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 Medan Campus emphasizes the processes, techniques, and tools that go into developing computer-based systems with Artificial intelligence technologies, with specialties 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 emerging technology and business innovation, fostering and empowering society in building and serving the nation through digital technology and technopreneur.

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 computer science to solve real-world problems through digital technology and technopreneur approach.
2. Preparing our graduates to develop exemplary soft skills & technical skills required as ICT professionals, leaders, and entrepreneurs in global market.
3. Promoting high impact research that contributes to the nation in digital technology themes.
4. Fostering BINUSIAN as lifelong learners through self-enrichment.
5. Empowering BINUSIAN to continuously improve society's quality of life through digital technology and technopreneur approach.

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. Artificial Intelligence Specialist
2. Data Analyst / Engineer / Scientist
3. Network Analyst / Engineer
4. System Analyst
5. Back End Developer
6. Front End Developer
7. Full Stack Developer
8. Machine Learning Engineer
9. Software Developer
10. Technopreneur
11. IT Consultant

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:

- AI-Driven Development: to explore the various Artificial Technologies and methodologies to enhance and automate various stages of software development.
- 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	CHAR6046060	Character Building: Pancasila	2	20
	MATH6222060	Discrete Mathematics	4	
	MATH6223060	Linear Algebra	2	
	COSC6068060	Algorithm and Programming[2]	4/2	
	COSC6069060	Program Design Methods[1]	2	
	LANG6121060	Indonesian	2	
	STAT6216060	Basic Statistics	2	
	Foreign Language Courses		0	
2	CHAR6047060	Character Building: Kewarganegaraan	2	20
	COSC6070060	Data Structures[1&2]	4/2	
	MATH6224060	Calculus	4	
	ENPR6333060	Creativity and Innovation	2	
	COSC6147060	Human and Computer Interaction[2]	2/1	
	MATH6225060	Scientific Computing	2/1	
	Foreign Language Courses		0	
3	CHAR6048060	Character Building: Agama	2	21
	COSC6072060	Algorithm Design and Analysis[1]	4	
	CPEN6276060	Computer Networks	2/1	
	COSC6076060	Artificial Intelligence[2]	4	
	SCIE6095060	Computational Physics	2/1	
	COSC6073060	Database Technology[2]	2/1	
	COSC6158060	Object Oriented Programming[1&2]	2	
	Foreign Language Courses		0	
4	COSC6078060	Research Methodology in Computer Science[1]	2	Streaming: 19/ 21 Minor / FE/ MST: 17
	COSC6071060	Software Engineering[2]	4	
	SCIE6096060	Computational Biology	2/1	
	Stream: AI-Driven Development[3]			
	COSC6148060	Machine Learning & Data Mining for Business	4	
	COSC6149060	Cloud Architecture	2	
	COSC6150060	DevOps Engineering	4	
	COSC6151060	Geographic Information System	2	
	Stream: Software Engineering[5]			
	COSC6092001	Code Reengineering	2/2	
	COSC6093001	Software Architecture	2/2	
	COSC6094001	Mobile Hybrid Solution[2]	2/2	
	Stream: Intelligent System[5]			
	COMP6885001	Natural Language Processing[1&2]	2/2	

Sem	Code	Course Name	SCU	Total
	COMP6577001	Machine Learning	4	
	COMP7116001	Computer Vision[1]	2/2	
	Stream: Interactive Multimedia[5]			
	COMP8129001	User Experience[1&2]	2/2	
	COSC6095001	Multimedia system and Programming Foundation[1&2]	2/2	
	COSC6096001	Extended Reality	2	
	COMP7128001	Game Design	2	
	Stream: Database Technology[5]			
	COSC6097001	Data Engineering	2/1	
	COMP6579001	Big Data Processing[1&2]	2/2	
	COSC6098001	Data Visualization	2	
	COSC6099001	Data Analytics	2/1	
	Stream: Network Technology[5]			
	COMP6824001	Computer Security[1s]	2/2	
	COMP6584001	Network and System Programming[1&2]	2/2	
	COSC6100001	Cloud Infrastructure	2/2	
	Stream: Internet of Things (IoT)[7]			
	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[7]			
	COMP6679004	Web Programming[2]	4	
	COSC6109004	Popular Programming Technology[1]	4	
	COSC6001004	User Experience	2	
	Stream: Immersive Technology[9]			
	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[10]			
	COMP6955004	Database Design	2	
	Stream: Mobile and Game Technology[11]			
	COMP6897051	Game Design & Programming	2/2	
	COMP6898051	User Experience	2	
	COMP6899051	Machine Learning	2	
	COMP6900051	Mobile Embedded Systems	4	
	Minor Program		8	

