

# 1. BINUS ONLINE

## 1.1 Introduction

BINUS UNIVERSITY prepares and organizes BINUS Online to deliver an online learning method for individuals who are eager to learn and develop themselves without being tied to a particular time and place. This method is ideal for students who are currently working as professionals and self-employed worker, high school graduate students or even housewives who want to continue their studies. Learning activities have been designed to focus on student characteristics and to obtain quality results with the guidance of faculty members and experienced practitioners, making BINUS Online can accelerate student career.

### **Vision**

Becoming a world class online learning institution, Fostering and Empowering the society in Building and Serving the Nation.

### **Mission**

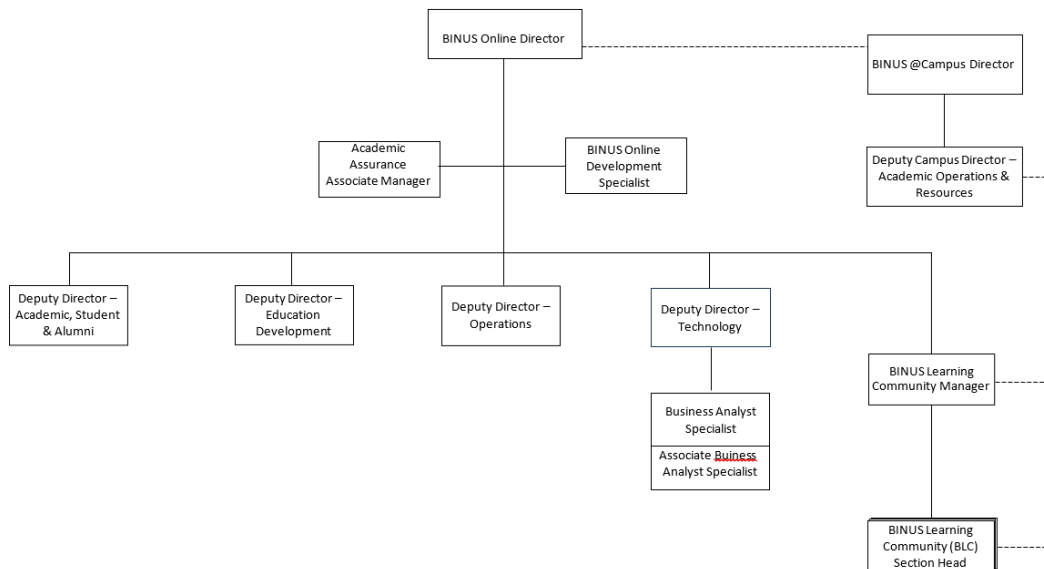
1. Educating Nusantara through holistic online education approach
2. Answering nation's issues through applied research and advanced technology development
3. Fostering BINUSIAN through self-enrichment approach
4. Empowering community continuously
5. Developing technopreneurship through multidisciplinary perspective

## 1.2 History of BINUS Online

BINUS UNIVERSITY is an information technology-based educational institution that is experienced in conducting education using information and communication technology (ICT) for students. Since 2001, BINUS UNIVERSITY has implemented a multi-channel learning system by using Learning Management System (LMS), which is built by BINUS called Binusmaya. Thousands of digital course content were created and provided to serve over 30,000 active students each semester.

With its experience and its provisions, BINUS UNIVERSITY prepares and organizes BINUS Online, learning method through <http://online.binus.ac.id> website as a medium of learning for individuals who want to learn and develop themselves without having to be tied to a specific time and place.

