

Food Technology

Introduction

The Food Technology Study Program at Bina Nusantara University is aimed at students who are interested to learn deeply about foods and their production processes, to fulfil United Nations' Sustainable Development Goals of (1) zero hunger, and (2) good health and well-being, by understanding the design and production of foods with health benefits. The Food Technology Program concerns the application of biological, chemical, and engineering sciences to further understand and improve the quality, safety, nutritional, and economic value of food and beverages on an industrial scale.

The Study Program is designed not only to meet the market needs but also to produce creative, innovative and productive graduates who are capable of food product innovation, with a strong emphasis on engineering sciences, and providing graduates with *entrepreneurship* in food technology to meet global challenges on food security.

The Study Program links to national and multinational food industries and universities all over the world are strong, and there will be a one-year enrichment program, with five tracks namely, Study Abroad, Internship, Entrepreneurship, Research, Independent Study, Community Development and Further Study to enrich the theory obtained in the campus.

Facilities in the Study Program include well-equipped laboratories, namely Food Biotechnology, Food Processing, Science (Chemistry/Biochemistry), Sensory, Physics, Nutrition and Computer Laboratories.

Vision

A world-class Food Technology Study Program, fostering and empowering the society through digital technology for food innovation.

Mission

The missions of Food Technology Study Program are:

1. Educating BINUSIAN through holistic approach in food science and technology that meet global standard.
2. Answering food-related global issue by high quality and impactful research through digital technology for food innovation.
3. Fostering BINUSIAN as life-long learner through self-enrichment in food technology.
4. Empowering BINUSIAN to continuously improve society's quality of life through digital technology for food innovation.

Program Objectives

The objectives of the program are:

1. To produce graduates that meet global standard that competent in the core area of food science and technology (Food Chemistry, Food Microbiology, Nutrition, and Food Engineering).
2. To produce graduates who can apply knowledge, skills, and creativity to answer a food-related global issue by high quality and impactful research through digital technology for food innovation.
3. To produce professional graduates with spirit in self-enrichment and life-long learning in Food Technology.
4. To produce graduates with commitment and ability in empowering society through digital technology for food innovation.

Student Outcomes

After completing the study, graduates are:

1. Able to apply knowledge in core area of food science and technology.
2. Able to integrate their knowledge in food science and technology.
3. Able to demonstrate proficiency communication, professionalism, and leadership skills.
4. Able to apply functional food and food packaging knowledges to enhance the values in innovated food products.
5. Able to apply interdisciplinary knowledge and skills in developing alternative solutions for problem-solving.

Prospective Career of the Graduates

- Food Product or Ingredient Development Scientist
- Quality Control Supervisor in Food Industry
- Quality Assurance System Developer in Food Industry
- Food Analyst
- Regulatory affairs specialist
- Food Production Coordinator
- Food Marketer
- Food Researcher & Educator
- Food Consultant
- Food Entrepreneur

Curriculum

The Food Technology Study Program is a solid foundation of knowledge and understanding to contribute to multinational food industries. Students will be equipped with methodological and computational skills as well as practical laboratory skills such as operating equipment effectively and efficiently through direct involvement in problem-solving essentially required in research and food industries.

The curriculum of the Food Technology Study Program is specially structured to solve contemporary issues and to produce innovation in Food Technology with IT support.

Course Structure

Sem	Course		SCU	Total
1	CHAR6013015	Character Building: <i>Pancasila</i>	2	20
	FOOD6015015	Introduction to Food Technology ¹	2	
	MATH6219015	Calculus	2	
	SCIE6090015	Biology	2/1	
	SCIE6089015	Chemistry ¹	2/2	
	LANG6027015	Indonesian	2	
	FOOD6048015	General Physics	2/1	
	FOOD6087015	Scientific Communication in Food Technology ¹ (AOL) (AIE)	2	
	Foreign Language Course		0	
2	CHAR6014015	Character Building: <i>Kewarganegaraan</i>	2	20
	SCIE6021015	Organic Chemistry	2/1	
	FOOD6133015	Statistics in Food Technology (AIE)	2/1	
	FOOD6049015	Basic Food Biochemistry ^{1&2}	2/1	