Sem	Code	Course Name	SCU	Total
	Free Electives		8	
	Foreign Language Courses		0	
	COSC6075060	Operating System	2	
	COSC6079060	Compilation Techniques	4	
	ENPR6334060	Venture Creation	2	
	Elective Courses[6]			
	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[5]			
	COSC6102001	Software Metrics and Quality Assurance	2/2	
	COSC6103001	Mobile Technology Solution[2]	2/2	
	Streaming : Intelligent System[5]			
	COMP6822001	Speech Recognition	2/2	
	COMP6826001	Deep Learning	2/2	
	Streaming : Interactive Multimedia[5]			
5	COMP6583001	Computer Graphics	2/2	Streaming: 18/ 20 Minor / FE: 22
	COMP7139001	Game Programming[1]	4	
	Streaming : Database Technology[5]			
	COMP6590001	Geographical Information System[1]	2/2	
	COMP6140001	Data Mining	2/2	
	Streaming : Network Technology[5]			
	COSC6104001	Cloud Interfacing with Virtualization	2/2	
	COSC6105001	Cloud Native Applications	2/2	
	Streaming : Internet of Things (IoT)[7]			
	COMP6757031	Computer Vision in Internet of Things	2/2	
	COMP6882031	IoT Development and Architecture	2/2	
	Stream: Cloud Technology[7]			
	COMP6991031	Cloud Services	2/2	
	COMP6993031	Application Development in Cloud	2/2	
	COMP6992031	Software Development Operations in Cloud Environments	2	
	Elective Courses for Stream Internet of Things (IoT) & Cloud Technology[8]			
	COSC6161031	Introduction to Biomedical Science	2	
	COSC6162031	Introduction to Semiconductor Devices and Applications	2	
	COSC6163031	IT Project	2	

Sem	Code	Course Name	SCU	Total
	Stream: Digital Creative Technology[9]			
	COMP6678004	Big Data Analytics for Business	4	
	MOBI6063004	Mobile Application Programming[2]	4	
	COSC6005004	Agile Software Development	2	
	Stream Courses: Immersive Technology[9]			
	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[11]			
	COMP6903051	Computer Vision	2/2	
	COMP6905051	Mobile and Game Development Capstone Project	4	
	General Courses for stream Mobile and Game Technology[12]			
	COMP6923051	Hybrid Application Development	2	
	Stream: AI-Driven Development[3]			
	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	COSC6155060	Pre-Thesis	2	6
	COSC6156060	Thesis	4	
	COSC6157060	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 and minor program 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
ENGL6278060	English for Frontrunners	0
ENGL6279060	English for Independent Users	0
ENGL6280060	English for Professionals	0
JAPN6214060	Basic Japanese Language*	0
CHIN6195060	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		
Blockchain Technology and Business	v	v
Creative Digital Storytelling	v	v
Cross Cultural Communication	v	v
Data Analytics	v	v
Digital Banking	v	v
Digital Ecosystem	-	-
Event Business and Entertainment	v	v
Human Capital in Digital Workplace	v	v
Interactive & Users Experience Design	v	v
Robotic Process Automation	v	v
Sustainable Development	v	v
English for Business Professionals	v	v
Minor @ BINUS Alam Sutera		
Digital Transformation	v	v
Minor @ BINUS Bekasi		
Culinary	v	v
Korean Culture and Creativity	v	v
Minor @ BINUS Malang		
Digital Technopreneur	v	v
Chinese for Career Pathways	v	v
English for Business Professionals	v	v
Minor @ BINUS Bandung		
Designpreneur	v	v
Minor @ BINUS Semarang		
Content Creation	v	v
Metaverse in Business	v	v
Immersive Journey to Japanese Language and Culture	v	v
Minor @ BINUS Medan		
Global Business	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
INFS6066052	Introduction to Data Analytics	2
INFS6067052	Data Management & Descriptive Analytics	4
ISYE6371054	Statistical for Decision Making	4
	Total SCU	**10**

