Industrial Engineering

Introduction

Industrial engineering is a branch of engineering that focuses on describing, evaluating, designing, modifying, controlling, and improving the performance of integrated systems involving people, materials, and technology within their relevant context and over time. It combines fundamental knowledge in mathematics, physical, and engineering sciences with the principles and methods of engineering analysis and design. This field recognizes the central role of human beings in the complexity of such systems. With globalization increasing opportunities for service industries worldwide, there is a growing demand for industrial engineers. The industrial engineering curriculum at BINUS UNIVERSITY is designed to adapt to the globalization movement and meet the globalized world's needs.

The study program focuses on applying engineering fundamentals with an equal emphasis on theory, design, and practical experience. Computer applications are integrated throughout the curriculum. The Industrial Engineering department offers flexibility to students through three tracks: Supply Chain Engineering, Service Systems Engineering, and Manufacturing Systems Engineering. Some core courses require students to understand theoretical concepts and how to implement them in time study analysis. The Industrial Engineering facilities are well-equipped for engineering graphics, industrial engineering systems design, and human performance. Students have access to various laboratories such as the Physics Lab, Manufacturing Process Lab, Technical Drawing Lab, Simulation Lab, Work Design, and Ergonomics Laboratory.

Vision

To become a reputable and an innovative Industrial Engineering study program through the integration of updated technology to foster and empower the nation's society

Mission

1. Providing world-class education experiences in the field of Industrial system engineering.
2. Providing high-impact and innovative research and professional services by utilizing updated knowledge and technologies.
3. Organizing community services activities to foster a society that is relevant to Industrial System Engineering or related disciplines.
4. Empowering the society to contribute to improving the quality of life of the Indonesian communities

Program Objective

The objectives of the program are:

1. (POBJ-1) Apply principles of engineering design, science, mathematics, and experimentation to produce innovative solutions that are considered beneficial to communities, the economy, and the environment.
2. (POBJ-2) Possess effective communication, teamwork, and leadership skills and commit to the standard of the profession and ethical practice in engineering situations
3. (POBJ-3) Continuously develop oneself to meet the evolving demands including engineering judgment ability, and increasing responsibilities of a successful career, to benefit the organization and society

Student Outcomes

After completing the study, graduates are:

1. (SO 1) An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics

2. (SO 2) An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
3. (SO 3) An ability to communicate effectively with a range of audiences
4. (SO 4) An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal context.
5. (SO 5) An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
6. (SO 6) An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusion.
7. (SO 7) An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

After finishing the program, the graduate of Industrial Engineering Program could follow a career as:

1. Operation & Production Engineer
2. Quality Control/Assurance Engineer
3. Supply Chain Engineer & Analyst
4. Analyst
5. Product Specialist
6. Data Management & Specialist
7. Purchasing & Procurement Operation
8. Safety & Health Engineer
9. Digital Transformation Analyst

Curriculum

The Industrial Engineering Program focuses on the design, modification, control, and improvement of complex systems. Therefore, a strong foundation in mathematics and computer science is essential for modeling and solving these systems. The curriculum is structured to ensure that students master various scientific fields, including mathematics, physics, humanities/social sciences, computer science and management, general engineering sciences, industrial engineering core, lab sciences, professional engineering practice, and industrial engineering specialization.

Course Structure

Sem	Code	Course Name	SCU	Total
1	CHAR6044054	Character Building: Pancasila	2	20
	SCIE6070054	Physics I	4	
	SCIE6071054	Chemistry	3	
	MATH6202054	Calculus I	4	
	ENGR6095054	Technical Drawing *&**	2/1	
	ISYE6247054	System Engineering & Analysis** &	2	
	ISYE6250054	Industrial Economy and Accounting	2	
	Foreign Language Courses		0	
2	CHAR6045054	Character Building: Kewarganegaraan	2	20

