Computer Science

Introduction

In the new millennium and the global era, the role of information and automation in the various domains and activities of the business industry is becoming more important. The success of the activities is determined by how computer science can support managing the information. The information must be up-to-date, accurate and comprehensive to allow decision-makers to determine the enterprise's strategy. Furthermore, automation can facilitate human activity, accelerate the pace of work and make it more effective and efficient, while also increasing productivity in various activities. The development of communication and computer technology has made it possible to get information that is rapid, exact, and accurate. It also increases the application of automation in various fields such as industry, business, office affairs and the development of science and technology.

The Computer Science Program was founded in September 1987, under STMIK Bina Nusantara; it became one of the programs under the coordination of the Faculty of Computer Science, Bina Nusantara University in December 1998.

Computer Science Program at Bina Nusantara University emphasizes the processes, techniques, and tools that go into developing computer-based systems, with specialities in intelligent systems, software engineering, multimedia technology, database systems and network technology.

Vision

A world class study program by providing excellent educational experiences in Computer Science, which focuses on developing creative technology solutions, fostering and empowering the society in building and serving the nation.

Mission

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

1. Educating students to effectively apply their educational experiences in developing creative solutions in computer science, to solve real-world problems.
2. Preparing graduates to develop exemplary soft skills & technical skills required as computer science professionals, leaders, and entrepreneurs in global market.
3. Promoting high impact computer science research that contributes to the nation.
4. Fostering BINUSIAN as computer science lifelong learners through self-enrichment.
5. Empowering BINUSIAN to continuously improve society's quality of life through knowledge in computer science.

Program Objective

The objectives of the program are:

1. Graduates will become successful professionals in ICT fields;
2. Graduates will obtain employment in global companies or become entrepreneurs;
3. Graduates will obtain professional certification or continue their study to the postgraduate.

Student Outcomes

After completing the study, graduates are:

1. Able to analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions;
2. Able to design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of computer science;
3. Able to communicate effectively in a variety of professional contexts;
4. Able to recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles;
5. Able to function effectively as a member or leader of a team engaged in activities appropriate to computer science;
6. Able to apply computer science theory and software development fundamentals to produce computing-based solutions.

Prospective Career of the Graduates

After finishing the program, the graduate of the Computer Science Program could follow a career as:

1. Software Engineer/Developer
2. System Analyst/Developer
3. Web Engineer/Developer
4. Computer Network Specialist
5. Database Specialist
6. Artificial Intelligence Specialist
7. Data Scientist
8. IT Support/Consultant
9. Researcher
10. Multimedia Programmer
11. Lecturer/Trainer

Curriculum

The curriculum of the Computer Science Program has been developed in line with the National Curriculum. Also, the local content has been developed in line with the Computer Science Curriculum standard of ACM (Association for Computing Machinery), several local and foreign universities, and market trends, so that the graduates of the Computer Science Program are expected to be able to face competition at both a national and international level. Generally, the subjects of the curriculum 2020 are divided into the following groups of subjects:

Mathematics Group (Science)

The objective of this group is to provide an understanding of mathematics as one of the principal foundations of computer science. Another objective is to give an understanding of scientific methodology (data collection, hypothesis, research, analysis) in problem-solving.

Character Building Group (Professional Practices)

The objective of this group is to develop the personal strengths of the student and to provide him or her with a professional character, professionalism in their field, management skills, oral and written communication skills, understanding of business ethic, ability to work as a team, and to develop a "Binusian" Character.

Core Group

The objective of this group is to provide a grounding in Computer Science through practice as well as applied theory which is required by business both now and in the future. The subjects that are included in this group are programming, algorithm design and analysis, software engineering, database systems, computer graphics, multimedia technology, human and computer interaction, operation systems, computer architecture, and computer networks.

Concentration Subject (Stream)

The objective of this group is to allow students to obtain a deep understanding of a range of disciplines in computer science. The students are expected to develop their skills and master the techniques which will allow them to research both their thesis and/or to continue their studies.

The Concentration subjects (Stream) provide:

- Software Engineering: to explore the various methodologies and software engineering equipment.
- Intelligent Systems: to explore the various techniques of computer intelligence that can be applied to solving the problem.
- Database Technology: to explore the various technologies and database applications.
- Network Technology: to explore computer networking which consists of installation, administration, and computer networking management.
- Interactive Multimedia: to explore computer interactive multimedia applications, based on computer programming, design tools, and software engine.
- Internet of Things: to explore the various techniques and implementation of IoT.
- Digital Creative Technology: focuses on competencies development in the smart software application development field based on big data analytics to support business innovation through digital transformation in Industry 4.0 era (Digital Business Innovation and Transformation).

Entrepreneur and Employability Skill (Internship)

The objective of this group of subjects is to prepare students with professional experience, and work ethics and to experience the working environment. The students are expected to apply and practice their knowledge in the real working area such as industry, research lab, and also an entrepreneur startup. They are also expected to give reports on the result of the subjects.

