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.

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[2] *(AOL)*	4/2	
	COMP6798001	Program Design Methods[1] *(AOL)*	2	
	LANG6027001	Indonesian	2	
	STAT6171001	Basic Statistics	2	
	Foreign Language Courses		0	
2	CHAR6014001	Character Building: Kewarganegaraan	2	20
	COMP6048001	Data Structures[1&2] *(AOL)*	4/2	
	MATH6031001	Calculus *(AOL)*	4	
	ENPR6311001	Creativity and Innovation	2	
	COMP6800001	Human and Computer Interaction[2] *(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[1] *(AOL)*	4	
	CPEN6247001	Computer Networks *(AOL)*	2/1	
	COMP6065001	Artificial Intelligence[2] *(AOL)*	4	
	SCIE6063001	Computational Physics *(AOL)*	2/1	
	COMP6799001	Database Technology[2] *(AOL)*	2/1	
	COMP6820001	Object Oriented Programming[1&2]	2	
	Foreign Language Courses		0	
4	COMP6696001	Research Methodology in Computer Science[1] *(AOL)*	2	Streaming: 19/ 21 Minor / FE/ MST: 17
	COMP6100001	Software Engineering[2] *(AOL)*	4	
	SCIE6062001	Computational Biology	2/1	
	Streaming : Software Engineering			
	COSC6092001	Code Reengineering	2/2	
	COSC6093001	Software Architecture	2/2	
	COSC6094001	Mobile Hybrid Solution[2]	2/2	
	Streaming : Intelligent System			
	COMP6885001	Natural Language Processing[1&2]	2/2	
	COMP6577001	Machine Learning	4	
	COMP7116001	Computer Vision[1]	2/2	
	Streaming : Interactive Multimedia			
	COMP8129001	User Experience[1&2]	2/2	
	COSC6095001	Multimedia System and Programming Foundation[1&2]	2/2	

Sem	Code	Course Name	SCU	Total
	COSC6096001	Extended Reality	2	
	COMP7128001	Game Design	2	
	Streaming : Database Technology			
	COSC6097001	Data Engineering	2/1	
	COMP6579001	Big Data Processing[1&2]	2/2	
	COSC6098001	Data Visualization	2	
	COSC6099001	Data Analytics	2/1	
	Streaming : Network Technology			
	COMP6824001	Computer Security[1]	2/2	
	COMP6584001	Network and System Programming[1&2]	2/2	
	COSC6100001	Cloud Infrastructure	2/2	
	Stream: Internet of Things (IoT)[4]			
	COMP6849031	Embedded System	2/2	
	COMP6850031	Multimedia & Mixed Reality	2/1	
	MOBI6072031	Mobile Programming	2/1	
	COMP6655031	Cyber Security in IoT	2	
	Stream: Cloud Technology[4]			
	COMP6988031	Introduction to Cloud Computing	2/2	
	COMP6989031	Web Based Programming	2/2	
	COMP6990031	Introduction to Cloud security	2	
	Stream: Digital Creative Technology[6]			
	COMP6679004	Web Programming[2]	4	
	COSC6109004	Popular Programming Technology[1]	4	
	COSC6001004	User Experience	2	
	Stream: Immersive Technology[6]			
	COSC6002004	User Experience for Digital Immersive Technology	2	
	COSC6003004	Multimedia and 3D Modelling	2/2	
	COSC6004004	3D Web Programming	2/2	
	General Courses for Stream Digital Creative Technology & Immersive Technology[7]			
	COMP6955004	Database Design	2	
	Stream: Mobile and Game Technology[8]			
	COMP6897051	Game Design & Programming	2/2	
	COMP6898051	User Experience	2	
	COMP6899051	Machine Learning	2	
	COMP6900051	Mobile Embedded Systems	4	
	Stream: AI-Driven Development[10]			
	COSC6148060	Machine Learning & Data Mining for Business	4	

