

Business Analytics

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 specialized business analytics
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 and manage information system projects to meet organizational needs.
4. Able to integrate information system solutions effectively in an organization.

5. Able to process and integrate the results of data analysis to provide added value for decision making within the organization
6. 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. Business Performance Analyst
7. Data Analyst

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	ISYS6307035	Data and Information Management	4	20
	ISYS6935035	Enterprise Business Process	4	
	ISYS6699035	Information Systems Analysis and Design	4	
	ISYS6878035	Data Modelling and Analytics	4	
	ISYS6879035	Information Systems Management, Planning and Innovation	4	
2	CHAR6019035	Character Building: Pancasila	2	20
	ISYS6310035	Information Systems Project Management	4	
	ISYS6708035	Advanced in Data and Information Management	4	
	ISYS6877035	IT Governance and Security	4	
	ISYS6710035	Decision Support Systems	4	
	COSC6012035	Foundations of Artificial Intelligence	2	
3	CHAR6020035	Character Building: Kewarganegaraan	2	20
	ISYS6888035	Data Integration and Data Wrangling	4/2	
	COSC6047035	Introduction to Programming for Business	4	
	ISYS6332035	Data Warehouse	4	
	LANG6031035	Indonesian	2	
	ENPR6253035	Entrepreneurship	2	

4	CHAR6021035	Character Building: Agama	2	20
	ISYS6876035	Research and Project in Information Systems	4/2	
	ISYS6709035	Data Analytics	4	
	ISYS6701035	User Experience Research and Design	4	
	ISYS6889035	Predictive and Prescriptive Analytics	4	
5	ISYS6890035	Data Analysis for Business Development	4	20
	ISYS6891035	Social Analytics	4	
	ISYS6700035	Technology Infrastructure and System Implementation	4	
	ISYS6605035	Business Intelligence	4	
	ENGL6163035	English Professional	4	
6	Minor Program		20	
	Free Electives			
	Enrichment Program I			
7	Free Electives		20	
	Enrichment Program II			
8	ISYS6377035	Thesis	0	6
	ISYS6327035	Thesis	6	
			Total Credit 146 SCU	

*Semester 6: Students are required to choose Minor Program or Free Electives or Enrichment Program. See appendix for the details.

*Semester 7: Students are required to choose Free Electives or Individual Development Project or one of enrichment program tracks. See appendix for the details.

Appendix: Minor Program Minor Scheme

Minor Program	Semester 6	
	1 st Period	2 nd Period
Minor @ Binus Online Learning		
Technopreneurship	v	v
Artificial Intelligence in Business	v	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
Total SCU		20

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
Total SCU		20

Appendix: Free Electives
Free Elective

For students who take free electives track in the 6th 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	6
2	Management PJJ	MGMT6448038	Operations Management	4	6
3	Accounting PJJ	ACCT6130039	Cost Accounting	4	6
4	Accounting PJJ	FINC6205039	Financial Management	4	6
5	Computer Science PJJ	COMP6742036	Algorithm Design and Analysis	4	6
6	Computer Science PJJ	COMP6275036	Artificial Intelligence	4	6
7	Computer Science PJJ	COMP6276036	Compilation Techniques	4	6
8	Industrial Engineering PJJ	STAT6174037	Probability Theory and Applied Statistics	4	6
9	Industrial Engineering PJJ	ISYE6187037	Engineering Economy and System Analysis	4	6
10	Industrial Engineering PJJ	ISYE6190037	Facility Planning and Safety Engineering	4	6
11	Computer Science PJJ	COMP6725036	Big Data Technologies	4	6
12	Industrial Engineering PJJ	ISYE6196037	Industrial Feasibility Analysis	4	6
13	Computer Science PJJ	COMP6936036	Machine Learning	4	6
14	Management PJJ	MGMT6483038	AI Marketing and Predicting Consumer Experiences	4	6
15	Management PJJ	COMM6092038	Business Communication	4	6
16	Industrial Engineering PJJ	ISYE6286037	Market Research for Engineer	4	6