Sem	Course		SCU	Total
	SCIE6026015	Basic Microbiology ^{1&2}	2/1	
	FOOD6095015	Unit Operation	2	
	COSC6011015	Foundations of Artificial Intelligence	2	
	FOOD6125015	Characteristic of Food Materials	2	
	Foreign Language Course		0	
3	CHAR6015015	Character Building: <i>Agama</i>	2	21
	FOOD6082015	Food Chemistry ^{1&2} (AOL)	2/1	
	FOOD6004015	Sensory Evaluation ¹ (AOL)	2/1	
	FOOD6126015	Food Processing Technology ² (AOL)	2/2	
	ENTR6510001	Entrepreneurship: Prototyping	2	
	FOOD6077015	Food Microbiology ^{1&2} (AOL)	2/1	
	FOOD6091015	Food Safety & Sanitation ¹ (AOL)	2	
	FOOD6134015	Food Law and Regulation ²	2	
Foreign Language Course		0		
4	ENTR6511001	Entrepreneurship: Market Validation	2	19
	FOOD6124015	Food Packaging, Labeling and Shelf-life ^{1&2}	2	
	FOOD6085015	Food Innovation & Product Development (AIE)	2	
	FOOD6056015	Food Engineering ^{1&2} (AOL)	2/2	
	FOOD6003015	Food Analysis ² (AOL)	2/2	
	FOOD6089015	Food Quality Assurance System ² (AIE)	2	
	FOOD6051015	Human Nutrition ¹ (AOL)	2/1	
Foreign Language Course		0		
5	Stream: Innovative Food Processing			20
	FOOD6128015	Food Ingredients & Additives	2	
	FOOD6129015	Advanced Food Processing & Packaging (AOL)	2/2	
	FOOD6076015	Food Fermentation Technology ¹	2	
	FOOD6073015	Current Issues in Food Technology ²	2	
	FOOD6092015	Molecular Gastronomy	2	
	FOOD6094015	Nutrition & Health	4	
	FOOD6132015	Herbs & Spices	2	
	FOOD6065015	Functional Foods & Nutraceuticals ¹ (AOL)	2	
	Minor Program		20	
Free Electives		20		
6	Enrichment Program I		20	20
7	Enrichment Program I		20	20
8	FOOD6078015	Pre-Thesis	2	6
	FOOD6079015	Thesis	4	
	FOOD6071015	Thesis	6	
Total Credits 146 SCU				

1) This course is delivered in English

2) Global Learning System Course

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

-) **AIE** - Artificial Intelligence Embedded Course

Streaming/Minor/Free Electives:

-) For 5th Semester: Students are required to choose Streaming or Minor or Free Electives. For Free Electives, students are required to choose from the list of Free Electives in Appendix.

Foreign Language Courses:

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

Appendix Foreign Language Courses

Foreign Language Courses		SCU
ENGL6253010	English for Frontrunners	0
ENGL6254010	English for Independent Users	0
ENGL6255010	English for Professionals	0
JAPN6190010	Basic Japanese Language	0
CHIN6163010	Basic Chinese Language	0

*) This course is optional for students

1. Students with Binus University English Proficiency Test score less than 437 are required to take English for Frontrunners and English for Independent Users.
2. Students with Binus University English Proficiency Test score less than 520 are required to take English for Independent Users and English for Professionals.
3. Students with Binus University English Proficiency Test score equal to or greater than 520 are required to take English for Professionals. Additionally, students may choose to take either Basic Japanese Language or Basic Chinese Language.
4. Students are required to pass the foreign language courses before they take enrichment.
5. Students can see the requirements to pass the foreign language courses at BINUSMAYA – Beelingua.