Supporting Courses

Course		SCU
COSC6183051	Application of Predictive Analytics to Business Data	4
ISYE6372054	Prescriptive Analytics and Optimization	4
BUSS6277055	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: English for Business Professionals

Fundamental Courses

Course		SCU
ENGL6154024	English for Business Communications	4
MKTG6112024	Language Innovations in Marketing and Advertising	2
ENGL6244024	Social Media Broadcasting	4
	Total SCU	10

Supporting Courses

Course		SCU
ENGL6258024	English for Global Leadership	2
ENGL6169024	English for Professionals	2
COMM6506024	Current Issues in Business Communications	2
ENGL6245024	Business Rhetoric	4
	Total SCU	10

12. 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

13. 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

14. Minor Program: Korean Culture and Creativity

Fundamental Courses

Course		SCU
HTMN6163021	Korean Cuisine and Culinary Arts	4
COMM6718019	Korean Language and Media	4
FILM6134009	Hallyu Creative Content	2
	Total SCU	10

SCU for HTMN6008021, HTMN6128021 are practical

Supporting Courses

Course		SCU
FILM6135009	K-Drama and Beyond: Analysis and Appreciation	4
COMM6719019	K-Pop Culture and Performance	4
MKTG6339005	K-Pop and K-Drama Marketing and Promotion	2
	Total SCU	10

15. 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

16. 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**

17. 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**

18. 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**

19. Minor Program: Content Creation

Fundamental Courses

Course		SCU
FILM6105009	Filmmaking Fundamental	4
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**

20. 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**

21. Minor Program: Global Business

Fundamental Courses

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

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

No	Course Owner Department	Course Code	Course Name	SCU	Semester
1	Business Creation	ENPR6107005	Business Communication & Strategy	4	5
2	Business Creation	ENPR6142005	Digital Business Transformation	4	5
3	Business Creation	ENPR6104005	Digital Marketing and Analytics	4	4
4	Business Creation	ENPR6106005	Product Design & Branding	2	5
5	Business Law	LAWS6159005	Legal Aspect in Business	2	4
6	Business Management	MGMT6365005	Current Issue in Service Business and Technology	2	4
7	Business Management	MGMT6456005	Fundamentals of Supply Chain Management	4	4
8	Business Management	MGMT6459005	Retail Management	4	5
9	Business Management	MKTG6324005	Retail Marketing Management	2	5
10	Global Business Marketing	MKTG6237005	Global Strategic Marketing : Asia Pacific Perspective	4	4
11	Global Business Marketing	MKTG6237005	Global Strategic Marketing : Asia Pasific Perspective	4	5
12	Global Business Marketing	MGMT6358005	Managing Business Information	2/2	4