Sem	Code	Course Name	SCU	Total
	COSC6061054	Foundation of Artificial Intelligence	2	
	SCIE6073054	Physics II	4/1	
	MATH6203054	Calculus II	4	
	STAT6203054	Probability Theory	2	
	ISYE6249054	Deterministic Optimization*&**	3	
	ISYE6254054	Data Analysis & Visualization	2	
	Foreign Language Courses		0	
3	CHAR6043054	Character Building: Agama	2	21
	MATH6206054	Linear and Discrete Mathematics	4	
	MATH6207054	Calculus III	4	
	STAT6208054	Applied Statistics*	2	
	ISYE6251054	Human-Integrated Systems**	2/1	
	SCIE6072054	Biology	2	
	LANG6114054	Indonesian	2	
	COMP6958054	Introduction to Programming	2	
	Foreign Language Courses			
4	ENPR6317054	Creativity and Innovation	2	19
	ISYE6253054	Stochastic Processes***	2	
	ISYE6255054	Production & Operation Analysis***	3/1	
	ISYE6258054	Additive & Manufacturing Process**	2/1	
	ISYE6259054	Engineering Economy**	2	
	ISYE6260054	Leadership & Organizational Behavior*&**	2	
	ISYE6304054	Facility Planning & Safety Engineering* & ***	4	
	Foreign Language Courses			
5	ENPR6318054	Venture Creation	2	20
	ISYE6256054	Quality Engineering** & ***	3	
	ISYE6261054	Systems Simulation**	3	
	ISYE6262054	Research Methodology	2	
	Streaming: Industrial Digital Transformation (Semarang) 1)			
	ISYE6305054	Digital Transformation Strategies*&**	3	
	ISYE6315054	Data Science: Machine Learning.	2/1	
	IISYE6314054	Database & Warehousing System**	3/1	
	Streaming: Supply Chain Engineering (Greater Jakarta)2)			
	ISYE6164011	E-Supply Chain Management	2/1	
	ISYE6183011	Warehouse Management Systems	2	
	ISYE6301011	Data Science: Machine Learning	3	
	Streaming: Service Systems Engineering (Greater Jakarta)2)			
	ISYE6166011	Dynamic Service Facility Design	2/1	

Sem	Code	Course Name	SCU	Total
	ISYE6066011	Human Interaction in Service Systems	2	
	ISYE6302011	E-Service and Usability Engineering	3	
	Streaming: Manufacturing Systems (Greater Jakarta)[2)]			
	ISYE6184011	Manufacturing Processes	2/1	
	ENGR6005011	Mechanics of Materials	2	
	ISYE6303011	Smart Manufacturing	3	
	Elective Supply Chain Engineering Courses[3)]			
	ISYE6067011	Global Supply Chain*	2	
	ISYE6165011	Supply Chain Risk & Negotiation	2	
	ISYE6115011	Transportation Modeling	2	
	Elective Service Systems Engineering Courses[3)]			
	MKTG6128011	Market Research	2	
	ISYE6167011	Decision Support System	2	
	ISYE6168011	Financial Engineering*	2	
	Elective Manufacturing Systems Courses[3)]			
	ISYE6130011	Project Management	2	
	ISYE6169011	Maintenance Management Systems	2	
	ISYE6170011	Sustainable Engineering Systems*	2	
	Free Electives		10	
6	**Enrichment Program I**		20	20
7	**Enrichment Program II**		20	20
8	COMP6906051	Pre-Thesis	2	
	COMP6907051	Thesis	4	6
	COMP6908051	Thesis	6	
			TOTAL CREDITS 146 Credits	

**This course is delivered in English*
***Global Learning System course*
**** This course is AI Embedded*
Students choose 1 course (2 credits) of elective track course in [1)]BINUS @ Semarang and in [3)] BINUS @Greater Jakarta based on preferred track
[2)] Conducted for student mobility program in BINUS @Greater Jakarta
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. Students must pass with a minimum Grade of C.