BINUS UNIVERSITY

Course Structure

Sem	Code	Course Name	SCU	Total
1	CHAR6013001	Character Building: Pancasila	2	20
	MATH6025001	Discrete Mathematics	4	
	MATH6030001	Linear Algebra	2	
	COMP6047001	Algorithm and Programming** (AOL)	4/2	
	COMP6798001	Program Design Methods* (AOL)	2	
	LANG6027001	Indonesian	2	
	STAT6171001	Basic Statistics	2	
	Foreign Language Courses		0	
2	CHAR6014001	Character Building: Kewarganegaraan	2	20
	COMP6048001	Data Structures*&** (AOL)	4/2	
	MATH6031001	Calculus	4	
	ENTR6509001	Entrepreneurship: Ideation	2	
	COMP6800001	Human and Computer Interaction** (AOL)	2/1	
	MATH6183001	Scientific Computing (AOL)	2/1	
	Foreign Language Courses		0	
3	CHAR6015001	Character Building: Agama	2	21
	COMP6049001	Algorithm Design and Analysis* (AOL)	4	
	CPEN6247001	Computer Networks (AOL)	2/1	
	COMP6065001	Artificial Intelligence** (AOL)	4	
	SCIE6063001	Computational Physics (AOL)	2/1	
	COMP6799001	Database Technology** (AOL)	2/1	
	COMP6820001	Object Oriented Programming*&**	2	
	Foreign Language Courses		0	
4	COMP6696001	Research Methodology in Computer Science* (AOL)	2	Streaming: 21 Minor / FE/ MST: 17
	COMP6100001	Software Engineering** (AOL)	4	
	SCIE6062001	Computational Biology	2/1	
	Streaming : Software Engineering			
	COMP6106001	Code Reengineering	4	
	COMP6114001	Pattern Software Design	2/2	
	COMP6884001	Agile Software Development*&**	4	
	Streaming : Intelligent System			
	COMP6885001	Natural Language Processing*&**	2/2	
	COMP6577001	Machine Learning	4	
	COMP6822001	Speech Recognition	2/2	
	Streaming : Interactive Multimedia			
	COMP8129001	User Experience*&**	2/2	
	COMP6823001	Multimedia Systems**	2	

Sem	Code	Course Name	SCU	Total
	COMP7094001	Multimedia Programming Foundation*	2/2	
	COMP7128001	Game Design	2	
	Streaming : Database Technology			
	COMP6481001	Database Design	2/1	
	COMP6579001	Big Data Processing*&**	2/2	
	COMP6710001	Distributed Cloud Computing	2/1	
	COMP6886001	Data Analytics	2	
	Streaming : Network Technology			
	COMP6824001	Computer Security*	2/2	
	COMP6584001	Network and System Programming*&**	2/2	
	COMP6827001	Linux System Administration and Security	2/2	
	Streaming : Internet of Things (IoT)[1]			
	COMP6849031	Embedded System	2/2	
	COMP6850031	Multimedia & Mixed Reality	2/1	
	MOBI6072031	Mobile programming	2/1	
	COMP6655031	Cyber Security in IoT	2	
	Streaming : Digital Creative Technology[2]			
	COMP6679004	Web Programming**	4	
	COMP6677004	Multimedia Systems	2/2	
	COMP6856004	Popular Programming Technology**	2	
	General Courses for Stream Digital Creative Technology			
	COMP6955004	Database Design	2	
	Streaming: Mobile and Game Technology[3]			
	COMP6897051	Game Design & Programming	2/2	
	COMP6898051	User Experience	2	
	COMP6899051	Machine Learning	2	
	COMP6900051	Mobile Embedded Systems	4	
	Minor Program		8	
	Free Elective		8	
	Multidisciplinary Stream		8	
	Foreign Language Courses		0	
5	COMP6062001	Compilation Techniques	4	Streaming: 18 Minor / FE: 22
	COMP6697001	Operating System **(AOL)**	2	
	ENTR6511001	Entrepreneurship: Market Validation	2	
	Elective Courses***			
	MOBI6059001	Mobile Programming	2	
	COMP6586001	Embedded Systems	2	
	COMP6226001	Competitive Programming*	2	

Sem	Code	Course Name	SCU	Total
	COMP6821001	Web Programming	2	
	COSC6065001	Network Security Fundamental	2	
	Streaming : Software Engineering			
	COMP6122001	Framework Layer Architecture	2/2	
	COMP6115001	Object Oriented Analysis & Design*	2/2	
	Streaming : Intelligent System			
	COMP7116001	Computer Vision*	2/2	
	COMP6826001	Deep Learning	2/2	
	Streaming : Interactive Multimedia			
	COMP6583001	Computer Graphics	2/2	
	COMP7139001	Game Programming*	4	
	Streaming : Database Technology			
	COMP6590001	Geographical Information System*	2/2	
	COMP6140001	Data Mining	2/2	
	Streaming : Network Technology			
	COMP6825001	Introduction to Cloud Infrastructure	2	
	COMP7142001	Popular Network Technology	2/2	
	COMP6113001	Network Design	2	
	Streaming : Internet of Things (IoT)[1]			
	COMP6757031	Computer Vision in Internet of Things	2/2	
	COMP6882031	IoT Development and Architecture	2/2	
	Elective Courses for Stream Internet of Things (IoT)			
	COMP6921031	Web Development	2	
	COMP6922031	Cloud Computing	2	
	Streaming : Digital Creative Technology[2]			
	COMP6678004	Big Data Analytics for Business	4	
	MOBI6063004	Mobile Application Programming**	4	
	COMP6680004	Data Visualization*	2	
	Streaming: Mobile and Game Technology[3]			
	COMP6903051	Computer Vision	2/2	
	COMP6905051	Mobile and Game Development Capstone Project	4	
	General Courses for stream Mobile and Game Technology			
	COMP6923051	Hybrid Application Development	2	
	Minor Program		12	
	Free Elective		12	
	Multidisciplinary Stream		12	
6	**Enrichment Program I**		20	20
7	**Enrichment Program II**		20	20