Sem	Code	Course Name	SCU	Total
	COSC6149060	Cloud Architecture	2	
	COSC6150060	DevOps Engineering	4	
	COSC6151060	Geographic Information System	2	
	Minor Program		8	
	Free Electives		8	
	Foreign Language Courses		0	
5	COMP6062001	Compilation Techniques	4	Streaming: 18/20 Minor / FE: 22
	COMP6697001	Operating System *(AOL)*	2	
	ENPR6312001	Venture Creation	2	
	Elective Courses[3]			
	COSC6108001	Mobile Programming	2	
	COMP6586001	Embedded Systems	2	
	COMP6226001	Competitive Programming[1]	2	
	COMP6821001	Web Programming	2	
	COSC6065001	Network Security Fundamental	2	
	COSC6101001	Mobile Professional Solution	2	
	Streaming : Software Engineering			
	COSC6102001	Software Metrics and Quality Assurance	2/2	
	COSC6103001	Mobile Technology Solution[2]	2/2	
	Streaming : Intelligent System			
	COMP6822001	Speech Recognition	2/2	
	COMP6826001	Deep Learning	2/2	
	Streaming : Interactive Multimedia			
	COMP6583001	Computer Graphics	2/2	
	COMP7139001	Game Programming[1]	4	
	Streaming : Database Technology			
	COMP6590001	Geographical Information System[1]	2/2	
	COMP6140001	Data Mining	2/2	
	Streaming : Network Technology			
	COSC6104001	Cloud Interfacing with Virtualization	2/2	
	COSC6105001	Cloud Native Applications	2/2	
	Streaming : Internet of Things (IoT)[4]			
	COMP6757031	Computer Vision in Internet of Things	2/2	
	COMP6882031	IoT Development and Architecture	2/2	
	Stream: Cloud Technology[4]			
	COMP6991031	Cloud Services	2/2	
	COMP6993031	Application Development in Cloud	2/2	
	COMP6992031	Software Development Operations in Cloud Environments	2	

Sem	Code	Course Name	SCU	Total
	Elective Courses for Stream Internet of Things (IoT) & Cloud Technology[5]			
	COSC6161031	Introduction to Biomedical Science	2	
	COSC6162031	Introduction to Semiconductor Devices and Applications	2	
	COSC6163031	IT Project	2	
	Stream: Digital Creative Technology[6]			
	COMP6678004	Big Data Analytics for Business	4	
	MOBI6063004	Mobile Application Programming[2]	4	
	COSC6005004	Agile Software Development	2	
	Stream Courses: Immersive Technology[6]			
	COSC6006004	Augmented Reality Application Programming	2/2	
	COSC6007004	Virtual Reality Application Programming	2/2	
	COSC6008004	Immersive Technology AI Based Capstone Project	2	
	Stream: Mobile and Game Technology[8]			
	COMP6903051	Computer Vision	2/2	
	COMP6905051	Mobile and Game Development Capstone Project	4	
	General Courses for stream Mobile and Game Technology[9]			
	COMP6923051	Hybrid Application Development	2	
	Stream: AI-Driven Development[10]			
	COSC6152060	Deep Learning & MLOps	4	
	COSC6153060	Capstone Project	4	
	General Course for Stream AI-Driven Development[11]			
	COSC6154060	Applied Artificial Intelligence for Enterprise	2	
	Minor Program		12	
	Free Electives		12	
6	**Enrichment Program I**		20	20
7	**Enrichment Program II**		20	20
8	COMP6747001	Pre-Thesis	2	6
	COMP6748001	Thesis	4	
	COMP6861001	Thesis	6	
			TOTAL CREDITS 146 Credits	

[1]) This course is delivered in English
[2]) Global Learning System Course
[3]) 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
[4]) Conducted for student mobility program in BINUS @Bandung
[5]) 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 @Bandung
[6]) Conducted for student mobility program in BINUS @Malang
[7]) This course must be taken by mobility students at BINUS@Malang, including those in stream and minor program
[8]) Conducted for student mobility program in BINUS @Semarang

9) *This course must be taken by mobility students at BINUS@Semarang, including those in stream and minor program*
10) *Conducted for student mobility program in BINUS @Medan*
11) *This course must be taken by mobility students at BINUS@Medan, including those in stream and minor program*
The detail of mobility, including streaming name and course information, may be subject to change at any time depending on the curriculum requirements of each campus. Students will be informed about any updates to mobility streaming during the registration period.
Students are required to choose one of the Streams or Minor Program or Free Electives or Mobility.
For Free Electives, students are required to choose from the list of Free Electives in Appendix.
Students will take foreign language courses according to BINUS University English proficiency test results. See foreign language courses appendix for the detail.