Appendix Foreign Language Courses

Foreign Language Courses		SCU
ENGL6264054	English for Frontrunners	0
ENGL6265054	English for Independent Users	0
ENGL6266054	English for Professionals	0

JAPN6207054	Basic Japanese Language	0
CHIN6184054	Basic Chinese Language	0

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

The minor programs can change anytime based on the trends of knowledge and industry each year. Students will receive information about the updated minor programs during the registration period.

1. Minor Program: Digital Storytelling

Introduction

Digital storytelling, by definition, is the process of telling a story using video, images, audio, music, geospatial applications, and any other digital media. Thus, this minor introduces the concept and skills in producing and communicating videos, images, and texts through English. It is interdisciplinary in its nature and relies heavily on critical and analytical thinking. It also aims to familiarize students with the technology/tools needed to adapt a literary work to another form or vice versa. It is the minor that blend perspectives of arts with humanities to facilitate new interpretation of literary works.

Career Options

Social Media Content Creator; Digital Storyteller ; Brand Designer ; Digital Storytelling News Editor; Social Media Specialist; Digital Associate; Video Editor ; Content Creator; Content Creator; Scriptwriter; Fiction writers ; Non-Fiction Writers ; Copywriter ; Social Media Specialist.

Course Distribution

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

Additional Information

None

2. Minor Program: Cross Cultural Communication

Introduction

This minor program equips students with the ability to communicate using languages and understanding cultures of foreign parties. In addition, this minor program enables students to apply intercultural awareness through both Indonesian and foreign languages and cultures.

Career Options

Language specialist, language localization specialist, translator, interpreter, mobility consultant/staff.

Course Distribution

Fundamental Courses

Course		SCU
CHIN6132026	Chinese Conversation in Daily Activities	4
COMM6502019	Communication in Diversity	2

Course		SCU
BUSS6170025	Asian Business Ethics	4
	Total SCU	**10**

Additional Information

None

3. Minor Program: Data Analytic

Introduction

The Data Analytics minor program provides insight into acquisitions and analysis of data in organizations by using critical thinking from multiple strategic perspectives, including consumer behavior communicated in the form of visualizations/models that can support retrieval decision.

Career Options

Data Analyst, Marketing Analyst

Course Distribution

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

Additional Information

None

4. Minor Program: Digital Ecosystem

Introduction

To face challenges in the era of technological disruption and the wave of the 4.0 industrial revolutions, this minor program offers foundational knowledge about the digital ecosystem in the 4.0 industrial revolutions. Through this minor program, students will be able to develop fundamental knowledge about main pillars of the digital ecosystem, such as informatics, business, and creative design. Students will also be able to combine the knowledge they gain from their respective majors with information technology to develop real solutions for society.

Career Options

Chief technology officer, digital business strategy expert/consultant, digital solution architect, digital business strategy manager, digital operations manager.

Course Distribution

Fundamental Courses

Course		SCU
COMP6683001	Introduction to Artificial Intelligence	2/2

ISYS6549003	Digital Innovation	4
COMP6937001	Current Trends in Technology	2
	Total SCU	10

Additional Information

None

5. Minor Program: Event Business And Entertainment

Introduction

This minor program provides practical and managerial skills, as well as knowledge of business in MICE (Meeting, Incentive, Convention, Exhibition) event, sport event, and festival, enabling students to plan and conduct a successful event.

Career Options

Professional event organizer, Professional Conference Organizer, Even Coordinator, Convention Services Supervisor, Venue Supervisor, Entertainment Supervisor, Event Promotor, Events Planner, Sporting Event Organizer, Catering Coordinator.

Course Distribution

Fundamental Courses

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

Additional Information

None

6. Minor Program: Interactive & Users Experience Design

Introduction

In today's digital era, people are competing to produce the best digital products that suit the users' needs. How can we make this happen? Minor Interactive & User Experience (UX) Design is the answer. In this Minor program, students will learn about the basics of UX starting from finding, designing, and building a digital product that is in accordance with a good UX concept to ensure that the digital products produced have adopted the UX theory. In this minor program, students will study UX from 3 (three) main pillars of UX, namely Information Systems, Psychology, and Design through 6 (six) subjects that can be selected.