## 1.3 BINUS Online Organizational Structure



## 1.4 Campus Location

### Syahdan Campus

Jl. K.H. Syahdan No. 9, Kemanggisan/Palmerah, Jakarta Barat 11480

Tel: (+62-21) 534-5830, (+62-21) 535-0660

Fax: (+62-21) 530-0244

### Angrek Campus

Jl. Kebon Jeruk Raya No. 27, Kebon Jeruk, Jakarta Barat 11530

Tel: (+62-21) 53-69-69-69, (+62-21) 53-69-69-99

Fax: (+62-21) 535-0655

### Bekasi Campus

Jl. Lingkar Bulevar Blok WA No.1, Summarecon Bekasi

Kelurahan Marga Mulya, Kecamatan Medan Satria, Bekasi 17142

Tel: (+62-21) 2928-5598

Fax: (+62-21) 2928-5596

### Bandung Campus

Jl. Pasirkaliki No.25-27, Paskal Hyper Square

Bandung, Jawa Barat 40181

Telp.: (+62-22) 20568888

**Malang Campus**

Araya Mansion No. 8-22  
Pandanwangi, Blimbing Kabupaten Malang,  
Jawa Timur 65154.  
Telp.: (62-341) 3036969/ (62-341) 3036868

**BINUS Learning Community (BLC) Palembang**

Rukan Taman Harapan Indah, Jl. Letda A, Rozak No. B3 & B5, Palembang 30114  
Tel: (+62-711) 562-6222  
Fax: (+62-711) 562-6666

**Semarang Campus**

POJ Avenue Kav. 3  
Kel. Tawangsari, Kec. Semarang Barat, Kota Semarang  
BINUS EDU PARK

## 1.5 Method of Education Delivery

To support the online learning system, the courses apply a student-centered learning method. In this method, students will be encouraged to be active during the learning. Students should boost self-motivation in completing the task, discussing with lecturer, tutors, and other students. Being active in discussion forum or face to face session with the lecturer or tutor is very useful to improve the understanding and students' ability regarding the knowledge and skills learned. Learning of students are directed to learning to do and learning to be, and not merely learning to know.

Learning activities consisted of online sessions and tutorial sessions. Online sessions are conducted through Learning Management Systems (LMS), where the students and the facilitator can asynchronously interact via discussion forum. All learning materials, called online resources (i.e. lecture notes, presentation, video, assignments, quizzes), are stored in LMS so the students can access, download, and do the self-learning. In this session, the students should also complete the assignment tasks and join the quiz, which are distributed in LMS. Meanwhile, tutorial sessions are conducted to facilitate the synchronous meeting between students and tutor. It can be brought by face-to-face, either onsite or video conference meeting.

To support teaching and learning strategy, BINUS Online provides BINUS Learning Community (BLC) in Palembang, Bekasi, Semarang, and Malang. The teaching and learning strategy in online learning system is in the form of lectures, assignments (individual and group assignments), discussions, and tutorials. Then there are some subjects who also have a teaching and learning strategy in the form of presentation and practical activity.

The online learning system is focusing on learning guidance (tutorials, chat in forums, etc.) as well as independent learning. Information technology tools are used optimally to allow intensive interaction between faculty and students. Lecturers and students get internet accounts. Students can view comprehensive information about schedules, rules,

course materials, score, discuss and registering a study plan on their LMS. Electronic facilities availability are adequate and support all the activities of the students in the learning process.

## 1.6 Evaluation System

### Calculation of Final Undergraduate Score of Theory Course (NAT)

Table Calculation of Final Score of Theory Course (NAT)

Element						
Attendance	Forum Discussion	Group Assignment	Individual (Personal) Assignment	Quiz	Final Test	Total
10%	10%	15%	20%	15%	30%	100%

The Final Score for the semester is presented with the following Alphabetical Values:

Presented with the following Alphabetical Values:

Table Grading System for Undergraduate Program

Alphabetical Value	Weight	Final Score of Semester	Description
A	4	90 – 100	High Distinction
A-	3.67	85 – 89	
B+	3.33	80 – 84	
B	3	75 – 79	Distinction
B-	2.5	70 – 74	
C	2	65 – 69	Pass
D	1	50 – 64	Near Pass
E	0	0 – 49	Fail
F	0	-	Incomplete

## 1.7 Streaming

Streaming consists of in-depth and specific courses in a study program that represent the needs of industry and the latest developments or trends in related knowledge. Each streaming has its advantages/uniqueness to deepen its Major.

