# Information Systems

### Introduction

The need for Information technology in the business industry has shifted into an environment that is more outward looking in order to complete in the free market. Information Technology is closely related to Information Systems in their joint support of the organization. They facilitate the smooth running of the whole organization and strengthen its competitiveness.

Information systems as a discipline make positive contribution to organizations, especially in information era, where the information accessed and distributed easily. Information systems helps organization in managing data as an asset, that data collected and presented by information systems could be use for problem solving and management decisions making.

The Information Systems Study Program was founded to meet the demand for skilled human resources in the field of information systems. The scope of study in the Program includes Information Systems: information systems development including information systems analysis, design and implementation (programming), management information systems, enterprise systems, database, and IS project management.

#### Vision

A study program of choice that excels in providing high-level Information system education, is specialized in business-IT, recognized internationally, and champions innovation. We produce graduates with international qualifications.

#### Mission

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

- 1. Fostering students and lecturers to become a creative and value-adding talents in Information System by creating a suitable environment.
- 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 system solution, through intensive learning process, research activities and collaboration with global industries.
- 3. Providing strategic integrated knowledge to pursue further studies and create outstanding professionals, entrepreneurs, and leaders for a global community
- 4. Providing professional services in Information System 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 system solutions.

#### **Program Objective**

The objectives of the program are :

- 1. To provide students with a strong foundation of system development skills and knowledge that they will need as an information systems professional, and improve lecture skills and knowledge in information systems.
- 2. To provide students with skills and in depth knowledge of information systems related to business intelligence, digital business and strategic information systems.

- 3. To provide students with the ability to use applied business knowledge for specific industry purposes.
- 4. To educate the community about the usage and implementation of information systems.
- 5. To provide community with skills and knowledge by using information system solutions.

#### **Graduate Competency**

At the end of the program, graduates will be able to :

- 1. Graduates will be able to illustrate an understanding of Information System Framework.
- 2. Graduates will be able to analyze information requirements and business processes.
- 3. Graduates will be able to design systems that are aligned with organizational goals.
- 4. Graduates will be able to manage and integrate data to produce good quality information.
- 5. Graduates will be able to analyze, design, implement and evaluate strategic corporate information systems.
- 6. Graduates will be able to analyze, design and implement E-business technology and applications.
- 7. Graduates will be able to deploy business application effectively.
- 8. Graduates will be able to analyze accounting information and business processes requirements.
- 9. Graduates will be able to evaluate accounting process in industry specifically.
- 10. Graduates will be able to calculate IT investment based on IT best practices in the industry.
- 11. Graduates will be able to construct an information technology budget and portfolio for an enterprise and assess information technology investment performance.
- 12. Graduates will be able to recommend integrated business systems.
- 13. Graduate will be able to demonstrate knowledge necessary to provide information system (IS) audit services in accordance with IS audit standards, guidelines and best practices to assist the organization in ensuring that its information technology and business systems are protected and controlled.
- 14. Graduate will be able to demonstrate knowledge of protection the information assets, business continuity and disaster recovery in ensuring confidentiality, integrity, availability of information assets and timely resumption of IT services while minimizing the business impact.
- 15. Graduates will be able to analyze financial and valuation of information technology.

### **Prospective Career of the Graduates**

Graduates will have the necessary skills to work as:

- 1. System Analyst
- 2. Business Analyst
- 3. Business Process Analyst
- 4. E-Business Specialist
- 5. ERP Specialist
- 6. IT Architect
- 7. IT Consultant
- 8. System Designer
- 9. Database Administrator
- 10. Database Analyst
- 11. Data Scientist
- 12. User Experience Designer
- 13. IT/IS Consultant
- 14. Application Developer
- 15. Web-Developer/Web-Designer

- 16. Internal IS/IT Auditor
- 17. IS Risk Management and Assurance Advisor
- 18. External IS/IT Auditor
- 19. IS Security Consultant
- 20. System analyst, System designer, or System development project team leader
- 21. Business analyst or business consultant
- 22. Accounting Information Systems Specialist or Information specialist
- 23. Information Systems Consultant
- 24. Management development program in a service, commerce, or industry
- 25. Financial evaluator or controller in a public company
- 26. Working in government institution or non-profit organization
- 27. Instructor or lecturer in the education institution
- 28. Working in research area
- 29. Develop entrepreneurship

#### Curriculum

The Information Systems Study Program curriculum is designed in such a way as to refer 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 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 therefore 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, Statistics, Research Methodology.
- 6. Concentration Subject: Strategic Information System, Business Intelligence, E-Business, Applied ERP, Applied Database, Accounting Information Systems, and Information Systems Audit.