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 5
Minor @ Binus Kemanggisian	
Blockchain Technology and Business	-
Creative Digital Storytelling	√
Cross Cultural Communication	√
Data Analytics	√
Digital Banking	-
Digital Ecosystem	√
English for Business Professionals	√
Event Business and Entertainment	√
Human Capital in Digital Workplace	√
Interactive & Users Experience Design	√
Robotic Process Automation	√
Sustainable Development	√
Minor @ Binus Alam Sutera	
Digital Transformation	√
Minor @ Binus Bekasi	
Culinary	√
Korean Culture and Creativity	√
Minor @ Binus Malang	
Chinese for Career Pathways	√
English for Business Professionals	√
Digital Technopreneur	√
Minor @ Binus Bandung	
DesignPreneur	√
Minor @ Binus Semarang	
Content Creation	√
Immersive Journey to Japanese Language and Culture	√
Metaverse in Business	√

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: Creative 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

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

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
BUSS6170025 Asian Business Ethics	4
Total SCU	10

Supporting Courses

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

Additional Information

None

3. Minor Program: Data Analytics

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

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

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

Supporting Courses

Course	SCU
COMM6501019 Narrative Development	4
DSGN6834007 Visual Identity	4
COMP6685001 Cyber Security for Business	2
Total SCU	10

Additional Information

None

5. Minor Program: English for Business Professionals

Introduction

This minor focuses on students who are interested in English in the business context. Students will learn about leadership and management, as well as language innovations in marketing and advertising. There will also be discussions on business communication issues.

Career Options

Manager, Business practitioner, Entrepreneur, Professional employee.

Course Distribution

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

Additional Information

None

6. 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

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

Additional Information

None

7. Minor Program: Human Capital in Digital Workplace

Introduction

HCDW focuses on the human aspect of improving performance and developing human resources in the Industrial 4.0 era, which utilizes a significant number of digital and mobile workspaces.

Career Options

Human resource consultant, human resource manager, HR application developer (HRIS developer), HR development consultant.

Course Distribution

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

Additional Information

None

8. 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

Supporting Courses

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

Additional Information

None

9. 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, Technopreneur, 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

Supporting Courses

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

Additional Information

None

10. 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

Supporting Courses

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

Additional Information

None

11. 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, Technopreneur, 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

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

Additional Information

None

12. 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

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

Additional Information

None

13. Minor Program: Korean Culture and Creativity

Introduction

This minor program provides knowledge and experience in Korean Performance and Culture. The courses will cover pop art, culture, cuisine, film, drama, music, and language. Students who have international experience, especially in Korea, will have a wide range of employment opportunities.

Career Options

Content Creator, Performer, Creative Marketer, Event Organizer, Foodpreneur, and Advertiser working in a Korean environment.

Course Distribution

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

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

Additional Information

None

14. Minor Program: Chinese for Career Pathways

Introduction

This minor program offers a variety of courses customized to industry needs for Binus non-Chinese Literature students. With this minor program, students who do not major in Mandarin can still experience the benefits of mastering basic Mandarin, which is currently required by industries such as Hospitality, Chinese Companies, Management Banking, and Communication skills.

Career Options

Business Administration, Translation and Interpretation, International Relations and Diplomacy, Tourism and Hospitality, Marketing and Communications.

Course Distribution

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
CHIN6201026 Special Topics in Chinese Business	2
CHIN6202026 Global Strategic Marketing: Chinese Perspective	4
Total SCU	10

Additional Information

Open a maximum of 2 classes per batch per semester, with each class accommodating up to 30 students.

15. Minor Program: Digital Technopreneur

Introduction

Digital Technopreneur is a minor program that facilitates students in exploring the potentials of developing digital technology venture that combines technical competence with entrepreneurial skills, creativity, and innovative ideas to produce digital technology business models & prototypes. The minor program embraces the human-centered approach in helping students to develop innovative value propositions.

Career Options

Entrepreneur, Digital-preneur, Techno-preneur, Creative-preneur, Design-preneur.