## 1.8 Minor Program, Free Elective, and Enrichment Program

Curriculum in BINUS Online has been designed to accommodate various learning needs of students based on their interest of specific knowledge. Minor Program, Free Elective and Enrichment Program has been delivered for students to gain new knowledge, inside or outside institution. Some of them will ask students to deepen EES (Employability and

Entrepreneurial Skill), and also practice the knowledge and skills they already have. EES (Employability and Entrepreneurial Skill) is a group of main skills as a complement to core competition (hard skills), that have been studied in their respective study programs, to prepare Bina Nusantara University graduates to work in companies/institutions/communities/institutions and entrepreneurship. Eight main skills (Soft Skills) in EES based on BINUS Graduate Attributes are Applied management skills, adaptability, initiative, social awareness, growth mindset, technology & digital fluency, collaboration, and critical & creative thinking.

### 1.8.1 Minor Program

The minor program equips students with multidisciplinary knowledge and skills. Each Minor has its own outcomes related to the uniqueness of each program. The minor program can be chosen by all BINUSIAN.

#### Minor Scheme

Minor Program	Semester 6	
	1 <sup>st</sup> Period	2 <sup>nd</sup> Period
<b>Minor @ Binus Online</b>		
Technopreneurship	v	v
Business Sustainability with Artificial Intelligence	v	v

### 1.8.2 Free electives

Free electives facilitate students to take any courses from the existing fields of studies based on individual preferences. Free electives are personalized based on student choices. Free Electives have student outcomes related to interdisciplinary knowledge and skills. This free elective track is expected to enable the students to choose the needed knowledge and skills according to their interests for increasing their competitiveness in the world of work and the world of entrepreneurship.

### 1.8.3 Certified Internship Track

Internship Track is one of the Track options from the Enrichment Program offered by BINUS Online to the students at the SMA-S1 level. Through this Internship Track, students can do internships in companies for 1 (one) semester equivalent to 20 credits. One semester consists of two periods, where each period consists of two courses related to the Internship Program. Students can choose a company to be an internship place. The list of Internship Track courses can be seen in each department.

### 1.8.4 Certified Entrepreneurship Track

BINUS Online also offers an Entrepreneurship Track as an option from the Enrichment Program for Students at the SMA-S1 level. Through the Entrepreneurship track, students can start building a business or continue developing a business they already have under the guidance of the BINUS Incubator Team. The implementation of this track for 1

(one) semester is equivalent to 20 credits. Each period consists of two courses related to the Entrepreneurship Track. If students fail in this Internship Track, then students can repeat in the next semester with the same Track or a different Track. The list of Entrepreneurship Track courses can be seen in each department.

### **1.8.5 Certified Study Abroad Track**

It is a program that allows students to study at foreign universities for 1 (one) semester, with a credit transfer scheme implemented at BINUS University partners. This program offers students to gain intercultural experience, to enrich soft skills in attitude and communication. Value proposition of this program is to prepare students with a wealth of international experience.

### **1.8.6 Certified Specific Independent Study Track**

Certified Specific Study Independent is a competency-based debriefing process that allows students to study certain fields outside of their majors. Through the Specific Study Independent track, students will learn from industry practitioners which allows opportunities to learn and develop competencies related to new and trending skills.

### **1.8.7 Certified Community Development Track**

It is a program carried out by lecturers, staff, and students to achieve the 5th mission of Bina Nusantara University, which is to improve the quality of life for the Indonesian people and the international community. There are 2 (two) types of activities, namely: Voluntary Services and Community Development (including system development). Value Proposition: Preparing students to have competence in the social field.