No	Course Owner Department	Course Code	Course Name	SCU	Semester
13	Global Business Marketing	MKTG6321005	Marketing Data Analytics	4	4
14	Global Business Marketing	MKTG6321005	Marketing Data Analytics	4	5
15	International Business Management	MGMT6458005	Global Supply Chain Management	2	4
16	International Business Management	MGMT6357005	Multinational Corporation Management	4	5
17	International Business Management	BUSS6224005	Special Topics in International Business	4	5
18	International Business Management	BUSS6223005	Trade in Asia	2	5
19	Management	BUSS6109005	Business Development	4	4
20	Management	ISYS6744005	E-Business Strategy and Implementation	4	4
21	Management	MGMT6462005	Leadership Agility	4	4
22	Hotel Management	HTMN6147021	Hospitality Management	4	4
23	Hotel Management	HTMN6147021	Hospitality Management	4	5
24	Marketing Communication	COMM6533019	Creative Program Design	2/2	5
25	Marketing Communication	COMM6541019	Digital Corporate Communication	2/2	5
26	Marketing Communication	COMM6624019	Digital Creative Content	2/2	5
27	Marketing Communication	COMM6425019	Event Management	2	4
28	Marketing Communication	COMM6613019	Introduction to Media Industry	2	4
29	Tourism	TRSM6142022	Event Management	4	4
30	Tourism	TRSM6142022	Event Management	4	5
31	Tourism	TRSM6212022	Indonesian Culture	4	4
32	Tourism	TRSM6212022	Indonesian Culture	4	5
33	Tourism	BUSS6137022	Tourism E-Business	4	4
34	Tourism	BUSS6137022	Tourism E-Business	4	5
35	Architecture	ARCH6128014	Multimedia in Design Presentation	4	5
36	Biotechnology	BTEC6020056	Current Issue in Biotechnology	2	5
37	Civil Engineering	COMP6046013	Computer Applications in Construction Management	2	5
38	Civil Engineering	CIVL6080013	Construction Methods & Heavy Equipment	2	5
39	Computer Engineering	CPEN6232010	Cloud Technology Practice	2	5
40	Computer Engineering	CPEN6126010	Cross Platform Application Development	4	5
41	Industrial Engineering	ISYE6041011	Engineering Economy	2	4
42	Industrial Engineering	ISYE6067011	Global Supply Chain	2	5
43	Industrial Engineering	ISYE6113011	Leadership & Organizational Behavior	2	4
44	Industrial Engineering	ISYE6130011	Project Management	2	5
45	Industrial Engineering	ISYE6181011	System Engineering & Analysis	2	4
46	Business Law	LAWS6052028	Bankruptcy Law	2	5
47	Business Law	LAWS6171028	Business Competition & Consumer Protection Law	2	5
48	Business Law	LAWS6110028	Cyber Law	2	5

No	Course Owner Department	Course Code	Course Name	SCU	Semester
49	Business Law	LAWS6017028	Intellectual Property Rights	4	5
50	Business Law	LAWS6167028	Legal Philosophy & Professional Ethics	2	5
51	Business Law	LAWS6176028	Tax Law	2	5
52	Chinese Literature	CHIN6157026	Chinese Business for Etiquette (Beginner)	4	4
53	Chinese Literature	CHIN6157026	Chinese Business for Etiquette (Beginner)	4	5
54	Chinese Literature	CHIN6159026	Chinese Character Writing	2	4
55	Chinese Literature	CHIN6159026	Chinese Character Writing	2	5
56	English Literature	ENGL6169024	English for Professionals	2	4
57	English Literature	ENGL6169024	English for Professionals	2	5
58	English Literature	SOCS6021024	Social and Digital Media Writing	2	4
59	English Literature	SOCS6021024	Social and Digital Media Writing	2	5
60	English Literature	ENGL6244024	Social Media Broadcasting	4	4
61	English Literature	ENGL6244024	Social Media Broadcasting	4	5
62	International Relations	INTR6137029	Indonesia in Perspectives	2	5
63	International Relations	INTR6158029	Indonesia's Defense and Security Policy	2	4
64	International Relations	INTR6180029	Introduction to International Media	2	5
65	International Relations	INTR6178029	Introduction to International Political Economy	2	5
66	International Relations	INTR6162029	Multiculturalism and Digital Society	2	4
67	Japanese Literature	JAPN6111025	Introductory Japanese I	4	4
68	Japanese Literature	JAPN6111025	Introductory Japanese I	4	5
69	Computer Science	COMP6821001	Web Programming	2	5
70	Primary Teacher Education	EDUC6108030	Coding for Children	2	4
71	Primary Teacher Education	EDUC6108030	Coding for Children	2	5
72	Primary Teacher Education	EDUC6097030	Inclusive Education	2	4
73	Primary Teacher Education	EDUC6098030	Technology for Adaptive Learning	4	4
74	Psychology	PSYC6191027	E-Learning Psychology	4	5
75	Psychology	PSYC6123027	Educational Psychology	2	4
76	Psychology	PSYC6124027	Psychology of Early Childhood Education	4	5
77	Psychology	PSYC6125027	Psychology of Special Needs Education	4	5
78	Computer Science	COMP7128001	Game Design	2	4
79	Computer Science	COMP6590001	Geographical Information System	2/2	5
80	Computer Science	COMP8129001	User Experience	2/2	4
81	Cyber Security	COMP6549001	Software Security	2	4
82	Cyber Security	COMP6542001	Computer Security Fundamental	2	5
83	Data Science	DTSC6013001	Data Mining and Visualization	2	4
84	Data Science	DTSC6014001	Machine Learning	2	5
85	Game Application and Technology	GAME6085001	Object Oriented Game Programming	2	5