Sem	Code	Course Name	SCU	Total
8	COMP6747001	Pre-Thesis	2	6
	COMP6748001	Thesis	4	
	COMP6861001	Thesis	6	
			TOTAL CREDITS 146 Credits	

*) This course is delivered in English
**) Global Learning System course
***)Students will choose 1 course (2 credits) from the list of elective courses. The elective courses are available for students who choose stream in Binus Greater Jakarta or Minor Program or Free Electives or Multidisciplinary Stream
1) Conducted for student mobility program in BINUS @Bandung
2) Conducted for student mobility program in BINUS @Malang
3) Conducted for student mobility program in BINUS @Semarang

-) **(AOL)** - Assurance of Learning Process System

Streaming/Minor/Free Electives/Multidisiplanary Stream:
-) For 4th Semester: Students are required to choose Streaming/ Minor/ Free Electives/ Multidisiplanary Stream. For Free Electives, students are required to choose from the list of Free Electives in Appendix.
-) For 5th Semester: Students are required to choose Streaming/ Minor/ Free Electives/ Multidisiplanary Stream same with previous semester. For Free Electives, students are required to choose from the list of Free Electives in Appendix.

Foreign Language Courses:
Students will take foreign language courses according to BINUS University English proficiency test results. See foreign language courses appendix for the details. Students must pass with a minimum Grade of C.

Pre-thesis (2 SCU) & Thesis (4 SCU) can be taken in the 6th and/or 7th semester by the students who meet the requirements from the Study Program/Program

Appendix Foreign Language Courses

Foreign Language Courses		SCU
ENGL6253001	English for Frontrunners	0
ENGL6254001	English for Independent Users	0
ENGL6255001	English for Professionals	0
JAPN6190001	Basic Japanese Language*	0
CHIN6163001	Basic Chinese Language*	0

*) This course is optional for students

1. Students with Binus University English Proficiency Test score less than 437 are required to take English for Frontrunners and English for Independent Users.

2. Students with Binus University English Proficiency Test score less than 520 are required to take English for Independent Users and English for Professionals.

3. Students with Binus University English Proficiency Test score equal to or greater than 520 are required to take English for Professionals. Additionally, students may choose to take either Basic Japanese Language or Basic Chinese Language.

4. Students are required to pass the foreign language courses before they take enrichment.

5. Students can see the requirements to pass the foreign language courses at BINUSMAYA – Beelingua.

Minor Scheme

Minor Program	Semester 4	Semester 5
Minor @ Binus Kemanggisan		
Digital Ecosystem	-	-
Human Capital in Digital Workplace	v	v
Sustainable Development	v	v
Cross Cultural Communication	v	v
Interactive & Users Experience Design	v	v
Data Analytics	v	v
Robotic Process Automation	v	v
Event Business and Entertainment	v	v
Creative Digital Storytelling	v	v
Digital Banking	v	v
Blockchain Technology and Business	v	v
Minor @ Binus Alam Sutera		
Digital Transformation	v	v
Minor @ Binus Bekasi		
Virtual Service Experience	-	-
Culinary	v	v
Minor @ Binus Malang		
Digital Technopreneur	v	v
Minor @ Binus Bandung		
DesignPreneur	v	v
Minor @ Binus Semarang		
Metaverse in Business	v	v
Content Creation	v	v

1. Minor Program: Human Capital in Digital Workplace

Fundamental Courses

Course		SCU
PSYC6174027	Psychology in The Workplace	4
MGMT6349005	Digital Workplace Strategy	4
ISYS6551003	Digital Workplace and Technology	4
LAWS6157028	Legal Aspects in Digital Workplace	4
PSYC6175027	Human Resources Development	4
	Total SCU	**20**

2. Minor Program: Sustainable Development

Fundamental Courses

Course		SCU
ISYE6154011	Sustainable Design and Manufacture	4
CPEN6217010	Digital for Sustainable Development	4
ARCH6119014	Introduction to Sustainable Development	2
	Total SCU	**10**

Supporting Courses

Course		SCU
ISYE6155011	Occupational, Health, Safety, and Administration in Engineering	2
DSGN6835008	Engineering Material	4
CIVL6118013	Engineering Economic	4
	Total SCU	**10**

3. Minor Program: Cross Cultural Communication

Fundamental Courses

Course		SCU
CHIN6132026	Chinese Conversation in Daily Activities	4
COMM6502019	Communication in Diversity	2
BUSS6170025	Asian Business Ethics	4
	Total SCU	**10**