### **1.8.8 Certified Research Track**

It is a collaborative research program between lecturers and students where students are directly involved in research activities that hone students' abilities in scientific writing. Value Proposition: Preparing students to have good analytical skills. In this research activity, students act as members of the research team.

### **1.8.9 Certified Individual Development Project Track**

Is a program that facilitates students who are already working to create a project that can be done in the company where they work.

### **1.8.10 Further Study Track**

This track enables students who meet the specified criteria, such as  $GPA \geq 3$  and no retaken courses, to directly continue their master's degree at BINUS University. Through this track, students can complete their undergraduate and graduate programs in only 10 semesters (5 years).

## 1.9 Thesis

To finish the Undergraduate program at BINUS Online, the student must be capable of writing and presenting the thesis to the examiner.

The compilation of the thesis must be relevant to the rules of the department. The student will be guided by a supervisor that is appointed by the head of the department or study program.

## 1.10 Academic Title

Students have rights to carry the academic title from BINUS Online if he/she has fulfilled the requirements to attend graduation. The title given is adapted to the rule of the government.

Table of Academic Title

Programs	Study Level	Academic Title
Computer Science	S1	Sarjana Komputer (S.Kom.)
Information System	S1	Sarjana Komputer (S.Kom.)
Business Management	S1	Sarjana Manajemen (S.M.)
Accounting	S1	Sarjana Akuntansi (S.AK)
Industrial Engineering	S1	Sarjana Teknik (S.T.)
Data Science	S1	Sarjana Komputer (S.Kom.)
Business Analytics	S1	Sarjana Komputer (S.Kom.)
Digital Business Management	S1	Sarjana Manajemen (S.M.)
Finance	S1	Sarjana Akuntansi (S.AK)

## 1.11 Programs

### 1.11.1 Accounting

#### Introduction

Accounting Study Program Binus Online is intended for students who plan to improve their careers and work as Professional Accountants who have a strong basic knowledge of accounting, including finance, auditing, taxation, and skills in business, data analysis, and information technology. The curriculum of the Accounting Study Program Binus Online refers to accounting trends and is in line with industry needs. The Accounting Study Program Binus Online also has good collaboration with national and international companies and accounting professional associations. Students not only learn technical skills in the accounting discipline but also receive the development of soft skills needed by professionals, such as problem-solving, time management, team building, communication, and leadership. Thus, preparing leaders and professionals who think critically and innovate according to business needs.

#### Vision

To become a leading undergraduate Accounting Distance Learning Study Program that produces professional accountants with business skill, data science analysis, and applied information technology (IT) expertise with a continuing commitment to fostering and empowering communities.

### **Mission**

The mission of Accounting Study Program is to contribute to the global community through the provision of world-class education by:

1. Educating binusian from the basic skills accounting knowledge toward to analysis data science (financial and non-financial), business practices and applied information technology to prepare graduates to become professional accountants in a variety of industries and prepare them to pursue advanced degrees in accounting, finance, or related disciplines.
2. Guiding binusian through impactful and internationally recognized research in accounting to solve problems in communities.
3. Fostering Binusian through independent and sustainable enrichment.
4. Empowering the community by Binusians through community service activities.
5. Consistently applying the new Accounting Science that is aligned with the industry needs in multidiscipline view

### **Program Objective**

The objectives of the program are:

1. Preparing accounting students have professional skill, high integrity, caring the society interests, have a global orientation and responsive to scientific and technological advances required by industry
2. Preparing accounting students with strong technical skills in creating and analyzing data science (financial and non-financial) in order to fulfill accounting information
3. Preparing accounting students with skilled organizational, communication and business knowledge to succeed in accounting careers

### **Student Outcomes**

After completing the study, graduates are:

1. Able to interpret the entity's financial statements by applying accounting principles to transactions in accordance with the IFRS converged Financial Accounting Standards and the prevailing ETAP financial accounting standards
2. Able to analyze performance reporting according to accounting principles as the basis for planning, controlling and decision-making by entity management to increase the effectiveness of organizational performance
3. Able to carry out the audit process and use of accounting information systems for auditing financial statements according to Generally Accepted Auditing Standards (GAAS) and International Standards on Auditing (ISA)
4. Able to apply tax obligations for the Monthly Taxes and Annual Taxes in accordance with the tax regulations in Indonesia
5. Able to perform various types of audits such as financial statement audits and management audits in accordance with applicable standards to detect potential fraud so as to provide recommendations or opinions on audit findings
6. Able to recommend solutions to clients related to taxation issues in accordance with tax legislation
7. Able to solve problems through the multidisciplinary approach

### Prospective Career of the Graduates

With the above-mentioned skills and knowledge, the Accounting graduate is able to follow a career in:

1. Management Accountant
2. External Auditor
3. Internal Auditor
4. Financial Controller
5. Information System Auditor
6. Forensic Auditor
7. Financial Analyst
8. Financial Planner
9. Business & System Analyst
10. Tax Consultant
11. Tax Analyst

### Curriculum

The curriculum has been developed to provide an education with high quality standards. It is based on the development of the sciences and practices related to government regulation, economics, information technology, National and International Accounting Association.

### Course Structure

Sem	Code	Course Name	SCU	Total
1	CHAR6019039	Character Building: Pancasila	2	20
	MGMT6413039	Introduction to Business and Economics	4	
	ACCT6530039	Introduction to Accounting	4/2	
	ACCT6130039	Cost Accounting	4	
	ACCT6516039	Accounting Information System	4	
2	TAXN6032039	Taxation	4	20
	ACCT6131039	Managerial Accounting	4	
	ACCT6429039	Financial Accounting I	4	
	ACCT6531039	Audit and Assurance	4/2	
	COSC6012039	Foundations of Artificial Intelligence	2	
3	CHAR6020039	Character Building: Kewarganegaraan	2	20
	FINC6205039	Financial Management	4	
	ACCT6522039	Financial Statement Analysis	4	
	ACCT6430039	Financial Accounting II	4	
	ENGL6163039	English Professional	4	
	LANG6031039	Indonesian	2	
4	CHAR6021039	Character Building: Agama	2	20
	ACCT6381039	Advanced Accounting	4	
	ACCT6517039	Data Analytics and Visualization for Business	2/2	
	ACCT6514039	ERP Financial Accounting & Controlling	2/2	
	ACCT6193039	Research Methodology in Accounting and Finance	4	

Sem	Code	Course Name	SCU	Total
	ENPR6253039	Entrepreneurship	2	
5	<b>Stream: Auditing</b>			20
	ACCT6435039	Information System Auditing	4	
	ACCT6436039	Internal Audit	4	
	ACCT6338039	Risk and Internal Control	4	
	ACCT6438039	Management Audit	4	
	ACCT6439039	Forensic Accounting and Fraud Examination	4	
	<b>Stream: Corporate Taxation</b>			
	TAXN6069039	Taxation Accounting	4	
	TAXN6072039	Taxation Laboratory	2/2	
	TAXN6028039	International Taxation	4	
	TAXN6041039	Tax Management and Strategy	4	
	TAXN6071039	Tax Audit, Tax Dispute and Tax Court	4	
6	<b>Minor Program</b>			20
	<b>Free Electives</b>			
	<b>Enrichment Program I</b>			
7	<b>Free Electives</b>			20
	<b>Enrichment Program II</b>			
8	ACCT6494039	Pre Thesis	0	6
	ACCT6180039	Thesis	0	
	ACCT6187039	Thesis	6	
	ACCT6491039	Pre Thesis	2	
	ACCT6492039	Thesis	4	
<b>Total Credit 146 SCU</b>				

\*Semester 6: Students are required to choose Minor Program or Free Electives or Enrichment Program. See appendix for the details

\*Semester 7: Students are required to choose Free Electives or one of enrichment program tracks.