Sem	Code	Course Name	SCU	Total
	ACCT6133	Introduction to Financial Accounting	4	
	ISYS6186	Business Process Fundamental	4	
	ISYS6093	Information System Concept	4	
1	STAT6081	Statistics	2	20
	COMP6178	Introduction to Programming	2/2	20
	English Unive	rsity Courses I		
	ENGL6128	English in Focus	2	
	ENGL6130	English for Business Presentation	2	
	CHAR6013	Character Building: Pancasila	2	
	ISYS6123	Introduction to Database Systems	2/2	
2	ISYS6188	Information Systems Analysis and Design	2/2	21
	ISYS6189	Management Information System	4	
	ISYS6197	Business Application Development	2/2	

#### **Course Structure**

Sem	Code	Course Name	SCU	Total
	LANG6061	Indonesian	1	
	English Unive	rsity Courses II		
	ENGL6129	English Savvy	2	
	ENGL6131	English for Written Business Communication	2	
	CHAR6014	Character Building: Kewarganegaraan	2	
	ISYS6126	Enterprise System	4	
	ENTR6003	Entrepreneurship I	2	
3	ISYS6209	User Experience	2/2	22
	ISYS6264	Testing and System Implementation	4	
	STAT6021	Research Methodology	2	
	ISYS6198	Data and Information Management	4	
	CHAR6015	Character Building: Agama	2	
	ISYS6163	Advanced Information System Analysis and Design*	4/2	
	ISYS6256	Information Systems Project Management	4	
	Streaming : Bu	usiness Intelligence		
	ISYS6283	Business Intelligence	4	
	ISYS6210	Data Visualization	2	
	ISYS6190	Advance in Data & Information Management	4	
	Streaming : St	rategic Information System		
	ISYS6146	Information System Security	2	
	ISYS6206	IS Strategy, Management and Acquisition	4	
	ISYS6284	Analytical Information System	4	
	Streaming : e-	Business		
	ISYS6211	Web Based Application Development	2/2	
	ISYS6285	Digital and New Media	2	
	ISYS6204	e-Business Design	4	
	Streaming : Ap	oplied ERP		
4	ISYS6146	Information System Security	2	22
	ISYS7158	Applied ERP I	4	
	ISYS6206	IS Strategy, Management and Acquisition	4	
	Streaming : Ap	oplied Database		
	ISYS6283	Business Intelligence	4	
	ISYS6210	Data Visualization	2	
	ISYS7155	Applied Database I	4	
	Streaming : Ac	ccounting Information Systems		
	FINC6001	Financial Management	4	
	ISYS6015	Accounting Information Systems Analysis and Design	4	
	ISYS6336	Services Information System	2	
	TAXN6019	Taxation	4	
	Streaming : In	formation Systems Audit		
	ISYS6216	Computer Assisted Audit Tools & Techniques I	2	
	ISYS6340	Information System Investigation	4	
	ISYS6341	Information System Audit	4	
	ISYS8108	Knowledge Management	4	
5	ENTR6004	Entrepreneurship II	2	24
	ISYS6191	Advanced in Business Application Development*	2/4	

Sem	Code	Course Name	SCU	Total
	Streaming: Bu	siness Intelligence	·	
	ISYS6200	Data Warehouse	4/2	
	ISYS6199	Data & Text Mining	4	
	ISYS6196	Business Analytics	2	
	Streaming : St	rategic Information System		
	ISYS6205	Enterprise Architecture	4	
	ISYS8066	Business Process Management	4	
	ISYS6202	Social Informatics	4	
	Streaming : e-	Business		
	ISYS6187	Business Web Solution	4	
	ISYS6289	Collaborative Computing	4	
	ISYS6203	Mobile Applications Development	2/2	
	Streaming : Ap	oplied ERP		
	ISYS6205	Enterprise Architecture	4	
	ISYS7159	Applied ERP II	2	
_	ISYS7160	Applied ERP III	2	
5	ISYS7161	Applied ERP IV	2	24
	ISYS7162	Applied ERP V	2	
	Streaming : Ap	oplied Database		
	ISYS6201	Data Warehouse and Data Mining	4	
	ISYS7156	Applied Database II	4	
	ISYS7157	Applied Database III	4	
	Streaming : Accounting Information Systems			
	ACCT6010	IT Cost Management	4	
	ACCT6013	Cost Accounting	4	
	Streaming : Inf	formation Systems Audit		
	ISYS6342	Information System Control	4	
	ISYS6343	Information System Quality Assurance	4	
	ISYS6353	IT Governance	4	
	ISYS6266	Business Continuity and Disaster Recovery	2	
	ISYS6339	Computer Assisted Audit Tools & Techniques II	2	
	ISYS7052	IS Risk Management	4	
6	Enrichment Pr	ogram I	15	15
7	Enrichment Pr	ogram II	16	16
8	ISYS6117	Thesis	6	6
			TOTAL CRE	DIT 146 SCU

