doing and managing business in a global environment, making decisions, business environment, economic condition, social responsibility in business and basic forms of business ownership; Explain challenges for the global manager, the decision making process, setting goals and plans, competitive strategies and mechanistic and organic structure, production processes, marketing and financial management; Analyze goals and plans, the strategic management process, contemporary organizational design, the changing workplace, group development, and current issues in motivation, leadership, type of control, marketing mix and financial management; Apply innovation process, workplace diversity, effective teams and interpersonal communication, contemporary theories of motivation and leadership and tools for measuring organizational, different markets, financial planning and function of securities markets.

Topics: Foundations of Management and Organization in Global Management, Foundations of Planning and Strategic Management, Foundations and Contemporary of Organizational Design and Change and Innovation, Leadership and Motivation, Communication and Foundations of Control, Understanding How Economics Affects Business and Socially Responsibility Behavior, How a Form A Business and Entrepreneurship Starting a Small Business, Production and Operations Management, Marketing: Helping Buyer Buy, Financial Management.