Supporting Courses

Course		SCU
CHIN6134026	Chinese Conversation in Business Communication	4
LAWS6158028	Private International Law	2
INTR6135029	Comparative Politics	4
	Total SCU	**10**

4. Minor Program: Interactive & Users Experience Design

Fundamental Courses

Course		SCU
ISYS6553003	User-Centered Research and Evaluation	4
PSYC6176027	Psychology and User Experience	4
DSIN6003007	Fundamental of Interface Design	2
	Total SCU	**10**

Supporting Courses

Course		SCU
ISYS6554003	Core Principles: Interactive Design	4
DSGN6837007	Digital Design Production	4
ISYS6556003	Information Architecture	2
	Total SCU	**10**

5. Minor Program: Data Analytics

Fundamental Courses

Course		SCU
ISYS6680003	Introduction to Data Analytics	2
ISYS6681003	Data Management & Descriptive Analytics	4
STAT6198049	Statistical for Decision Making	4
	Total SCU	**10**

Supporting Courses

Course		SCU
ISYS6682003	Application of Predictive Analytics to Business Data	4
ISYS6683003	Prescriptive Analytics and Optimization	4
MKTG6312005	Digitalization of Markets and Consumption	2
	Total SCU	**10**

6. Minor Program: Robotic Process Automation

Fundamental Courses

Course		SCU
COMP6857001	Basic Programming for Automation	2
COMP6858001	RPA Concept & Design	2
ISYS6684003	RPA Developer Fundamental	4
ISYS6687003	Business Process Improvement	2
	Total SCU	**10**

Supporting Courses

Course		SCU
ISYS6685003	RPA Developer Advance	4
ISYS6686003	RPA Business Analytics Fundamental	4
COMP6859001	Intelligence Automation	2
	Total SCU	**10**

7. Minor Program: Event Business and Entertainment

Fundamental Courses

Course		SCU
HTMN6151021	Event Marketing Management	2
HTMN6152021	Catering Management	4
TRSM6232022	MICE (Meeting, Incentive, Convention, Exhibition) Management	4
	Total SCU	**10**

Supporting Courses

Course		SCU
TRSM6233022	Event Sponsorship and Funding	2
TRSM6234022	Sport and Entertainment Event Management	4
TRSM6235022	Festival & Cultural Event	4
	Total SCU	**10**

8. Minor Program: Creative Digital Storytelling

Fundamental Courses

	Course	SCU
ENGL6274024	Approaches in Multimodal Storytelling	2
DSIN6033007	Visual Storytelling	2
ENGL6275024	Storytelling for Business	2
FILM6118009	Script Development & Pitching	4
	Total SCU	**10**

Supporting Courses

	Course	SCU
ENGL6276024	Cultures, Language, and Arts Production	4
JAPN6212025	Anime and Manga as Storytelling	2
ENGL6277024	Music as Medium for Storytelling	4
	Total SCU	**10**

9. Minor Program: Digital Banking

Fundamental Courses

	Course	SCU
ISYS6824003	Technology Innovation in Banking	2
FINC6217020	Bank Risk Management in the Digital Era	4
FINC6218020	Digital Finance and The Role of Central Bank	4
	Total SCU	**10**

Supporting Courses

	Course	SCU
MGMT6510005	Business Process Management in Banking and Finance	4
ISYS6825003	Data Analytics in Banking and Finance	4
MGMT6511005	Digital Leadership	2
	Total SCU	**10**

10. Minor Program: Blockchain Technology and Business

Fundamental Courses

	Course	SCU
ISYS6826003	Introduction to Blockchain Technology	4
ISYS6827003	Blockchain Economy & Business	4
DTSC6016001	Basic Blockchain Programming	2
	Total SCU	**10**

Supporting Courses

	Course	SCU
ISYS6828003	Blockchain Architecture Design and Implementation	4
DTSC6017001	Advanced Blockchain Programming	2
DTSC6018001	Prototyping Blockchain Project	4
	Total SCU	**10**

11. Minor Program: Digital Transformation

Fundamental Courses

	Course	SCU
ISYS6559003	Business Models and Technology Innovation	4
ISYS6557003	Business Data Management	4
MGMT6484005	Digital Strategy	2
	Total SCU	**10**

Supporting Courses

	Course	SCU
ISYS6695003	Digital Marketing Analysis	4
STAT6200049	Practical Statistics for Digital Business	4
ISYS6560003	Success Factor for Leading Digital Transformation	2
	Total SCU	**10**

12. Minor Program: Culinary

Fundamental Courses

	Course	SCU
HTMN6108021	Food and Beverage Management	2
HTMN6008021	Kitchen Operation	4
HTMN6128021	Pastry and Bakery Operation	4
	Total SCU	**10**

SCU for HTMN6008021, HTMN6128021 are practical

Supporting Courses

	Course	SCU
HTMN6155021	Indonesian Cuisine	4
HTMN6125021	Restaurant Operation	4
HTMN6154021	Culinary Tourism	2
	Total SCU	**10**