For students who take free electives track in the 7th 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	7
2	Management PJJ	BUSS6049038	Managing Innovation	4	7
3	Information Systems PJJ	ISYS6783035	Social Informatics	6	7
4	Information Systems PJJ	ISYS6784035	IS Audit and Governance	6	7
5	Information Systems PJJ	ISYS6319035	Knowledge Management	4	7
6	Information Systems PJJ	ISYS6312035	IS Strategy, Management and Acquisition	4	7
7	Accounting PJJ	ACCT6238039	International Accounting	6	7
8	Accounting PJJ	ACCT6475039	Management Control System	6	7
9	Accounting PJJ	FINC6216039	Money and Capital Market	4	7
10	Industrial Engineering PJJ	ISYE6288037	Smart Manufacturing	4	7
11	Industrial Engineering PJJ	ISYE6289037	Manufacturing Execution Systems	6	7
12	Industrial Engineering PJJ	ISYE6290037	Digital Simulation and Manufacturing System	6	7
13	Computer Science PJJ	COMP6940036	Deep Learning Application	4/2	7
14	Computer Science PJJ	COMP6277036	Geographic Information System	4/2	7

Appendix: Enrichment

Enrichment Track Scheme

Track scheme for semester 6 and 7. Student will take one of the tracks:

Enrichment Program Track									
Track	Semester 6	Semester 7							
	IS	IN	EN	RS	CD	SA	IS	FS	IDP
1	v	v							
2	v		v						
3	v			v					
4	v				v				
5	v					v			
6	v						v		
7	v								v

Students in semester 6 who take minor program or free electives, in semester 7 can take the enrichment track as follows:

Enrichment Program Track									
Track	Semester 7								
	IN	EN	RS	CD	SA	IS	FS	IDP	
1	v								
2		v							
3			v						
4				v					
5					v				
6						v			
7							v*		
8									v

*) Regarding the implementation of the Further Study enrichment track as illustrated on the table above, if students wish to choose the Further Study track in semester 7, then their choice in semester 6 must be the Minor Program or Free Electives

Note:

- IN : Certified Internship
- EN : Certified Entrepreneurship
- RS : Certified Research
- CD : Certified Community Development
- SA : Certified Study Abroad
- FS : Further Study
- IS : Certified Specific Independent Study
- IDP : Certified Individual Development Project

Certified Internship Track

Code	Course Name	SCU	Total SCU
ISYS6648035	Working Experience in Information Systems	6	20
ISYS6649035	Information Systems in Practice	4	
ISYS6651035	Industrial Experience in Information Systems	6	
ISYS6650035	Employability and Entrepreneurial Skills in Information Systems Industry	4	

Certified Entrepreneurship Track

Code	Course Name	SCU	Total SCU
ENPR6017035	Business Start Up in Information Systems	6	20
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	

Certified Research Track

Code	Course Name	SCU	Total SCU
RSCH6675035	Information Systems Research Experience	6	20
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	

Certified Community Development Track

Code	Course Name	SCU	Total SCU
CMDV6442035	Community Development Project Implementation in Information Systems	6	20
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	

Certified Study Abroad Track

Code	Course Name	SCU	Total SCU
GLOB6415035	Elective Course for Study Abroad 1	4	20
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	

Code	Course Name	SCU	Total SCU
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	
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	

*) 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

Code	Course Name	SCU
CSIS6037035	Course Certification	3
CSIS6038035	Technical Skill Enrichment	4
CSIS6039035	Industrial Project	9
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

Code	Course Name	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
Total SCU		20

**) 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 7th semester, they should take these courses:

Code	Course Name	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
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
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

Code	Course Name	SCU
CSIS6122035	Elective Course for Specific Independent Study 46	6
Total SCU		20

*) 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.

Further Study Track

Students will receive information about Further Study Track courses during the registration period.

Individual Development Project Track

Code	Course Name	SCU	Total SCU
ISYS6786035	Industrial Project Planning in Information Systems	6	20
ISYS6787035	Industrial Project Implementation in Information Systems	4	
ISYS6788035	Industrial Project Evaluation and Reporting in Information Systems	6	
ISYS6789035	Business Ethics in Information Systems Industry	4	

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

No.	Course Code	Course	SCU	Minimal Grade	Semester	Period
1	CHAR6019035	Character Building: Pancasila	2	B	2	1
2	ENPR6253035	Entrepreneurship	2	C	3	1
3	ISYS6307035	Data and Information Management	4	C	1	1
4	ISYS6935035	Enterprise Business Process	4	C	1	1
5	ISYS6699035	Information Systems Analysis and Design	4	C	1	2
6	ISYS6310035	Information Systems Project Management	4	C	2	1
7	ISYS6709035	Data Analytics	4	C	4	1
8	ISYS6605035	Business Intelligence	4	C	5	2