Course Distribution

Fundamental Courses

Course	SCU
ENTR6528002 The Entrepreneurial Innovator	4
DSGN6839006 Interactive Design	4
COMM6504018 Digital Branding	2
ENPR6196002 Market Intelligence	2
COMP6687004 User Experience Design	4
DSGN6844023 Prototyping Digital Future	4
Total SCU	20

Additional Information

None

16. Minor Program: Designpreneur

Introduction

The Designpreneur Minor program give students the ability to be able to produce innovative work in the form of products or services based on creativity and design that can be utilized in running or developing a business.

Career Options

Design journalist, product designer, packaging designer, service system designer, service process analyst, creative director, sociopreneur.

Course Distribution

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

Additional Information

None

17. 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.

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

Supporting Courses

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

Additional Information

None

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

Introduction

Immersive Journey to Japanese Language and Culture Minor program is focused on the basic learning of the Japanese language (equivalent to N5 or corresponding to CEFR levels A1 to A2). This includes an understanding of Japanese characters (Hiragana, Katakana, basic Kanji) and grammar. Additionally, it encompasses the comprehension of reading and listening skills in Japanese, covering vocabulary, phrases, and simple sentences. This program also includes the development of basic writing and speaking skills in Japanese.

Upon completion of this minor, students will be prepared to read Japanese written in Hiragana, Katakana, and basic Kanji, as well as understand everyday conversations in the Japanese language. Subsequently, students will be equipped to engage in basic-level Japanese speaking and writing.

The outcomes of this minor, built upon a foundation of basic Japanese language proficiency, will benefit students who plan to study abroad in Japan, travel to Japan, or pursue interests and hobbies related to Japan.

Career Options

Working in Japan, either in Indonesia or Japan, in the following fields as Consultant, Front Office, Tour Guide, Secretary, Finance, HR, Industry Creative (Content creator, dubber, cosplayer).

Course Distribution

Fundamental Courses

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

Supporting Courses

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

Additional Information

None

19. 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

Supporting Courses

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

Additional Information

None

Appendix: Free Electives (5th Semester)

No	Course Owner Department	Course Code	Course Name	SCU	Semester
1	Tourism	TRSM6142022	Event Management	4	5
2	Tourism	TRSM6218022	Adventure Tourism Management	4	5
3	Tourism	TRSM6219022	Wildlife and Marine Tourism	2	5
4	Tourism	TRSM6220022	Rural Tourism Entrepreneurship	4	5
5	Tourism	TRSM6221022	Sport Tourism	2	5
6	Tourism	BUSS6137022	Tourism E-Business	4	5
7	Tourism	TRSM6140022	Tourism Law and Regulation	2	5
8	Tourism	MGMT6408022	Strategic Management for Tourism	2	5
9	Taxation	TAXN6053020	Regional Tax Systems	2	5
10	Statistics	STAT6157049	Data Mining and Visualization	2	5
11	Psychology	PSYC6124027	Psychology of Early Childhood Education	4	5
12	Psychology	PSYC6125027	Psychology of Special Needs Education	4	5
13	Psychology	PSYC6145027	Urban Psychology	4	5
14	Psychology	PSYC6191027	E-Learning Psychology	4	5
15	Psychology	PSYC6138027	Lifespan Development	4	5
16	Primary Teacher Education	EDUC6108030	Coding for Children	2	5
17	New Media	DSGN6743007	Digital Graphic Reproduction	4	5
18	Marketing Communication	COMM6624019	Digital Creative Content	2/2	5
19	Marketing Communication	COMM6620019	Online Publishing	2/2	5
20	Marketing Communication	COMM6533019	Creative Program Design	2/2	5
21	Marketing Communication	COMM6510019	Reportage & Interview Technique	2/2	5
22	Marketing Communication	COMM6622019	Audio Journalism	2/2	5
23	Marketing Communication	COMM6410019	Digital Broadcasting Production	2/2	5
24	Marketing Communication	COMM6630019	Crisis Communication	2	5
25	Marketing Communication	COMM6631019	Public Affair	2	5
26	Marketing Communication	COMM6633019	Corporate Sustainability	4	5
27	Marketing Communication	COMM6632019	Writing for Corporate Communication	2/2	5
28	Marketing Communication	COMM6541019	Digital Corporate Communication	2/2	5
29	Marketing Communication	COMM6634019	Environmental Issues and Brand Activism	4	5
30	Marketing Communication	COMM6635019	Integrated Marketing Communication	2	5
31	Marketing Communication	COMM6637019	Brand Activation	2/2	5
32	Marketing Communication	COMM6638019	Social Media Planning & Engagement	2/2	5
33	International Business Management	MGMT6357005	Multinational Corporation Management	4	5
34	International Business Management	BUSS6223005	Trade in Asia	2	5