\*Pre thesis (0 SCU) can be taken in the first period of the 6<sup>th</sup> semester, meanwhile pre thesis (2 SCU) can be taken in the second period of the 6<sup>th</sup> semester by the students who meet the requirements from the Study Program/Program. Then, thesis (0 SCU) can be taken in the first period of the 7<sup>th</sup> semester, meanwhile thesis (4 SCU) can be taken in the second period of the 7<sup>th</sup> semester by the students who meet the requirements from the Study Program/Program.

### Appendix: Minor Program Minor Scheme

Minor Program	Semester 6	
	1 <sup>st</sup> Period	2 <sup>nd</sup> Period
<b>Minor @ Binus Online Learning</b>		
Technopreneurship	v	v
Artificial Intelligence in Business	v	v

#### 1. Minor Program: Technopreneurship

<b>Code</b>	<b>Course Name</b>	<b>SCU</b>
ACCT6384039	Accounting for Small Medium Enterprise	4
MKTG6296038	Digital Marketing for Manager	4
ISYS6619035	UX for Digital Business	4
COMP6725036	Big Data Technologies	4
ISYE6196037	Industrial Feasibility Analysis	4
<b>Total SCU</b>		<b>20</b>

**2. Minor Program: Artificial Intelligence in Business**

<b>Code</b>	<b>Course Name</b>	<b>SCU</b>
ISYS6776035	Managerial Support Systems	4
ACCT6473039	Artificial Intelligence for Audit, Forensic Accounting, and Valuation	4
COMP6936036	Machine Learning	4
MGMT6483038	AI Marketing and Predicting Consumer Experiences	4
ISYE6284037	Cognitive Ergonomics	4
<b>Total SCU</b>		<b>20</b>

**Appendix: Free Electives****Free Elective**

For students who take free electives track in the 6<sup>th</sup> semester, the following is a list of courses that students can take for 20 credits.

No	Study Program	Course Code	Course	SCU	Semester
1	Management PJJ	MGMT6448038	Operations Management	4	6
2	Management PJJ	MKTG6117038	Entrepreneurial Marketing	4	6
3	Management PJJ	COMM6092038	Business Communication	4	6
4	Management PJJ	MGMT6551038	Ethics and Leadership in Digital Business	4	6
5	Computer Science PJJ	COSC6023036	Artificial Intelligence	2/2	6
6	Industrial Engineering PJJ	ISYE6285037	Financial Engineering	4	6
7	Industrial Engineering PJJ	ISYE6098037	Supply Chain Risk & Negotiation	4	6
8	Accounting PJJ	ACCT6482039	Sustainability Reporting and Assurance	4	6
9	Accounting PJJ	ACCT6525039	Strategic Management Accounting	4	6
10	Accounting PJJ	ACCT6526039	Financial Innovation and Blockchain	4	6
11	Business Law	LAWS6197028	Legal Aspect in Business	4	6
12	Information Systems PJJ	ISYS6701035	User Experience Research and Design	4	6
13	Information Systems PJJ	ISYS6879035	Information Systems Management, Planning and Innovation	4	6
14	Information Systems PJJ	ISYS6878035	Data Modelling and Analytics	4	6
15	Information Systems PJJ	ISYS6877035	IT Governance and Security	4	6
16	Information Systems PJJ	ISYS6599035	Management Information Systems for Leader	4	6
17	Information Systems PJJ	ISYS6321035	Technology & Infrastructure of e-Business	4	6

For students who take free electives track in the 7<sup>th</sup> semester, the following is a list of courses that students can take for 20 credits.