SCU for HTMN6155021, HTMN6125021 are practical

13. Minor Program: Digital Technopreneur

Fundamental Courses

	Course	SCU
ENTR6528002	The Entrepreneurial Innovator	4
DSGN6839006	Interactive Design	4
COMM6504018	Digital Branding	2
	Total SCU	**10**

Supporting Courses

	Course	SCU
ENPR6196002	Market Intelligence	2
COMP6687004	User Experience Design	4
DSGN6844023	Prototyping Digital Future	4
	Total SCU	**10**

14. Minor Program: Designpreneur

Fundamental Courses

	Course	SCU
ENTR6525032	Fundamental of Designpreneur	4
COMP6688031	UI/UX Development	4
DSGN6797034	Surface Packaging Design	4
ENTR6526032	Hospitality and Service Design	4
DSGN6843033	Project Design	4
	Total SCU	**20**

15. Minor Program: Metaverse in Business

Fundamental Courses

	Course	SCU
ISYS6777052	Business Model	2
COMP6889051	Virtual Reality	4
COMP6890051	Augmented reality	4
	Total SCU	**10**

Supporting Courses

	Course	SCU
ISYS6778052	Data Analytics	2
DSGN6981053	Design Thinking	4
DSGN6980053	Interface Design	4
	Total SCU	**10**

16. Minor Program: Content Creation

Fundamental Courses

	Course	SCU
FILM6105009	Filmmaking Fundamental	4
MKTG6392055	Digital marketing	4
DSIN6042053	Photography for Creators	2
	Total SCU	**10**

Supporting Courses

	Course	SCU
DSGN6990053	Creative Storytelling	4
DSIN6043053	Strategic Influence	2
DSIN6041053	Introduction to Visual Communication Design	4
	Total SCU	**10**

Multidisciplinary Stream Scheme

Multidisciplinary Stream	Semester 4	Semester 5
Stream @Greater Jakarta		
Japanese Language & Business Culture	V	V
English as Foreign Language Learning	V	V
English for Business Professionals	V	V
English for Specific Academic Purposes	V	V
Corporate Communication	-	-
Strategic Digital Production	-	-

1. Multidisciplinary Stream: Japanese Language & Business Culture

Stream Courses

Course		SCU
JAPN6032025	Japanese Work Ethics (*Bijinesu Mana-*)	2
JAPN6117025	Intermediate Japanese (*Chuukyuu Bunpou*)	4
JAPN6118025	Text Analysis (*Chuukyuu Dokkai*)	4
JAPN6203025	Intermediate Listening Comprehension (*Chuukyuu Choukai*)	4
JAPN6202025	Japanese in Translation II (*Nihongo Honyaku II*)	4
JAPN6165025	Advanced Linguistics (*Gengogaku II*)	2
	Total SCU	**20**

2. Multidisciplinary Stream: English as Foreign Language Learning

Stream Courses

Course		SCU
EDUC6051024	English Language Learning Fundamentals	4
EDUC8003024	English for Specific Purposes: Second Language Learning	2
EDUC6053024	Print & Digital Literacy	2
EDUC6054024	Classroom Communication and Learning	4
EDUC6055024	Teaching BIPA	2
EDUC6056024	Current Issues in Foreign Language Learning	2
EDUC6057024	Language Testing	4
	Total SCU	**20**

3. Multidisciplinary Stream: English for Business Professionals

Stream Courses

Course		SCU
ENGL6154024	English for Business Communications	4
ENGL6258024	English for Global Leadership	2
ENGL6169024	English for Professionals	2
MKTG6112024	Language Innovations in Marketing and Advertising	2
COMM6506024	Current Issues in Business Communications	2
ENGL6244024	Social Media Broadcasting	4
ENGL6245024	Business Rhetoric	4
	Total SCU	**20**

4. Multidisciplinary Stream: English for Specific Academic Purposes

Stream Courses

Course		SCU
ENGL6259024	Reading Skills for Academic Study	4
ENGL6260024	Text Analysis for Paper Writing	4
ENGL6261024	Style and Rhetoric	4
ENGL6262024	Presentation Skills	4
ENGL6263024	Advanced Seminar and Poster Presentation	4
	Total SCU	**20**

Appendix: Free Electives (4th Semester & 5th Semester)