No	Course Owner Department	Course Code	Course Name	SCU	Semester
86	Statistics	STAT6157049	Data Mining and Visualization	2	5
87	Animation	DSGN6689007	Concept Art & Production Design	2	5
88	Creative Advertising	DSGN6671007	Creative Writing for Commercials	4	4
89	Creative Advertising	DSGN6651007	Photography	4	4
90	New Media	DSGN6743007	Digital Graphic Reproduction	4	5
91	Film	FILM6059009	Global Cinema	4	5
92	Business Information Technology	ISYS6574003	Information Retrieval	4	4
93	Business Information Technology	ISYS6579003	Knowledge-Based AI: Cognitive Systems	4	5
94	Business Information Technology	ISYS6823003	Machine Learning & Foundations	4	4
95	Business Information Technology	ISYS6606003	Smart Application	2	4
96	Information Systems	ISYS6897003	Digital Innovation	2	4
97	Information Systems	ISYS6256003	Information Systems Project Management	4	4
98	Information Systems	ISYS6900003	IT Governance & Security	4	4
99	Information Systems	ISYS6894003	IT Infrastructure & Emerging Technology	4	4
100	Information Systems	ISYS6596003	User Experience Research and Design	4/2	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			
COSC6083060	Industrial Experience in Computer Science I	8	20
COSC6085060	Professional Development in Computer Science I	8	
COSC6084060	EES in Computer Science I	4	
Enrichment Program II			
COSC6086060	Industrial Experience in Computer Science II	8	20
COSC6088060	Professional Development in Computer Science II	8	
COSC6087060	EES in Computer Science II	4	

Certified Entrepreneurship Track

Code	Course Name	SCU	Total
Enrichment Program I			
ENPR6341060	New Venture Initiation in Computer Science	8	20
ENPR6342060	Computer Science Product Development Process	8	
ENPR6343060	EES in New Computer Science Business I	4	
Enrichment Program II			
ENPR6344060	Computer Science Product Launching	8	20
ENPR6345060	Computer Science Business Development	8	
ENPR6346060	EES in New Computer Science Business II	4	

Certified Research Track

Code	Course Name	SCU	Total
Enrichment Program I			
RSCH6974060	Research Experience I in Computer Science	8	20
RSCH6975060	Scientific Writing I in Computer Science	8	
RSCH6976060	Global EES I (Team Work, Communication, Problem Solving & Decision Making) in Computer Science	4	
Enrichment Program II			
RSCH6977060	Research Experience II in Computer Science	8	20
RSCH6978060	Scientific Writing II in Computer Science	8	
RSCH6979060	Global EES II (Self-Management, Planning & Organizing, Initiative & Enterprise)	4	

Certified Community Development Track

Code	Course Name	SCU	Total
Enrichment Program I			
CMDV6706060	Community Outreach Project Implementation	8	20
CMDV6707060	Community Outreach IT Project Design	8	
CMDV6708060	Employability and Entrepreneurial Skills in Computer Science Community	4	
Enrichment Program II			
CMDV6709060	Community Development Project Implementation	8	20
CMDV6710060	Community Development IT Project Design	8	
CMDV6711060	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			
GLEC6001060	Elective Course for Study Abroad 1	4	20
GLEC6002060	Elective Course for Study Abroad 2	4	
GLEC6003060	Elective Course for Study Abroad 3	4	
GLEC6004060	Elective Course for Study Abroad 4	4	
GLEC6005060	Elective Course for Study Abroad 5	2	
GLEC6006060	Elective Course for Study Abroad 6	2	
GLEC6007060	Elective Course for Study Abroad 7	2	
GLEC6008060	Elective Course for Study Abroad 8	2	
GLEC6009060	Elective Course for Study Abroad 9	2	
GLEC6010060	Elective Course for Study Abroad 10	2	
GLEC6011060	Elective Course for Study Abroad 11	2	
GLEC6012060	Elective Course for Study Abroad 12	2	
GLEC6013060	Elective Course for Study Abroad 29	4	
Enrichment Program II			20
GLEC6014060	Elective Course for Study Abroad 13	4	