\*) Entrepreneurship embedded

English University Courses:

## Enrichment Program I (6<sup>th</sup> Semester) & Enrichment Program II (7<sup>th</sup> Semester):

-) Student will take one of enrichment program tracks (off campus).

<sup>-)</sup> For 1<sup>st</sup> Semester : English University Courses I, student with score Binus University English Proficiency Test less than 500 will take English in Focus, and student with score test greater than or equal to 500 will take English for Business Presentation

<sup>-)</sup> For 2<sup>nd</sup> Semester: English University Courses II, student with score Binus University English Proficiency Test less than 500 will take English Savvy, and student with score test greater than or equal to 500 will take English for Written Business Communication

## **Enrichment Track Scheme**

Track			Seme	ster 6					Seme	ster 7		
Track		RS	ENTR	CD	SA	*etc	Ι	RS	ENTR	CD	SA	*etc
1			v						v			
2				v			v					
3					v		v					
4		v					v					
5	v						v					
6	v							v				
7	v									v		
8	v										v	
Notes: I	: Inte	ernship	)									

RS : Research

ENTR : Entrepreneurship

CD : Community Development

SA : Study Abroad

\*etc : Department specific needs

Notes:

Student can choose one of the available tracks

# **Enrichment Internship Track**

Code	Course Name	SCU	Total	
Enrichment Program I				
ISYS6215	Experience in Industry	8	15	
COMM6225	Business Communication	3	15	
ISYS6192	Requirement and Solution for Information Systems	4		
Enrichment Program II				
ISYS6347	Professional Program in Industry	8	16	
BUSS6057	Business Ethic	4	16	
ISYS6193	Design and Evaluation for Information Systems	4		

## **Enrichment Entrepreneurship Track**

Code	Course Name	SCU	Total	
Enrichment Program I				
ENTR6325	Business Start Up	8		
ENTR6048	Business Model & Validation for Information Systems Project	2	15	
ENTR6049	ENTR6049 Launching New Ventures for Information Technology Business			
ENTR6376	EES in New Information Systems Business	3		
Enrichment P	rogram II			
ENTR6353	Growing a Business	8		
ENTR6065	Lean Start Up & Business Plan for Information Technology Business	2	16	
ENTR6066				
ENTR6364	EES in Information Systems Business Experience	4		

## **Enrichment Research Track**

Code	Course Name	SCU	Total	
Enrichment Program I				
RSCH6275	Research Experience	8	15	
RSCH6110	Scientific Writing in Information Systems Research	4	15	
RSCH6295	EES in Information Systems Research	3		
Enrichment Program II				
RSCH6275	Research Experience	8	16	
RSCH6110	Scientific Writing in Information Systems Research	4	10	
RSCH6285	EES in Information Systems Research	4		

# **Enrichment Community Development Track**

Code	Course Name	SCU	Total	
Enrichment Program I				
CMDV6156	Community Outreach Project Implementation	8		
CMDV6035	Community Outreach Project Design in Information Systems	4	15	
CMDV6200	Employability and Entrepreneurial Skills in Information Systems Community	3		
Enrichment Program II				
CMDV6156	Community Outreach Project Implementation	8		
CMDV6035	Community Outreach Project Design in Information Systems	4	16	
CMDV6175	Employability and Entrepreneurial Skills in Information Systems Community	4		