Career Options

UX Researcher, UX Designer, Usability Analyst, Information Architect, Interaction Designer, Visual Designer, Content Strategies.

Course Distribution

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

Additional Information

None

7. Minor Program: Robotic Process Automation

Introduction

The Robotic Process Automation minor program provides an understanding of the concept of Robotic Process Automation (RPA) in automating repetitive processes, as well as providing an understanding of how the RPA development process involving the concept of Artificial Intelligence.

Career Options

RPA Developer, RPA Architect, RPA Business Analyst, System Analyst, Corporate Information Systems Designer, Technopreuneur, IS Project Manager, IT/IS Consultant.

Course Distribution

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

Additional Information

None

8. Minor Program: Sustainable Development

Introduction

The minor program on the topic of Sustainable Development prepares students from other disciplines for careers in engineering-related fields. Students will receive enrichment in the fields of Architecture, Industrial Engineering, Civil Engineering, Computer Engineering, and Food Technology. Students also gain knowledge of the development and application of the latest technology in the engineering field, which supports sustainable development and the industrial revolution 4.0.

Career Options

Construction Manager; Property Manager; Building Manager; Civil Engineer; Project Manager; Pre Sales and Marketing Engineer, Product Specialist, Product Development, Business Development.

Course Distribution

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

Additional Information

None

9. Minor Program: Digital Transformation

Introduction

Digital Transformation provides knowledge on how information technology can be a competitive advantage in business processes. In this minor program, students will learn about innovation in business processes, data management, and strategies that can support companies to become leaders in the digital era.

Career Options

Business Analyst, System Analyst, Corporate Information Systems Designer, Database Administrator, Database Designer, Technopreuneur, IS Project Manager, IT/IS Consultant and Auditor, Social Media professional, and Marketing Analyst

Course Distribution

Fundamental Courses

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

Additional Information

None

10. Minor Program: Culinary

Introduction

The Culinary Minor Program provides learning that focuses on Culinary, Pastry & Bakery field. The curriculum design is more of practicums, which aim to make students have the competencies required in the fields of Food Production, Pastry & Bakery and Authentic Indonesian Cuisine.

Career Options

Entrepreneur in the field of Culinary (Resto, Café, Catering Business), Chef, Restaurant Owner/Manager.

Course Distribution

Fundamental Courses

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

Additional Information

None

11. Minor Program: Virtual Service Experience

Introduction

This minor program explores the concept and implementation of virtual services in the fields of Financial Technology, Marketing, Supply chain, Market Place and Hospitality Management.

Career Options

FinTech Expert in Banking/Trading, Social media Expert for Marketing, Expert in Services for Hospitality Management, Suply Chain, Shipment, Market Place, Business process Expert in procurement and E-Commerce.

Course Distribution

Fundamental Courses

Course		SCU
ISYS6561003	Fundamental of Virtual Services	2
ACCT6350020	Virtual Financial Services	4
MGMT6354005	Virtual Operation and Supply Chain	4
	Total SCU	**10**

Additional Information

None

12. Minor Program: Content Creation

Introduction

You've probably heard it by now: Content is king. But why? Those days Consumers are going online, marketing has gone digital, and content creation is more important now than ever. Content creation encapsulates copywriting, design, production and other media that provide value and connect you to your target audience. Matching search intent and providing value (to the consumer and brand) is the foundation of successful content creation. Content creators produce work on a variety of platforms including social media, blogs, podcasts, video platforms, case studies, white papers, infographics and more. As consumer behavior shifts from traditional to digital ways, brands

today need content creators to attract consumers' attention through creative and not monotonous marketing content.

Career Options

Content Creator, Influencer, Social media Specialist.