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

Streaming/Minor/Free Electives:
-) *For 4th Semester: Students are required to choose Streaming/ Minor/ Free Electives. 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 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 Beelingua Placement Test results. See foreign language courses appendix for the details. <u>Students must pass with a minimum Grade of C</u>.

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 Beelingua Placement Test score less than 60 are required to take English for Frontrunners and English for Independent Users.*

2. *Students with Beelingua Placement Test score between 60 and 99 are required to take English for Independent Users and English for Professionals.*

3. *Students with Beelingua Placement Test score greater than 99 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*

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*

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
Event Business and Entertainment	v	v
Creative Digital Storytelling	v	v
Digital Banking	v	v
Blockchain Technology and Business	v	v
English for Business Professionals	v	v
Minor @ Binus Alam Sutera		
Digital Transformation	v	v
Minor @ Binus Bekasi		
Virtual Service Experience	-	-
Culinary	v	v
Korean Culture and Creativity	v	v
Minor @ Binus Malang		
Digital Technopreneur	v	v
English for Business Professionals	v	v
Chinese for Career Pathway	v	v
Minor @ Binus Bandung		
Robotic Process Automation	v	v
DesignPreneur	v	v
Minor @ Binus Semarang		
Data Analytics	v	v
Metaverse in Business	v	v
Content Creation	v	v
Immersive Journey to Japanese Language and Culture	v	v
Minor @ Binus Medan		
Global Creative Business and Technology	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
LAWS6198028	Artificial Intelligence in Legal Discourse	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: Chinese for Career Pathway

Fundamental Courses

	Course	SCU
CHIN6196026	Mandarin for Future Career	4
CHIN6197026	Easy Way to HSK 2 Preparation	4
CHIN6198026	Exploring Modern Chinese Culture	2
	Total SCU	**10**

Supporting Courses

	Course	SCU
CHIN6199026	Chinese Digital Technology	2
CHIN6200026	Traveling to China	2
CHIN6202026	Global Strategic Marketing: Chinese Perspective	4
CHIN6201026	Special Topics in Chinese Business	2
	Total SCU	**10**

15. 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**

16. 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**

17. Minor Program: Content Creation

Fundamental Courses

	Course	SCU
FILM6105009	Filmmaking Fundamental	4

Course		SCU
MKTG6336055	Content Marketing Analytics	4
DSIN6042053	Photography for Creators	2
	Total SCU	10

Supporting Courses

Course		SCU
DSIN6094053	Content Storytelling	4
DSIN6043053	Strategic Influence	2
DSIN6041053	Introduction to Visual Communication Design	4
	Total SCU	10

18. Minor Program: Immersive Journey to Japanese Language and Culture

Fundamental Courses

Course		SCU
JAPN6221025	Essential Japanese Grammar (Yoku Tsukaeru Bunpou）	4
JAPN6222025	Survival Japanese in Various Situations (Nihon E Ikou, Yasashii Kaiwa De）	4
JAPN6223025	Ideas and Images of Japan (Nihon Jijou）	2
	Total SCU	10

Supporting Courses

Course		SCU
JAPN6224025	Japanese Reading Comprehension (Tanoshiku Yomou）	4
JAPN6225025	Understanding Native Japanese Speakers (Tanoshiku Kikou)	2
JAPN6226025	Japanese N5 Level Certification Preparation (Nihongo Charenji N5）	4
	Total SCU	10

19. Minor Program: Global Creative Business and Technology

Fundamental Courses

Course		SCU
DSIN6142066	Global Interactive Design	4
BUSS6275061	E-Commerce and Digital Entrepreneurship	4
COSC6159060	Emerging Technologies in Global Business	4
ISYS6997064	Blockchain for Digital Economy	4
TRDE6001065	Global Regulatory Environment	4
	Total SCU	20

Appendix: Free Electives (4th Semester & 5th Semester)
Students will receive information about Free Electives during the registration period.

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	20
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	
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	20
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	
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

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

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.	COMP6047001	Algorithm and Programming*	C
3.	COMP6798001	Program Design Methods*	C
4.	COMP6048001	Data Structures*	C
5.	COMP6799001	Database Technology	C
6.	COMP6100001	Software Engineering*	C
7.	COMP6697001	Operating System	C
8.	ENPR6312001	Venture Creation	C

*) Tutorial