No	Course Owner Department	Course Code	Course Name	SCU	Semester
35	International Business Management	BUSS6224005	Special Topics in International Business	4	5
36	Information Systems	ISYS6596003	User Experience Research and Design	4/2	5
37	Information Systems	ISYS6893003	Information Systems Analysis and Design	4/2	5
38	Industrial Engineering	ISYE6067011	Global Supply Chain	2	5
39	Industrial Engineering	ISYE6165011	Supply Chain Risk & Negotiation	2	5
40	Industrial Engineering	ISYE6115011	Transportation Modeling	2	5
41	Industrial Engineering	ISYE6167011	Decision Support System	2	5
42	Industrial Engineering	ISYE6168011	Financial Engineering	2	5
43	Industrial Engineering	ISYE6130011	Project Management	2	5
44	Industrial Engineering	ISYE6169011	Maintenance Management Systems	2	5
45	Industrial Engineering	ISYE6170011	Sustainable Engineering Systems	2	5
46	Hotel Management	MGMT6304021	Organization Behavior in Hospitality	2	5
47	Hotel Management	HTMN6145021	Revenue Management in Hospitality	2	5
48	Hotel Management	HTMN6027021	Service Management	4	5
49	Hotel Management	HTMN6146021	Food Safety Management	2	5
50	Hotel Management	HTMN6018021	Consumer Behavior in Hospitality	2	5
51	Hotel Management	HTMN6147021	Hospitality Management	4	5
52	Hotel Management	HTMN6148021	Research Methodology in Hospitality	4	5
53	Global Business Marketing	MKTG6321005	Marketing Data Analytics	4	5
54	Global Business Marketing	MKTG6322005	Sales and Customer Relationship Management	4	5
55	Global Business Marketing	MKTG6237005	Global Strategic Marketing: Asia Pacific Perspective	4	5
56	Global Business Marketing	MKTG6270005	Retail and Omni Channel	2	5
57	Global Business Marketing	MKTG6631005	Marketing Research	3/1	5
58	Global Business Marketing	MGMT6358005	Managing Business Information	2/2	5
59	Game Application and Technology	GAME6085001	Object Oriented Game Programming	2	5
60	Food Technology	FOOD6076015	Food Fermentation Technology	2	5
61	Food Technology	FOOD6073015	Current Issues in Food Technology	2	5
62	Food Technology	FOOD6092015	Molecular Gastronomy	2	5
63	Food Technology	FOOD6094015	Nutrition & Health	4	5
64	Food Technology	FOOD6132015	Herbs & Spices	2	5
65	Finance	FINC6073020	Lab Trading Simulation	2	5
66	Film	FILM6059009	Global Cinema	4	5
67	Data Science	DTSC6014001	Machine Learning	2	5
68	Cyber Security	COMP6542001	Computer Security Fundamental	2	5
69	Creative Advertising	DSGN6661007	Photography	4	5