Course Distribution

Fundamental Courses

Course		SCU
FILM6105009	Filmmaking Fundamental	4
MKTG6336055	Content Marketing Analytics	4
DSIN6042053	Photography for Creators	2
	Total SCU	**10**

Additional Information

None

13. Minor Program: Metaverse In Business

Introduction

The objective of the Metaverse in Business minor program in general is to offer a new learning experience in business innovation in the digital world. After completing the Metaverse in Business minor program, students will be able to design Virtual Reality applications so that they are able to present users in a virtual world, as if they are in another place, and develop Augmented Reality applications to present virtual effects in the real world.

Career Options

AR/VR Designer, AR/VR Developer, AR/VR Engineer, AR/VR Researcher

Course Distribution

Fundamental Courses

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

Additional Information

None

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

Students will receive information about free Electives during the registration period.

Enrichment Track Scheme

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.*

Track	Semester 6							Semester 7						
	IN	RS	EN	CD	SA	IS	etc	IN	RS	EN	CD	SA	IS	FS
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		v					
14					v		v		v					
15						v	v		v					
16	v						v					v		
17		v										v		
18				v								v		
19					v							v		
20						v						v		
21	v												v	
22		v											v	
23				v									v	
24					v								v	
25			v							v				

Note:

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

Description:

1. Student 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 who failed in **Certified Study Aboard** track will retake the course form home campus.

Certified Internship Track

Code	Course Name	SCU	Total
Enrichment Program I			20
ISYE6278054	Industrial Practice I	8	
ISYE6279054	Engineering Ethics and Competence I	8	
ISYE6280054	EES in Industrial Engineering I	4	
Enrichment Program II			20
ISYE6281054	Industrial Practice II	8	
ISYE6282054	Engineering Ethics and Competence II	8	
ISYE6283054	EES in Industrial Engineering II	4	

Certified Research Track

Code	Course Name	SCU	Total
Enrichment Program I			20
RSCH6648054	Research Experience	8	
RSCH6649054	Scientific Writing in Industrial Engineering	8	
RSCH6650054	Global EES in Industrial Engineering	4	
Enrichment Program II			
RSCH6750054	Research Experience II	8	**20**
RSCH6751054	Scientific Writing in Industrial Engineering II	8	
RSCH6752054	Global EES in Industrial Engineering II	4	

Certified Community Development Track

Code	Course Name	SCU	Total
Enrichment Program I			20
CMDV6419054	Community Outreach Project Implementation	8	
CMDV6420054	Design Project	8	
CMDV6421054	Employability and Entrepreneurial Skills inIndustrial Engineering	4	

Certified Study Abroad Track

Code	Course Name	SCU	Total
Elective courses list for study abroad*			
Enrichment Program I			
GLOB6455054	Elective Course for Study Abroad 1		4
GLOB6456054	Elective Course for Study Abroad 2		4
GLOB6457054	Elective Course for Study Abroad 3		4
GLOB6458054	Elective Course for Study Abroad 4		4
GLOB6459054	Elective Course for Study Abroad 5		4
GLOB6460054	Elective Course for Study Abroad 6		2
GLOB6461054	Elective Course for Study Abroad 7		2
GLOB6462054	Elective Course for Study Abroad 8		2
GLOB6463054	Elective Course for Study Abroad 9		2

