

## 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

Becoming a world class online learning study program that provides a higher education in information systems area, specialized in Business-IT.

### Mission

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

1. Educating students in information systems that covers knowledge and skills in information systems development for improving business process and creating innovative information systems solutions through online learning processes that meets global standards
2. Nurturing BINUSIAN in research activities by creating a suitable academic atmosphere
3. Fostering BINUSIAN as lifelong learners through self-enrichment in information systems
4. Empowering communities through applied research and information systems solutions in society

### Program Objective

The objectives of the program:

1. To provide students with solid foundation of information systems development skills and knowledge as professionals in information systems
2. Collaboratively to conduct high-impact research in information systems
3. To provide opportunities for lecturers and alumnae in self development and pursuing further studies in information systems
4. To apply information systems solutions in society through community and professional services

### Student Outcomes

After completing the study, graduates are:

1. Able to identify and apply basic concepts in information system planning
2. Able to identify needs and propose alternative solutions in the development of information systems
3. Able to build information system projects to meet organizational needs
4. Integrate information system solutions effectively in an organization

5. Able to formulate needs and propose digital business models by paying attention to business supporting aspects
6. Able to process and integrate the results of data analysis to provide added value for decision making within the organization
7. Able to solve problems through the multidisciplinary 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. Business/System Analyst
2. System/Software Developer
3. Data Engineer
4. IS/IT Consultants
5. Project Leader
6. Technopreneur

### 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	ISYS6697035	Information System Concept	4	12
	ACCT6174035	Introduction to Financial Accounting	4	
	COMP6598035	Introduction to Programming	4	
2	ISYS6699035	Information Systems Analysis and Design	4	12
	ISYS6300035	Business Process Fundamental	4	
	ISYS6698035	Introduction to Data and Information Management	4	
3	CHAR6019035	Character Building: Pancasila	2	14
	ISYS6702035	Business Application Development	4	
	ISYS6310035	Information Systems Project Management	4	
	ISYS6701035	User Experience Research and Design	4	
4	CHAR6020035	Character Building: Kewarganegaraan	2	14
	ISYS6305035	Enterprise System	4	
	MGMT6072035	Introduction to Management and Business	4	
	ISYS6700035	Technology Infrastructure and System Implementation	4	
5	CHAR6021035	Character Building: Agama	2	14
	ISYS6515035	Research Methods in Information Systems	4	
	ISYS6780035	Information System Security	6	

	LANG6031035	Indonesian	2	
6	ISYS6781035	Business Process Management	6	14
	ENGL6163035	English Professional	4	
	ENTR6081035	Entrepreneurship	4	
	<b>Stream: Digital Business Transformation</b>			
7	ISYS6703035	Digital Business Analysis	4	20
	ISYS6704035	Digital and New Media	4	
	ISYS6705035	Digital Business Design	4	
	ISYS6706035	Digital Business Transformation	4	
	ISYS6707035	Digital Marketing	4	
	<b>Stream: Business Analytics</b>			
	ISYS6708035	Advanced in Data and Information Management	4	
	ISYS6332035	Data Warehouse	4	
	ISYS6709035	Data Analytics	4	
	ISYS6710035	Decision Support Systems	4	
	ISYS6605035	Business Intelligence	4	
	8	Minor Program		
Free Electives				
Enrichment Program I				
9	Free Electives			20
	Individual Development Project			
	Enrichment Program II			
10	ISYS6327035	Thesis	6	
<b>Cumulative SCU</b>				<b>146</b>

\*Student will take one of enrichment program tracks. See enrichment appendix for the tracks detail.

**For students who want to take the following stream, the requirements are as follows:**

No	Stream	Requirements
1	Business Analytics	Graduated with a minimum grade of C in the following subjects: (a) Introduction to Data and Information Management (ISYS6698035) and Business Application Development (ISYS6702035)

### Minor Scheme

Minor Program	Semester
	<b>8</b>
<b>Minor @ Binus Online Learning</b>	
Technopreneurship	v
Artificial Intelligence in Business	v

**Minor Program: Technopreneurship**

Code	Course Name	SCU
ACCT6384039	Accounting for Small Medium Enterprise	4
MKTG6296038	Digital Marketing for Manager	4
ISYS6619035	UX for Digital Business	4
COMP6725036	Big Data Technologies	4
ISYE6196037	Industrial Feasibility Analysis	4
<b>Total SCU</b>		<b>20</b>