No	Course Owner Department	Course Code	Course Name	SCU	Semester
1	Business Management	MGMT6365005	Current Issue in Service Business and Technology	2	4
2	Business Management	MGMT6401005	Digital Supply Chain Management	2	4
3	Business Management	MKTG6324005	Retail Marketing Management	2	5
4	Global Business Marketing	MKTG6321005	Marketing Data Analytics	4	4
5	Global Business Marketing	MKTG6237005	Global Strategic Marketing: Asia Pasific Perspective	4	5
6	International Business Management	BUSS6223005	Trade in Asia	2	5
7	International Business Management	MGMT6357005	Multinational Corporation Management	4	5
8	International Business Management	MGMT6458005	Global Supply Chain Management	2	4
9	Management	BUSS6109005	Business Development	4	4
10	Management	ISYS6744005	E-Business Strategy and Implementation	4	4
11	Management	ISYS6079005	E-Business System	4	4
12	Management	MGMT6196005	Project Management	4	4
13	Management	MGMT6297005	Operations Management	4	5
14	Management	MGMT6341005	Strategic Management	4	4
15	Management	MGMT6374005	Analysis on E-Business Investment	4	4
16	Hotel Management	HTMN6001021	Introduction to Hospitality	4	5
17	Hotel Management	HTMN6147021	Hospitality Management	4	5
18	Marketing Communication	COMM6533019	Creative Program Design	2/2	5
19	Marketing Communication	COMM6541019	Digital Corporate Communication	2/2	5
20	Marketing Communication	COMM6624019	Digital Creative Content	2/2	5
21	Tourism	BUSS6137022	Tourism E-Business	4	5
22	Tourism	TRSM6142022	Event Management	4	5
23	Tourism	TRSM6212022	Indonesian Culture	4	5
24	Civil Engineering	CIVL6080013	Construction Methods & Heavy Equipment	2	5
25	Civil Engineering	COMP6046013	Computer Applications in Construction Management	2	5
26	Computer Engineering	CPEN6126010	Cross Platform Application Development	4	5

No	Course Owner Department	Course Code	Course Name	SCU	Semester
27	Computer Engineering	CPEN6220010	Computer Networks & Information Security	4/1	5
28	Computer Engineering	CPEN6225010	Telco Network & Switching System	2	5
29	Computer Engineering	CPEN6232010	Cloud Technology Practice	2	5
30	Food Technology	CPEN6235015	IoT in Food Industry	2	5
31	Food Technology	FOOD6073015	Current Issues in Food Technology	2	5
32	Industrial Engineering	ISYE6041011	Engineering Economy	2	4
33	Industrial Engineering	ISYE6113011	Leadership & Organizational Behavior	2	5
34	Industrial Engineering	ISYE6181011	System Engineering & Analysis	2	4
35	Business Law	LAWS6017028	Intellectual Property Rights	4	5
36	Business Law	LAWS6052028	Bankruptcy Law	2	5
37	Business Law	LAWS6110028	Cyber Law	2	5
38	Business Law	LAWS6167028	Legal Philosophy & Professional Ethics	2	5
39	Business Law	LAWS6171028	Business Competition & Consumer Protection Law	2	5
40	Business Law	LAWS6176028	Tax Law	2	5
41	Chinese Literature	CHIN6157026	Chinese Business for Etiquette (Beginner)	4	5
42	Chinese Literature	CHIN6159026	Chinese Character Writing	2	5
43	English Literature	ENGL6169024	English for Professionals	2	5
44	English Literature	ENGL6244024	Social Media Broadcasting	4	5
45	English Literature	SOCS6021024	Social and Digital Media Writing	2	5
46	International Relations	INTR6162029	Multiculturalism and Digital Society	2	4
47	International Relations	INTR6180029	Introduction to International Media	2	5
48	International Relations	INTR6158029	Indonesia's Defense and Security Policy	2	4
49	International Relations	INTR6178029	Introduction to International Political Economy	2	5
50	Japanese Literature	JAPN6036025	Japanese Tourism (Nihon Kankou)	2	5
51	Japanese Literature	JAPN6104025	Japanese Industry and Technology	2	5
52	Japanese Literature	JAPN6111025	Introductory Japanese I	4	5
53	Japanese Literature	JAPN6148025	Japanese Letter I (Kanji I)	2	5
54	Primary Teacher Education	EDUC6018030	Micro Teaching	4	5
55	Primary Teacher Education	EDUC6041030	Current Issues in Primary Education	2	5
56	Primary Teacher Education	EDUC6073030	ICT for Distance Learning	4	5
57	Psychology	PSYC6124027	Psychology of Early Childhood Education	4	5
58	Psychology	PSYC6125027	Psychology of Special Needs Education	4	5
59	Psychology	PSYC6130027	Human Performance Technology	4	5
60	Psychology	PSYC6191027	E-Learning Psychology	4	5