# Enrichment Study Abroad Track

Course Name	Course Name SC				
Elective courses list for study abroad*					
Enrichment Program I					
GLOB6005	Elective Course for Study Abroad 1	4			
GLOB6006	Elective Course for Study Abroad 2	4			
GLOB6007	Elective Course for Study Abroad 3	4			
GLOB6008	Elective Course for Study Abroad 4	4			
GLOB6009	Elective Course for Study Abroad 5	2			
GLOB6010	Elective Course for Study Abroad 6	2			
GLOB6011	Elective Course for Study Abroad 7	2	15		
GLOB6012	Elective Course for Study Abroad 8	2			
GLOB6013	Elective Course for Study Abroad 9	2			
GLOB6014	Elective Course for Study Abroad 10	2			
GLOB6015	Elective Course for Study Abroad 11	2			
GLOB6016	Elective Course for Study Abroad 12	2			
GLOB6041	Elective Course for Study Abroad 25	3			
GLOB6042	Elective Course for Study Abroad 26	1			

Course Name	Course Name SCU			
Enrichment P	rogram II			
GLOB6005	Elective Course for Study Abroad 1	4		
GLOB6006	Elective Course for Study Abroad 2	4		
GLOB6007	Elective Course for Study Abroad 3	4		
GLOB6008	Elective Course for Study Abroad 4	4		
GLOB6009	Elective Course for Study Abroad 5	2		
GLOB6010	Elective Course for Study Abroad 6	2	16	
GLOB6011	Elective Course for Study Abroad 7	2		
GLOB6012	Elective Course for Study Abroad 8	2		
GLOB6013	Elective Course for Study Abroad 9	2		
GLOB6014	Elective Course for Study Abroad 10	2		
GLOB6015	Elective Course for Study Abroad 11	2		
GLOB6016	Elective Course for Study Abroad 12	2		

\*)Transferred courses will be transferred based on credit transfer policies on study program with total of 15 credits for Enrichment Program I and 16 credits for Enrichment Program II.

No	Code	Course Name	Minimum Grade
1	CHAR6013	Character Building: Pancasila	В
2	ENTR6004	Entrepreneurship II	С
Strean	ning : Business	s Intelligence	
3	ISYS6126	Enterprise System	С
4	ISYS6188	Information System Analysis and Design*	С
5	ISYS6198	Data and Information Management*	С
6	ISYS6256	Information Systems Project Management	С
7	ISYS6283	Business Intelligence*	С
8	ISYS6200	Data Warehouse	С
Strean	ning : Strategic	Information Systems	-
3	ISYS6126	Enterprise System	С
4	ISYS6188	Information System Analysis and Design*	С
5	ISYS6198	Data and Information Management*	С
6	ISYS6256	Information Systems Project Management	С
7	ISYS6206	IS Strategy, Management and Acquisition	С
8	ISYS6205	Enterprise Archtecture*	С
Strean	ning : e -Busine	ess	
3	ISYS6126	Enterprise System	С
4	ISYS6188	Information System Analysis and Design*	С
5	ISYS6198	Data and Information Management*	С
6	ISYS6256	Information Systems Project Management	С
7	ISYS6204	e-Business Design*	С
8	ISYS6187	Business Web Solution	С

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

No	Code	Course Name	Minimum Grade
Stream	ing : Applied	ERP	
3	ISYS6126	Enterprise System	С
4	ISYS6188	Information System Analysis and Design*	С
5	ISYS6198	Data and Information Management*	С
6	ISYS6256	Information Systems Project Management	С
7	ISYS6206	IS Strategy, Management and Acquisition	С
8	ISYS6205	Enterprise Archtecture*	С
Stream	ing : Applied	Database	
3	ISYS6126	Enterprise System	С
4	ISYS6188	Information System Analysis and Design*	С
5	ISYS6198	Data and Information Management*	С
6	ISYS6256	Information Systems Project Management	С
7	ISYS6283	Business Intelligence*	С
8	ISYS6201	Data Warehouse & Data Mining	С
Stream	ing : Account	ing Information Systems	
3	ISYS6015	Accounting Information Systems Analysis and Design	С
4	ISYS6126	Enterprise System*	С
5	ISYS6198	Data and Information Management*	С
6	ISYS6256	Information Systems Project Management *	С
7	ACCT6013	Cost Accounting	С
8	ACCT6010	IT Cost Management	С
Stream	ing : Informat	ion Systems Audit	
3	ISYS6126	Enterprise System	С
4	ISYS6188	Information Systems Analysis and Design*	С
5	ISYS6198	Data and Information Management*	С
6	ISYS6256	Information Systems Project Management	С
7	ISYS6341	Information System Audit	С
8	ISYS7052	IS Risk Management*	С

\*) Tutorial & Multipaper