**Minor Program: Artificial Intelligence in Business**

Code	Course Name	SCU
ISYS6776035	Managerial Support Systems	4
ACCT6473039	Artificial Intelligence for Audit, Forensic Accounting, and Valuation	4
COMP6936036	Machine Learning	4
MGMT6483038	AI Marketing and Predicting Consumer Experiences	4
ISYE6284037	Cognitive Ergonomics	4
<b>Total SCU</b>		<b>20</b>

**Free Electives**
**Semester 8**

For students who take free electives track in the 8<sup>th</sup> semester, the following is a list of courses that students can take for 20 credits

No	Study Program	Course Code	Course	SCU	Semester
1	Management PJJ	ECON6095038	Business Economics	4	8
2	Management PJJ	MGMT6448038	Operations Management	4	8
3	Accounting PJJ	ACCT6130039	Cost Accounting	4	8
4	Accounting PJJ	FINC6205039	Financial Management	4	8
5	Computer Science PJJ	COMP6742036	Algorithm Design and Analysis	4	8
6	Computer Science PJJ	COMP6275036	Artificial Intelligence	4	8
7	Computer Science PJJ	COMP6276036	Compilation Techniques	4	8

8	Industrial Engineering PJJ	STAT6174037	Probability Theory and Applied Statistics	4	8
9	Industrial Engineering PJJ	ISYE6187037	Engineering Economy and System Analysis	4	8
10	Industrial Engineering PJJ	ISYE6190037	Facility Planning and Safety Engineering	4	8
11	Computer Science PJJ	COMP6725036	Big Data Technologies	4	8
12	Industrial Engineering PJJ	ISYE6196037	Industrial Feasibility Analysis	4	8
13	Computer Science PJJ	COMP6936036	Machine Learning	4	8
14	Management PJJ	MGMT6483038	AI Marketing and Predicting Consumer Experiences	4	8
15	Management PJJ	COMM6092038	Business Communication	4	8
16	Industrial Engineering PJJ	ISYE6286037	Market Research for Engineer	4	8

### Semester 9

For students who take free electives track in the 9<sup>th</sup> semester, the following is a list of courses that students can take for 20 credits

No	Study Program	Course Code	Course	SCU	Semester
1	Management PJJ	MGMT6162038	Change Management	4	9
2	Management PJJ	BUSS6049038	Managing Innovation	4	9
3	Information Systems PJJ	ISYS6783035	Social Informatics	6	9
4	Information Systems PJJ	ISYS6784035	IS Audit and Governance	6	9
5	Information Systems PJJ	ISYS6319035	Knowledge Management	4	9
6	Information Systems PJJ	ISYS6312035	IS Strategy, Management and Acquisition	4	9
7	Accounting PJJ	ACCT6238039	International Accounting	6	9
8	Accounting PJJ	ACCT6475039	Management Control System	6	9
9	Accounting PJJ	FINC6216039	Money and Capital Market	4	9

No	Study Program	Course Code	Course	SCU	Semester
10	Industrial Engineering PJJ	ISYE6288037	Smart Manufacturing	4	9
11	Industrial Engineering PJJ	ISYE6289037	Manufacturing Execution Systems	6	9
12	Industrial Engineering PJJ	ISYE6290037	Digital Simulation and Manufacturing System	6	9
13	Computer Science PJJ	COMP6940036	Deep Learning Application	4/2	9
14	Computer Science PJJ	COMP6277036	Geographic Information System	2/2	9

### Enrichment Track Scheme

Track scheme for semester 8 and 9. Student will take one of tracks

Track	Semester 8			Semester 9								
	MP	FE	IS	IN	EN	RS	CD	SA	IS	FS	IDP	FE
1	v			v								
2	v				v							
3	v					v						
4	v						v					
5	v							v				
6	v								v			
7	v									v		
8	v										v	
9	v											v
10		v		v								
11		v			v							
12		v				v						
13		v					v					
14		v						v				
15		v							v			
16		v								v		
17		v									v	
18		v										v
19			v	v								
20			v		v							
21			v			v						
22			v				v					
23			v					v				
24			v						v			

25			v							v		
26			v								v	
27			v									v

**Note:**

MP	: Minor Program	SA	: Certified Study Abroad
FE	: Free Electives	IDP	: Certified Individual Development Project
IS	: Certified Specific Independent Study	FS	: Further Study
IN	: Certified Internship		
EN	: Certified Entrepreneurship		
RS	: Certified Research		
CD	: Certified Community Development		

**Certified Internship Track**
**Enrichment Program II**

For students who take Certified Internship track in semester 9, they should take these courses:

**SEMESTER 9**

Group	Course	SCU
MKB	ISYS6648035 Working Experience in Information Systems	6
	ISYS6649035 Information Systems in Practice	4
	ISYS6651035 Industrial Experience in Information Systems	6
	ISYS6650035 Employability and Entrepreneurial Skills in Information Systems Industry	4
<b>Total SCU</b>		<b>20</b>
<b>Cumulative SCU</b>		<b>20</b>

**Certified Entrepreneurship Track**
**Enrichment Program II**

For students who take Certified Entrepreneurship track in semester 9, they should take these courses:

**SEMESTER 9**

Group	Course	SCU
MKB	ENPR6017035 Business Start Up in Information Systems	6
	ENPR6018035 Business Model & Validation in Information Systems	4
	ENPR6019035 Launching New Venture in Information Systems	6
	ENPR6020035 Entrepreneurship and Managing New Business in Information Systems	4
<b>Total SCU</b>		<b>20</b>
<b>Cumulative SCU</b>		<b>20</b>

**Certified Research Track**
**Enrichment Program II**

For students who take Certified Research track in semester 9, they should take these courses:

**SEMESTER 9**

Group	Course	SCU
MKB	RSCH6675035 Information Systems Research Experience	6
	RSCH6676035 Scientific Writing in Information Systems Research	4
	RSCH6677035 Academic Writing for Information Systems Research	6
	RSCH6678035 Global Employability and Entrepreneurial Skills in Information Systems Research	4
<b>Total SCU</b>		<b>20</b>
<b>Cumulative SCU</b>		<b>20</b>

**Certified Community Development Track**
**Enrichment Program II**

For students who take Certified Community Development track in semester 9, they should take these courses:

**SEMESTER 9**

Group	Course	SCU
MKB	CMDV6442035 Community Development Project Implementation in Information Systems	6
	CMDV6443035 Community Development Project Design in Information Systems	4
	CMDV6444035 Information Systems Program Execution for Community	6
	CMDV6445035 Employability and Entrepreneurial Skills in Information Systems Community	4
<b>Total SCU</b>		<b>20</b>

**Certified Study Abroad Track**
**Enrichment Program II**

For students who take Certified Study Abroad track in semester 9, they should take these courses:

Group	Course	SCU
Elective courses list for study abroad*		
MKB	GLOB6415035 Elective Course for Study Abroad 1	4
	GLOB6416035 Elective Course for Study Abroad 2	4
	GLOB6417035 Elective Course for Study Abroad 3	3
	GLOB6418035 Elective Course for Study Abroad 4	3
	GLOB6419035 Elective Course for Study Abroad 5	3
	GLOB6420035 Elective Course for Study Abroad 6	2
	GLOB6421035 Elective Course for Study Abroad 7	2
	GLOB6422035 Elective Course for Study Abroad 8	2
	GLOB6423035 Elective Course for Study Abroad 9	1



Group	Course	SCU
	GLOB6424035 Elective Course for Study Abroad 10	1
	GLOB6425035 Elective Course for Study Abroad 11	4
	GLOB6426035 Elective Course for Study Abroad 12	4
	GLOB6427035 Elective Course for Study Abroad 13	3
	GLOB6428035 Elective Course for Study Abroad 14	3
	GLOB6429035 Elective Course for Study Abroad 15	3
	GLOB6430035 Elective Course for Study Abroad 16	2
	GLOB6431035 Elective Course for Study Abroad 17	2
	GLOB6432035 Elective Course for Study Abroad 18	2
	GLOB6433035 Elective Course for Study Abroad 19	1
	GLOB6434035 Elective Course for Study Abroad 20	1
<b>Total SCU</b>		<b>20</b>

*\*)Transferred courses will be transferred based on credit transfer policies on study program with total of 20 credits*

### Certified Specific Independent Study Track

#### Enrichment Program I

For students who take Specific Independent Study Track in the 8<sup>th</sup> semester, they should take these courses:

Group	Course	SCU
	CSIS6037035 Course Certification	3
	CSIS6038035 Technical Skill Enrichment	4
	CSIS6039035 Industrial Project	9
MKB	CSIS6040035 Soft Skill Enrichment	4
	CSIS6041035 Elective Course for Specific Independent Study 1	4
	CSIS6042035 Elective Course for Specific Independent Study 2	4
	CSIS6043035 Elective Course for Specific Independent Study 3	3
	CSIS6044035 Elective Course for Specific Independent Study 4	3
	CSIS6045035 Elective Course for Specific Independent Study 5	3
	CSIS6046035 Elective Course for Specific Independent Study 6	2
	CSIS6047035 Elective Course for Specific Independent Study 7	2
	CSIS6048035 Elective Course for Specific Independent Study 8	2
	CSIS6049035 Elective Course for Specific Independent Study 9	1
	CSIS6050035 Elective Course for Specific Independent Study 10	1
	CSIS6051035 Elective Course for Specific Independent Study 11	4
	CSIS6052035 Elective Course for Specific Independent Study 12	4
	CSIS6053035 Elective Course for Specific Independent Study 13	3
	CSIS6054035 Elective Course for Specific Independent Study 14	3
	CSIS6055035 Elective Course for Specific Independent Study 15	3
CSIS6056035 Elective Course for Specific Independent Study 16	2	