No	Course Owner Department	Course Code	Course Name	SCU	Semester
61	Psychology	PSYC6215027	Leadership and Organizational Behaviour	4	5
62	Finance	FINC6010020	International Finance	2	5
63	Finance	FINC6189020	Introduction to Financial Market and Fin-Tech	2	5
64	Cyber Security	COMP6542001	Computer Security Fundamental	2	5
65	Data Science	DTSC6005001	Data Mining and Visualization	2/1	4
66	Computer Science	COMP6590001	Geographical Information System	2/2	5
67	Computer Science	COMP6823001	Multimedia Systems	2	4
68	Computer Science	COMP7128001	Game Design	2	4
69	Computer Science	COMP8129001	User Experience	2/2	4
70	Computer Science	COMP6821001	Web Programming	2	5
71	Computer Science	COMP7116001	Computer Vision	2/2	5
72	Mobile Application & Technology	MOBI6070001	Embedded System and Internet of Things	3	5
73	Data Science	DTSC6006001	Machine Learning	2/1	5
74	Mobile Application & Technology	MOBI6059001	Mobile Programming	2	5
75	Game Application and Technology	GAME6085001	Object Oriented Game Programming	2	5
76	Cyber Security	COMP6549001	Software Security	2	4
77	Mobile Application & Technology	MOBI6068001	Web Design	2	5
78	Animation	DSGN6689007	Concept Art & Production Design	2	5
79	Creative Advertising	DSGN6732007	Photography	4	4
80	Creative Advertising	DSGN6671007	Creative Writing for Commercials	4	4
81	Film	FILM6026009	History of Indonesian Cinema	2	4
82	Film	FILM6059009	Global Cinema	4	5
83	Interior Design	DSGN6612008	Design Trend	2	5
84	New Media	DSGN6743007	Digital Graphic Reproduction	4	5
85	Business Information Technology	ISYS6574003	Information Retrieval	4	4
86	Business Information Technology	ISYS6577003	Machine Learning & Foundations	2	4
87	Business Information Technology	ISYS6579003	Knowledge-Based AI: Cognitive Systems	4	5
88	Business Information Technology	ISYS6606003	Smart Application	2	4
89	Information Systems	BUSS6043003	Introduction to E-Business	4	4
90	Information Systems	ISYS6203003	Mobile Application Development	2/2	4
91	Information Systems	ISYS6016003	Social Media Fundamental	2	4
92	Information Systems	ISYS6196003	Business Analytics	2	5
93	Information Systems	ISYS6199003	Data & Text Mining	4	5
94	Information Systems	ISYS6202003	Social Informatics	4	5
95	Information Systems	ISYS6210003	Data Visualization	2	4
96	Information Systems	ISYS6285003	Digital and New Media	2	4

No	Course Owner Department	Course Code	Course Name	SCU	Semester
97	Information Systems	ISYS6289003	Collaborative Computing	4	5
98	Information Systems	ISYS6402003	Business Analytics	2/2	5
99	Information Systems	ISYS6594003	Coding for Finance	2	4
100	Information Systems	ISYS8066003	Business Process Management	4	5

Enrichment Program I (6th Semester) & Enrichment Program II (7th Semester):
-) *Student will take one of enrichment program tracks (off campus). See enrichment appendix for the tracks detail.*

Enrichment Track Scheme

Track	Semester 6							Semester 7							
	IN	RS	EN	CD	SA	IS	etc	IN	RS	EN	CD	SA	IS	FS	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							
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				

Note:

IN	: Internship	SA	: Study Abroad
RS	: Research	FS	: Further Study
EN	: Entrepreneurship	IS	: Certified Specific Independent Study
CD	: Community Development	etc	: Study Program Special Purposes

Description:

1. Students will take only one track in each Enrichment Program.
2. Students who failed in Enrichment Program I can retake according to the table above.
3. As for Enrichment Program II, students who failed should retake the same track, except Certified Specific Independent Study.
4. For those who failed in the Certified Study Abroad track will retake the courses from the home campus.

Certified Internship Track

Code	Course Name	SCU	Total
Enrichment Program I			
COMP6426001	Industrial Experience in Information Technology	8	20
COMP6762001	Information Technology Practice in Industrial Experience	8	
COMP6514001	EES in Information Technology Industry	4	
Enrichment Program II			
COMP6429001	Professional Experience in Information Technology	8	20
COMP6763001	Information Technology Practice in Professional Experience	8	
COMP6430001	Professional Development in Information Technology Industry	4	

Certified Entrepreneurship Track

Code	Course Name	SCU	Total
Enrichment Program I			
ENTR6943001	New Venture Initiation in Computer Science	8	20
ENTR6945001	Computer Science Product Development Process	8	
ENTR6947001	EES in New Computer Science Business I	4	
Enrichment Program II			
ENTR6944001	Computer Science Product Launching	8	20
ENTR6946001	Computer Science Business Development	8	
ENTR6948001	EES in New Computer Science Business II	4	

Certified Research Track

Code	Course Name	SCU	Total
Enrichment Program I			
RSCH6565001	Research Experience I in Computer Science	8	20
RSCH6567001	Scientific Writing I in Computer Science	8	
RSCH6569001	Global EES I (Team Work, Communication, Problem Solving & Decision Making) in Computer Science	4	
Enrichment Program II			
RSCH6566001	Research Experience II in Computer Science	8	20
RSCH6568001	Scientific Writing II in Computer Science	8	
RSCH6570001	Global EES II (Self-Management, Planning & Organizing, Initiative & Enterprise)	4	

Certified Community Development Track

Code	Course Name	SCU	Total
Enrichment Program I			
CMDV6159001	Community Outreach Project Implementation	8	20
CMDV6343001	Community Outreach IT Project Design	8	
CMDV6208001	Employability and Entrepreneurial Skills in Computer Science Community	4	

Code	Course Name	SCU	Total
Enrichment Program II			
CMDV6184001	Community Development Project Implementation	8	20
CMDV6344001	Community Development IT Project Design	8	
CMDV6193001	Employability and Entrepreneurial Skills in Computer Science Community Development	4	