No	Course Owner Department	Course Code	Course Name	SCU	Semester
70	Computer Science	COSC6108001	Mobile Programming	2	5
71	Computer Science	COMP6800001	Human and Computer Interaction	2/1	5
72	Computer Science	COMP6586001	Embedded Systems	2	5
73	Computer Science	COMP6590001	Geographical Information System	2/2	5
74	Business Management	MGMT6400005	Supply Chain Strategy	2	5
75	Business Management	MGMT6459005	Retail Management	4	5
76	Business Management	MGMT6460005	Retail Supply Chain Management	2	5
77	Business Management	MKTG6324005	Retail Marketing Management	2	5
78	Business Management	MGMT6461005	Category Management	2	5
79	Business Law	LAWS6110028	Cyber Law	2	5
80	Japanese Literature	JAPN6111025	Ideas and Images of Japanese Culture (Nihon Bunka Aidea to Imeeji)	4	5
81	Business Information Technology	ISYS6579003	Knowledge-Based AI: Cognitive Systems	4	5
82	Business Creation	ENPR61420005	Digital Business Transformation	4	5
83	Business Creation	ENPR6106005	Product Design & Branding	2	5
84	Business Creation	ENPR6107005	Business Communication & Strategy	4	5
85	Animation	DSGN6689007	Concept Art & Production Design	2	5
86	Animation	DSGN6690007	Animation Storytelling	2	5
87	Accounting	ACCT6116020	Social and Environmental Accounting	2	5
88	Accounting	ACCT6461020	Accounting Syariah	2	5
89	Accounting	ACCT6462020	Audit Psychology	2	5
90	Accounting	ACCT6313020	Public Sector Accounting	2	5
91	Biotechnology	BTEC6015056	Plant Biotechnology	2/2	5
92	Biotechnology	BTEC6016056	Marine Biotechnology	4	5
93	Biotechnology	BTEC6018056	Bioinformatics II	2/2	5
94	Biotechnology	BTEC6020056	Current Issue in Biotechnology	2	5
95	Biotechnology	BTEC6038056	Bio-design Process	2	5
96	Fashion	FASH6186040	Contemporary Fashion	2	5
97	Fashion	FASH6180040	Fashion Trend Forecasting	2	5
98	Chinese Literature	CHIN6157026	Chinese Business for Etiquette (Beginner)	4	5
99	Chinese Literature	CHIN6158026	Chinese Business in Daily Communication	4	5
100	Chinese Literature	CHIN6159026	Chinese Character Writing	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			

Note:

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

Description:

Student will take one of enrichment program tracks

Certified Internship Track

Code	Course Name	SCU	Total
Enrichment Program I			20
FOOD6080015	Unit Operations in Food Industry	8	
FOOD6031015	Industrial Experience	8	
FOOD6068015	Professionalism & Leadership	4	
Enrichment Program II			20
FOOD6067015	Self-Management & Work Ethics	4	
FOOD6081015	Integrated Food Processing	8	
FOOD6070015	Project Management & Organization	8	

Certified Entrepreneurship Track

Code	Course Name	SCU	Total
Enrichment Program I			20
ENTR6591015	New Food Venture Initiation	8	
ENTR6592015	Food Product Development Process	8	
ENTR6576015	Professionalism & Leadership	4	
Enrichment Program II			20
ENTR6594015	Food Product Launching	8	
ENTR6595015	Food Business Development	8	
ENTR6593015	EES in Food Business	4	

Certified Research Track

Code	Course Name	SCU	Total
Enrichment Program I			20
RSCH6227015	Research Experience	8	
RSCH6508015	Experimental Design	8	
RSCH6490015	Professionalism & Leadership	4	
Enrichment Program II			20
RSCH6182015	Global EES in Food Technology	4	
RSCH6509015	Academic Writing	8	
RSCH6492015	Research Methodology	8	

Certified Community Development Track

Code	Course Name	SCU	Total
Enrichment Program I			20
CMDV6128015	Community Outreach Project Implementation	8	
CMDV6288015	Community Outreach Project for Food Processing	8	
CMDV6398015	Professional & Leadership	4	
Enrichment Program II			20
CMDV6399015	Community Outreach Post Harvesting Project	8	
CMDV6400015	Community Outreach Food Law and Regulation	8	
CMDV6098015	Employability and Entrepreneurial Skills in Food Technology	4	