No	Study Program	Course Code	Course	SCU	Semester
1	Management PJJ	ENPR6300038	Managing Entrepreneurial Organization and Leadership	4/2	7
2	Management PJJ	MGMT6562038	E-Corporate Strategy and Management	4/2	7
3	Management PJJ	MGMT6563038	E-Marketing and E-CRM	4/2	7
4	Management PJJ	MGMT6162038	Change Management	4	7
5	Management PJJ	BUSS6049038	Managing Innovation	4	7
6	Management PJJ	MGMT6553038	Digital Retail and Merchandising	4	7
7	Management PJJ	MGMT6554038	Digital Economy	4	7
8	Computer Science PJJ	COMP6941036	Data Mining for Business Analytics	4/2	7
9	Industrial Engineering PJJ	ISYE6287037	Industry 4.0 and Implementation	4	7

No	Study Program	Course Code	Course	SCU	Semester
10	Accounting PJJ	ACCT6532039	International Accounting	4/2	7
11	Accounting PJJ	ACCT6527039	Asset and Liability Management	4/2	7
12	Accounting PJJ	ACCT6336039	Accounting Theory	4	7
13	Accounting PJJ	ACCT6437039	Public Sector Accounting	4	7
14	Information Systems PJJ	ISYS6941035	Social Informatics	4/2	7
15	Information Systems PJJ	ISYS6942035	Information System Security	4/2	7

## Appendix: Enrichment

### Enrichment Track Scheme

Track scheme for semester 6 and 7. Student will take one of the tracks:

Enrichment Program Track									
Track	Semester 6	Semester 7							
	IS	IN	EN	RS	CD	SA	IS	FS	IDP
1	v	v							
2	v		v						
3	v			v					
4	v				v				
5	v					v			
6	v						v		
7	v								v

Students in semester 6 who take minor program or free electives, in semester 7 can take the enrichment track as follows:

Track	Enrichment Program Track							
	Semester 7							
	IN	EN	RS	CD	SA	IS	FS	IDP
1	v							
2		v						
3			v					
4				v				
5					v			
6						v		
7							v*	
8								v

\*) Regarding the implementation of the Further Study enrichment track as illustrated on the table above, if students wish to choose the Further Study track in semester 7, then their choice in semester 6 must be the Minor Program or Free Electives

**Note:**

IN : Certified Internship  
 EN : Certified Entrepreneurship  
 RS : Certified Research  
 CD : Certified Community Development  
 SA : Certified Study Abroad  
 FS : Further Study  
 IS : Certified Specific Independent Study  
 IDP : Certified Individual Development Project

**Certified Internship Track**

Code	Course Name	SCU	Total SCU
ACCT6404039	Working Experience in Accounting and Finance	6	20
ACCT6405039	Accounting and Finance in Practice	4	
ACCT6407039	Industrial Experience in Accounting and Finance	6	
ACCT6406039	Employability and Entrepreneurial Skills in Accounting and Finance Industry	4	

**Certified Entrepreneurship Track**

Code	Course Name	SCU	Total SCU
ENPR6033039	Business Start Up in Accounting and Finance	6	20
ENPR6034039	Business Model & Validation in Accounting and Finance	4	
ENPR6035039	Launching New Venture in Accounting and Finance	6	
ENPR6036039	Entrepreneurship and Managing New Business in Accounting and Finance	4	

**Certified Research Track**

Code	Course Name	SCU	Total SCU
RSCH6667039	Accounting and Finance Research Experience	6	20
RSCH6668039	Scientific Writing in Accounting and Finance Research	4	
RSCH6669039	Academic Writing for Accounting and Finance Research	6	
RSCH6670039	Global Employability and Entrepreneurial Skills in Accounting and Finance Research	4	

**Certified Community Development Track**

Code	Course Name	SCU	Total SCU
CMDV6434039	Community Development Project Implementation in Accounting and Finance	6	20
CMDV6435039	Community Development Project Design in Accounting and Finance	4	
CMDV6436039	Accounting and Finance Program Execution for Community	6	
CMDV6437039	Employability and Entrepreneurial Skills in Accounting and Finance Community	4	