Certified Study Abroad Track

Code	Course Name	SCU	Total
Elective courses list for study abroad*			
Enrichment Program I			
GLOB6005001	Elective Course for Study Abroad 1	4	
GLOB6006001	Elective Course for Study Abroad 2	4	
GLOB6007001	Elective Course for Study Abroad 3	4	
GLOB6008001	Elective Course for Study Abroad 4	4	
GLOB6009001	Elective Course for Study Abroad 5	2	
GLOB6010001	Elective Course for Study Abroad 6	2	20
GLOB6011001	Elective Course for Study Abroad 7	2	
GLOB6012001	Elective Course for Study Abroad 8	2	
GLOB6013001	Elective Course for Study Abroad 9	2	
GLOB6014001	Elective Course for Study Abroad 10	2	
GLOB6015001	Elective Course for Study Abroad 11	2	
GLOB6016001	Elective Course for Study Abroad 12	2	
GLOB6251001	Elective Course for Study Abroad 29	4	
Enrichment Program II			
GLOB6017001	Elective Course for Study Abroad 13	4	
GLOB6018001	Elective Course for Study Abroad 14	4	
GLOB6019001	Elective Course for Study Abroad 15	4	
GLOB6020001	Elective Course for Study Abroad 16	4	
GLOB6021001	Elective Course for Study Abroad 17	2	
GLOB6022001	Elective Course for Study Abroad 18	2	
GLOB6023001	Elective Course for Study Abroad 19	2	20
GLOB6024001	Elective Course for Study Abroad 20	2	
GLOB6025001	Elective Course for Study Abroad 21	2	
GLOB6026001	Elective Course for Study Abroad 22	2	
GLOB6027001	Elective Course for Study Abroad 23	2	
GLOB6028001	Elective Course for Study Abroad 24	2	
GLOB6253001	Elective Course for Study Abroad 31	4	

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

Certified Specific Independent Study

Code	Course Name	SCU	Total
Elective courses list for certified specific independent study*			
CSIS6001001	Course Certification	3	
CSIS6002001	Technical Skill Enrichment	4	
CSIS6003001	Industrial Project	9	
CSIS6004001	Soft Skill Enrichment	4	
CSIS6005001	Elective Course for Specific Independent Study 1	8	
CSIS6006001	Elective Course for Specific Independent Study 2	8	
CSIS6007001	Elective Course for Specific Independent Study 3	6	
CSIS6008001	Elective Course for Specific Independent Study 4	6	
CSIS6009001	Elective Course for Specific Independent Study 5	6	
CSIS6010001	Elective Course for Specific Independent study 6	5	
CSIS6011001	Elective Course for Specific Independent Study 7	5	
CSIS6012001	Elective Course for Specific Independent Study 8	5	
CSIS6013001	Elective Course for Specific Independent Study 9	5	
CSIS6014001	Elective Course for Specific Independent Study 10	4	
CSIS6015001	Elective Course for Specific Independent Study 11	4	
CSIS6016001	Elective Course for Specific Independent Study 12	4	
CSIS6017001	Elective Course for Specific Independent Study 13	4	
CSIS6018001	Elective Course for Specific Independent Study 14	4	20
CSIS6019001	Elective Course for Specific Independent Study 15	3	
CSIS6020001	Elective Course for Specific Independent Study 16	3	
CSIS6021001	Elective Course for Specific Independent Study 17	3	
CSIS6022001	Elective Course for Specific Independent Study 18	3	
CSIS6023001	Elective Course for Specific Independent Study 19	3	
CSIS6024001	Elective Course for Specific Independent Study 20	3	
CSIS6025001	Elective Course for Specific Independent Study 21	2	
CSIS6026001	Elective Course for Specific Independent Study 22	2	
CSIS6027001	Elective Course for Specific Independent Study 23	2	
CSIS6028001	Elective Course for Specific Independent Study 24	2	
CSIS6029001	Elective Course for Specific Independent Study 25	2	
CSIS6030001	Elective Course for Specific Independent Study 26	2	
CSIS6031001	Elective Course for Specific Independent Study 27	2	
CSIS6032001	Elective Course for Specific Independent Study 28	2	
CSIS6033001	Elective Course for Specific Independent Study 29	1	
CSIS6034001	Elective Course for Specific Independent Study 30	1	
CSIS6035001	Elective Course for Specific Independent Study 31	1	
CSIS6036001	Elective Course for Specific Independent Study 32	1	

*) 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 32 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

Code	Course Name	SCU	Total
Enrichment Program II			
COMP6815001	IT Disaster Recovery	4	20
COMP6816001	Wireless and Cloud Computing Technologies	4	
COMP6817001	Internet Tools and Services	4	
COMP6818001	Cyber Risk Management	4	
COMP6819001	Knowledge Engineering	4	

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

No.	Course Code	Course Name	Minimal Grade
1.	CHAR6013001	Character Building: Pancasila	B
2.	ENTR6511001	Entrepreneurship: Market Validation	C
3.	COMP6047001	Algorithm and Programming*	C
4.	COMP6048001	Data Structures*	C
5.	COMP6798001	Program Design Methods*	C
6.	COMP6100001	Software Engineering*	C
7.	COMP6799001	Database Technology	C
8.	COMP6697001	Operating System	C

*) Tutorial & Multipaper