Certified Study Abroad Track

Code	Course Name	SCU	Total
Elective courses list for study abroad*			20
Enrichment Program I/II			
GLOB6005010	Elective Course for Study Abroad 1	4	
GLOB6006010	Elective Course for Study Abroad 2	4	
GLOB6007010	Elective Course for Study Abroad 3	4	
GLOB6008010	Elective Course for Study Abroad 4	4	
GLOB6009010	Elective Course for Study Abroad 5	2	
GLOB6010010	Elective Course for Study Abroad 6	2	
GLOB6011010	Elective Course for Study Abroad 7	2	
GLOB6012010	Elective Course for Study Abroad 8	2	

Code	Course Name	SCU	Total
GLOB6013010	Elective Course for Study Abroad 9	2	
GLOB6014010	Elective Course for Study Abroad 10	2	
GLOB6015010	Elective Course for Study Abroad 11	2	
GLOB6016010	Elective Course for Study Abroad 12	2	
GLOB6249010	Elective Course for Study Abroad 27	3	
GLOB6250010	Elective Course for Study Abroad 28	3	
GLOB6251010	Elective Course for Study Abroad 29	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*			20
Enrichment Program I/II			
CSIS6001010	Course Certification	3	
CSIS6002010	Technical Skill Enrichment	4	
CSIS6003010	Industrial Project	9	
CSIS6004010	Soft Skill Enrichment	4	
CSIS6005010	Elective Course for Specific Independent Study 1	8	
CSIS6006010	Elective Course for Specific Independent Study 2	8	
CSIS6007010	Elective Course for Specific Independent Study 3	6	
CSIS6008010	Elective Course for Specific Independent Study 4	6	
CSIS6009010	Elective Course for Specific Independent Study 5	6	
CSIS6010010	Elective Course for Specific Independent Study 6	5	
CSIS6011010	Elective Course for Specific Independent Study 7	5	
CSIS6012010	Elective Course for Specific Independent Study 8	5	
CSIS6013010	Elective Course for Specific Independent Study 9	5	
CSIS6014010	Elective Course for Specific Independent Study 10	4	
CSIS6015010	Elective Course for Specific Independent Study 11	4	
CSIS6016010	Elective Course for Specific Independent Study 12	4	
CSIS6017010	Elective Course for Specific Independent Study 13	4	
CSIS6018010	Elective Course for Specific Independent Study 14	4	
CSIS6019010	Elective Course for Specific Independent Study 15	3	
CSIS6020010	Elective Course for Specific Independent Study 16	3	
CSIS6021010	Elective Course for Specific Independent Study 17	3	
CSIS6022010	Elective Course for Specific Independent Study 18	3	
CSIS6023010	Elective Course for Specific Independent Study 19	3	
CSIS6024010	Elective Course for Specific Independent Study 20	3	
CSIS6025010	Elective Course for Specific Independent Study 21	2	
CSIS6026010	Elective Course for Specific Independent Study 22	2	
CSIS6027010	Elective Course for Specific Independent Study 23	2	
CSIS6028010	Elective Course for Specific Independent Study 24	2	
CSIS6029010	Elective Course for Specific Independent Study 25	2	

Code	Course Name	SCU	Total
CSIS6030010	Elective Course for Specific Independent Study 26	2	
CSIS6031010	Elective Course for Specific Independent Study 27	2	
CSIS6032010	Elective Course for Specific Independent Study 28	2	
CSIS6033010	Elective Course for Specific Independent Study 29	1	
CSIS6034010	Elective Course for Specific Independent Study 30	1	
CSIS6035010	Elective Course for Specific Independent Study 31	1	
CSIS6036010	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.

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

No	Course Code	Course Name	Minimum Grade
1	CHAR6013015	Character Building: Pancasila	B
2	FOOD6082015	Food Chemistry	C
3	FOOD6004015	Sensory Evaluation*	C
4	FOOD6056015	Food Engineering	C
5	FOOD6003015	Food Analysis*	C
6	ENTR6511001	Entrepreneurship: Market Validation	C
Stream Courses			
7	FOOD6065015	Functional Food & Nutraceuticals	C
8	FOOD6129015	Advanced Food Processing & Packaging	C

*) Tutorial