

## **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 compete 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. Nurturing students and lecturers with creative and value-adding talents in Information System 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 system 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 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 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 industry 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 system 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 system 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 manage, integrate and add value to the results of data analysis to generate quality information for organization needs.
7. Able to identify needs, design and implement system and ICT to build a web based business application for the organization.
8. Able to evaluate business process integration and corporate strategy for designing an integrated information system in an organization.

## **Prospective Career of the Graduates**

Graduates will have the necessary skills to work as:

1. Application Developer
2. System Analyst
3. Business Analyst
4. Business Process Analyst
5. Database Administrator
6. Database Analyst
7. E-Business Specialist
8. ERP Specialist
9. IT Architect
10. IT Consultant
11. System Designer

12. Database Administrator
13. IT/IS Consultant
14. Web-Developer/Web-Designer

## 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 Database and Applied ERP.

## Course Structure

Sem	Code	Course Name	SCU	Total	
1	ACCT6133	Introduction to Financial Accounting	4	20	
	ISYS6186	Business Process Fundamental*	4		
	ISYS6093	Information System Concept*	4		
	STAT6081	Statistics	2		
	COMP6178	Introduction to Programming	2/2		
	<b>English University Courses I</b>				
	ENGL6128	English in Focus	2		
	ENGL6130	English for Business Presentation	2		
2	CHAR6013	Character Building: Pancasila	2	21	
	ISYS6123	Introduction to Database Systems*	2/2		
	ISYS6188	Information Systems Analysis and Design	2/2		
	ISYS6189	Management Information System*	4		
	ISYS6197	Business Application Development	2/2		
	LANG6061	Indonesian	1		
	<b>English University Courses II</b>				
	ENGL6129	English Savvy	2		
ENGL6131	English for Written Business Communication	2			
3	CHAR6014	Character Building: Kewarganegaraan	2	22	
	ISYS6126	Enterprise System*	4		
	ENTR6003	Entrepreneurship I	2		
	ISYS6209	User Experience	2/2		
	ISYS6264	Testing and System Implementation*	4		
	STAT6021	Research Methodology	2		
	ISYS6198	Data and Information Management	4		

Sem	Code	Course Name	SCU	Total	
4	CHAR6015	Character Building: Agama	2	22	
	ISYS6163	Advanced Information System Analysis and Design**	4/2		
	ISYS6256	Information Systems Project Management*	4		
	<b>Streaming : Business Intelligence</b>				
	ISYS6283	Business Intelligence	4		
	ISYS6210	Data Visualization*	2		
	ISYS6190	Advance in Data & Information Management	4		
	<b>Streaming : Strategic Information System</b>				
	ISYS6146	Information System Security*	2		
	ISYS6206	IS Strategy, Management and Acquisition	4		
	ISYS6284	Analytical Information System	4		
	<b>Streaming : e-Business</b>				
	ISYS6211	Web Based Application Development	2/2		
	ISYS6285	Digital and New Media*	2		
	ISYS6204	e-Business Design	4		
	<b>Streaming : Applied ERP</b>				
	ISYS6146	Information System Security*	2		
	ISYS6442	Applied ERP: Fundamental	4		
	ISYS6206	IS Strategy, Management and Acquisition	4		
	<b>Streaming : Applied Database</b>				
	ISYS6283	Business Intelligence	4		
ISYS6210	Data Visualization*	2			
ISYS7155	Applied Database I	4			

Sem	Code	Course Name	SCU	Total	
5	ISYS8108	Knowledge Management**	4	24	
	ENTR6004	Entrepreneurship II	2		
	ISYS6191	Advanced in Business Application Development	2/4		
	<b>Streaming: Business Intelligence</b>				
	ISYS6200	Data Warehouse	4/2		
	ISYS6199	Data & Text Mining	4		
	ISYS6196	Business Analytics**	2		
	<b>Streaming : Strategic Information System</b>				
	ISYS6205	Enterprise Architecture	4		
	ISYS8066	Business Process Management	4		
	ISYS6202	Social Informatics**	4		
	<b>Streaming : e-Business</b>				
	ISYS6187	Business Web Solution	4		
	ISYS6289	Collaborative Computing**	4		
	ISYS6203	Mobile Applications Development	2/2		
	<b>Streaming : Applied ERP</b>				
	ISYS6205	Enterprise Architecture	4		
	<b>Elective Courses of Applied ERP Streaming***</b>				
	ISYS6443	Applied ERP: Business Process in Sales and Distribution**	4		
	ISYS6444	Applied ERP: Business Process in Procurement	4		
	ISYS6445	Applied ERP: Business Process in Human Capital Management	4		
	ISYS6446	Applied ERP: Business Process in Financial Accounting**	4		
	<b>Streaming : Applied Database</b>				
	ISYS6201	Data Warehouse and Data Mining	4		
ISYS7156	Applied Database II	4			
ISYS7157	Applied Database III**	4			
6	<b>Enrichment Program I</b>		15	15	
7	<b>Enrichment Program II</b>		16	16	
8	ISYS6117	Thesis	6	6	
<b>TOTAL CREDITS 146 SCU</b>					

\*) This course is delivered in English

\*\*) Entrepreneurship embedded

\*\*\*) Elective Courses of Applied ERP Streaming: Students in Applied ERP streaming will choose 2 courses (ISYS6443 and ISYS6444; or ISYS6445 and ISYS6446 ) from elective course list

#### English University Courses:

-) 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

-) 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 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).

**Enrichment Track Scheme**

Track	Semester 6						Semester 7					
	I	RS	ENTR	CD	SA	*etc	I	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 : Internship
- 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
<b>Enrichment Program I</b>			15
ISYS6215	Experience in Industry	8	
COMM6225	Business Communication	3	
ISYS6192	Requirement and Solution for Information Systems	4	16
<b>Enrichment Program II</b>			
ISYS6347	Professional Program in Industry	8	
BUSS6057	Business Ethic	4	16
ISYS6193	Design and Evaluation for Information Systems	4	

### Enrichment Entrepreneurship Track

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

### Enrichment Research Track

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

### Enrichment Community Development Track

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

### Enrichment Study Abroad Track

Code	Course Name	SCU	Total
<b>Elective courses list for study abroad*</b>			
<b>Enrichment Program I</b>			
GLOB6005	Elective Course for Study Abroad 1	4	15
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	
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	
<b>Enrichment Program II</b>			
GLOB6005	Elective Course for Study Abroad 1	4	16
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	
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.



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

No	Code	Course Name	Minimum Grade
1	CHAR6013	Character Building: Pancasila	B
2	ENTR6004	Entrepreneurship II	C
3	ISYS6126	Enterprise System	C
4	ISYS6188	Information System Analysis and Design*	C
5	ISYS6198	Data and Information Management*	C
6	ISYS6256	Information Systems Project Management	C
<b>Stream: Business Intelligence</b>			
7	ISYS6283	Business Intelligence*	C
8	ISYS6200	Data Warehouse	C
<b>Stream: Strategic Information System</b>			
7	ISYS6206	IS Strategy, Management and Acquisition	C
8	ISYS6205	Enterprise Architecture*	C
<b>Stream: e-Business</b>			
7	ISYS6204	e-Business Design*	C
8	ISYS6187	Business Web Solution	C
<b>Stream: Applied ERP</b>			
7	ISYS6206	IS Strategy, Management and Acquisition	C
8	ISYS6205	Enterprise Architecture*	C
<b>Stream: Applied Database</b>			
7	ISYS6283	Business Intelligence*	C
8	ISYS6201	Data Warehouse and Data Mining	C

\*) Tutorial & Multipaper