Code	Course Name	SCU	Total
GLOB6464054	Elective Course for Study Abroad 10		2
GLOB6465054	Elective Course for Study Abroad 11		2
GLOB6466054	Elective Course for Study Abroad 12		2
GLOB6467054	Elective Course for Study Abroad 13		2
GLOB6487054	Elective Course for Study Abroad 27		2
GLOB6481054	Elective Course for Study Abroad 28		2
GLOB6482054	Elective Course for Study Abroad 29		2
Enrichment Program II			
GLOB6468054	Elective Course for Study Abroad 14		4
GLOB6469054	Elective Course for Study Abroad 15		4
GLOB6470054	Elective Course for Study Abroad 16		4
GLOB6471054	Elective Course for Study Abroad 17		4
GLOB6472054	Elective Course for Study Abroad 18		4
GLOB6473054	Elective Course for Study Abroad 19		2
GLOB6474054	Elective Course for Study Abroad 20		2
GLOB6475054	Elective Course for Study Abroad 21		2
GLOB6476054	Elective Course for Study Abroad 22		2
GLOB6477054	Elective Course for Study Abroad 23		2
GLOB6478054	Elective Course for Study Abroad 24		2
GLOB6479054	Elective Course for Study Abroad 25		2
GLOB6483054	Elective Course for Study Abroad 26		2
GLOB6484054	Elective Course for Study Abroad 30		

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

Certified Specific Independent Study Track

Code	Course Name	SCU	Total
Elective courses list for certified specific independent study*			20
CSIS6061054	Course Certification	3	
CSIS6062054	Technical Skill Enrichment	4	
CSIS6063054	Industrial Project	9	
CSIS6064054	Soft Skill Enrichment	4	
CSIS6065054	Elective Course for Specific Independent Study 1	8	
CSIS6066054	Elective Course for Specific Independent Study 2	8	
CSIS6067054	Elective Course for Specific Independent Study 3	6	
CSIS6068054	Elective Course for Specific Independent Study 4	6	
CSIS6069054	Elective Course for Specific Independent Study 5	6	
CSIS6070054	Elective Course for Specific Independent Study 6	5	
CSIS6071054	Elective Course for Specific Independent Study 7	5	
CSIS6072054	Elective Course for Specific Independent Study 8	5	
CSIS6073054	Elective Course for Specific Independent Study 9	5	

Code	Course Name	SCU	Total
CSIS6074054	Elective Course for Specific Independent Study 10	4	
CSIS6075054	Elective Course for Specific Independent Study 11	4	
CSIS6076054	Elective Course for Specific Independent Study 12	4	
CSIS6077054	Elective Course for Specific Independent Study 13	4	
CSIS6078054	Elective Course for Specific Independent Study 14	4	
CSIS6079054	Elective Course for Specific Independent Study 15	3	
CSIS6080054	Elective Course for Specific Independent Study 16	3	
CSIS6081054	Elective Course for Specific Independent Study 17	3	
CSIS6082054	Elective Course for Specific Independent Study 18	3	
CSIS6083054	Elective Course for Specific Independent Study 19	3	
CSIS6084054	Elective Course for Specific Independent Study 20	3	
CSIS6085054	Elective Course for Specific Independent Study 21	2	
CSIS6086054	Elective Course for Specific Independent Study 22	2	
CSIS6087054	Elective Course for Specific Independent Study 23	2	
CSIS6088054	Elective Course for Specific Independent Study 24	2	
CSIS6089054	Elective Course for Specific Independent Study 25	2	
CSIS6090054	Elective Course for Specific Independent Study 26	2	
CSIS6091054	Elective Course for Specific Independent Study 27	2	
CSIS6092054	Elective Course for Specific Independent Study 28	2	
CSIS6093054	Elective Course for Specific Independent Study 29	1	
CSIS6094054	Elective Course for Specific Independent Study 30	1	
CSIS6095054	Elective Course for Specific Independent Study 31	1	
CSIS6096054	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.*

Certified 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	Code	Course Name	Minimum Passing Grade
1	CHAR6044054	Character Building: Pancasila	B
2	ISYE6249054	Deterministic Optimization*	C
3	ISYE6251054	Human-Integrated Systems	C
4	ISYE6255054	Production and Operation Analysis	C

5	ISYE6304054	Facility Planning and Safety Engineering	C
6	ISYE6259054	Engineering Economy	C
7	ISYE6256054	Quality Engineering*	C
8	ISYE6258054	Additive & Manufacturing Process	C
9	ENPR6318054	Venture Creation	C

*) Tutorial and Multipaper