Group	Course	SCU
	CSIS6057035 Elective Course for Specific Independent Study 17	2
	CSIS6058035 Elective Course for Specific Independent Study 18	2
	CSIS6059035 Elective Course for Specific Independent Study 19	1
	CSIS6060035 Elective Course for Specific Independent Study 20	1
	CSIS6097035 Elective Course for Specific Independent Study 21	6
	CSIS6098035 Elective Course for Specific Independent Study 22	6
	CSIS6099035 Elective Course for Specific Independent Study 23	6
<b>Total SCU</b>		<b>20</b>

\*) For students who take BINUS certified specific independent study courses, they should take the first 4 courses on the list above (20 credits). Meanwhile, electives courses 1 to 23 are transferred courses for students who take certified specific independent study outside BINUS University. Transferred courses will be transferred based on credit transfer policies on study program with total of 20 credits.

### Enrichment Program II

For students who take Specific Independent Study track in the 9<sup>th</sup> semester, they should take these courses:

Group	Course	SCU
	CSIS6037035 Course Certification	3
	CSIS6038035 Technical Skill Enrichment	4
	CSIS6039035 Industrial Project	9
	CSIS6040035 Soft Skill Enrichment	4
	CSIS6100035 Elective Course for Specific Independent Study 24	4
	CSIS6101035 Elective Course for Specific Independent Study 25	4
MKB	CSIS6102035 Elective Course for Specific Independent Study 26	3
	CSIS6103035 Elective Course for Specific Independent Study 27	3
	CSIS6104035 Elective Course for Specific Independent Study 28	3
	CSIS6105035 Elective Course for Specific Independent Study 29	2
	CSIS6106035 Elective Course for Specific Independent Study 30	2
	CSIS6107035 Elective Course for Specific Independent Study 31	2
	CSIS6108035 Elective Course for Specific Independent Study 32	1
	CSIS6109035 Elective Course for Specific Independent Study 33	1
	CSIS6110035 Elective Course for Specific Independent Study 34	4
	CSIS6111035 Elective Course for Specific Independent Study 35	4
	CSIS6112035 Elective Course for Specific Independent Study 36	3
	CSIS6113035 Elective Course for Specific Independent Study 37	3
	CSIS6114035 Elective Course for Specific Independent Study 38	3
	CSIS6115035 Elective Course for Specific Independent Study 39	2
	CSIS6116035 Elective Course for Specific Independent Study 40	2
	CSIS6117035 Elective Course for Specific Independent Study 41	2
	CSIS6118035 Elective Course for Specific Independent Study 42	1

Group	Course	SCU
	CSIS6119035 Elective Course for Specific Independent Study 43	1
	CSIS6120035 Elective Course for Specific Independent Study 44	6
	CSIS6121035 Elective Course for Specific Independent Study 45	6
	CSIS6122035 Elective Course for Specific Independent Study 46	6
<b>Total SCU</b>		<b>20</b>

\*) For students who take BINUS certified specific independent study courses, they should take the first 4 courses on the list above (20 credits). Meanwhile, electives courses 24 to 46 are transferred courses for students who take certified specific independent study outside BINUS University. Transferred courses will be transferred based on credit transfer policies on study program with total of 20 credits.

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

No.	Course Code	Course	SCU	Minimal Grade
1	CHAR6019035	Character Building: Pancasila	2	B
2	ENTR6081035	Entrepreneurship	4	C
3	ISYS6300035	Business Process Fundamental	4	C
4	ISYS6699035	Information Systems Analysis and Design	4	C
5	ISYS6310035	Information Systems Project Management	4	C
6	ISYS6700035	Technology Infrastructure and System Implementation	4	C
<b>Stream: Digital Business Transformation</b>				
7	ISYS6705035	Digital Business Design	4	C
8	ISYS6706035	Digital Business Transformation	4	C
<b>Stream: Business Analytics</b>				
7	ISYS6709035	Data Analytics	4	C
8	ISYS6605035	Business Intelligence	4	C