Code	Course Name	SCU	Total
GLEC6015060	Elective Course for Study Abroad 14	4	
GLEC6016060	Elective Course for Study Abroad 15	4	
GLEC6017060	Elective Course for Study Abroad 16	4	
GLEC6018060	Elective Course for Study Abroad 17	2	
GLEC6019060	Elective Course for Study Abroad 18	2	
GLEC6020060	Elective Course for Study Abroad 19	2	
GLEC6021060	Elective Course for Study Abroad 20	2	
GLEC6022060	Elective Course for Study Abroad 21	2	
GLEC6023060	Elective Course for Study Abroad 22	2	
GLEC6024060	Elective Course for Study Abroad 23	2	
GLEC6025060	Elective Course for Study Abroad 24	2	
GLEC6026060	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*			
CSIS6162060	Course Certification	3	
CSIS6163060	Technical Skill Enrichment	4	
CSIS6164060	Industrial Project	9	
CSIS6165060	Soft Skill Enrichment	4	
CSIS6166060	Elective Course for Specific Independent Study 1	8	
CSIS6167060	Elective Course for Specific Independent Study 2	8	
CSIS6168060	Elective Course for Specific Independent Study 3	6	
CSIS6169060	Elective Course for Specific Independent Study 4	6	
CSIS6170060	Elective Course for Specific Independent Study 5	6	
CSIS6171060	Elective Course for Specific Independent Study 6	5	
CSIS6172060	Elective Course for Specific Independent Study 7	5	
CSIS6173060	Elective Course for Specific Independent Study 8	5	
CSIS6174060	Elective Course for Specific Independent Study 9	5	
CSIS6175060	Elective Course for Specific Independent Study 10	4	
CSIS6176060	Elective Course for Specific Independent Study 11	4	
CSIS6177060	Elective Course for Specific Independent Study 12	4	
CSIS6178060	Elective Course for Specific Independent Study 13	4	
CSIS6179060	Elective Course for Specific Independent Study 14	4	20
CSIS6180060	Elective Course for Specific Independent Study 15	3	
CSIS6181060	Elective Course for Specific Independent Study 16	3	
CSIS6182060	Elective Course for Specific Independent Study 17	3	
CSIS6183060	Elective Course for Specific Independent Study 18	3	
CSIS6184060	Elective Course for Specific Independent Study 19	3	
CSIS6185060	Elective Course for Specific Independent Study 20	3	
CSIS6186060	Elective Course for Specific Independent Study 21	2	
CSIS6187060	Elective Course for Specific Independent Study 22	2	
CSIS6188060	Elective Course for Specific Independent Study 23	2	
CSIS6189060	Elective Course for Specific Independent Study 24	2	
CSIS6190060	Elective Course for Specific Independent Study 25	2	
CSIS6191060	Elective Course for Specific Independent Study 26	2	
CSIS6192060	Elective Course for Specific Independent Study 27	2	
CSIS6193060	Elective Course for Specific Independent Study 28	2	
CSIS6194060	Elective Course for Specific Independent Study 29	1	
CSIS6195060	Elective Course for Specific Independent Study 30	1	
CSIS6196060	Elective Course for Specific Independent Study 31	1	
CSIS6197060	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

-

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

No.	Course Code	Course Name	Minimal Grade
1.	CHAR6046060	Character Building: Pancasila	B
2.	COSC6068060	Algorithm and Programming*	C
3.	COSC6069060	Program Design Methods*	C
4.	COSC6070060	Data Structures*	C
5.	COSC6073060	Database Technology	C
6.	COSC6071060	Software Engineering*	C
7.	COSC6075060	Operating System	C
8.	ENPR6334060	Venture Creation	C

*) Tutorial