**Certified Study Abroad Track**

Code	Course Name	SCU	Total SCU
GLOB6415039	Elective Course for Study Abroad 1	4	20
GLOB6416039	Elective Course for Study Abroad 2	4	
GLOB6417039	Elective Course for Study Abroad 3	3	
GLOB6418039	Elective Course for Study Abroad 4	3	
GLOB6419039	Elective Course for Study Abroad 5	3	
GLOB6420039	Elective Course for Study Abroad 6	2	
GLOB6421039	Elective Course for Study Abroad 7	2	
GLOB6422039	Elective Course for Study Abroad 8	2	
GLOB6423039	Elective Course for Study Abroad 9	1	
GLOB6424039	Elective Course for Study Abroad 10	1	
GLOB6425039	Elective Course for Study Abroad 11	4	
GLOB6426039	Elective Course for Study Abroad 12	4	
GLOB6427039	Elective Course for Study Abroad 13	3	
GLOB6428039	Elective Course for Study Abroad 14	3	
GLOB6429039	Elective Course for Study Abroad 15	3	
GLOB6430039	Elective Course for Study Abroad 16	2	
GLOB6431039	Elective Course for Study Abroad 17	2	
GLOB6432039	Elective Course for Study Abroad 18	2	
GLOB6433039	Elective Course for Study Abroad 19	1	
GLOB6434039	Elective Course for Study Abroad 20	1	

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

**Certified Specific Independent Study Track  
 Enrichment Program I**

For students who take Specific Independent Study Track in the 6<sup>th</sup> semester, they should take these courses:

Code	Course Name	SCU
CSIS6037039	Course Certification	3
CSIS6038039	Technical Skill Enrichment	4
CSIS6039039	Industrial Project	9
CSIS6040039	Soft Skill Enrichment	4
CSIS6041039	Elective Course for Specific Independent Study 1	4
CSIS6042039	Elective Course for Specific Independent Study 2	4
CSIS6043039	Elective Course for Specific Independent Study 3	3
CSIS6044039	Elective Course for Specific Independent Study 4	3
CSIS6045039	Elective Course for Specific Independent Study 5	3
CSIS6046039	Elective Course for Specific Independent Study 6	2
CSIS6047039	Elective Course for Specific Independent Study 7	2
CSIS6048039	Elective Course for Specific Independent Study 8	2
CSIS6049039	Elective Course for Specific Independent Study 9	1
CSIS6050039	Elective Course for Specific Independent Study 10	1

Code	Course Name	SCU
CSIS6051039	Elective Course for Specific Independent Study 11	4
CSIS6052039	Elective Course for Specific Independent Study 12	4
CSIS6053039	Elective Course for Specific Independent Study 13	3
CSIS6054039	Elective Course for Specific Independent Study 14	3
CSIS6055039	Elective Course for Specific Independent Study 15	3
CSIS6056039	Elective Course for Specific Independent Study 16	2
CSIS6057039	Elective Course for Specific Independent Study 17	2
CSIS6058039	Elective Course for Specific Independent Study 18	2
CSIS6059039	Elective Course for Specific Independent Study 19	1
CSIS6060039	Elective Course for Specific Independent Study 20	1
CSIS6097039	Elective Course for Specific Independent Study 21	6
CSIS6098039	Elective Course for Specific Independent Study 22	6
CSIS6099039	Elective Course for Specific Independent Study 23	6
<b>Total SCU</b>		<b>20</b>

*\*) 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 23 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.*

### Enrichment Program II

For students who take Specific Independent Study track in the 7<sup>th</sup> semester, they should take these courses:

Code	Course Name	SCU
CSIS6037039	Course Certification	3
CSIS6038039	Technical Skill Enrichment	4
CSIS6039039	Industrial Project	9
CSIS6040039	Soft Skill Enrichment	4
CSIS6100039	Elective Course for Specific Independent Study 24	4
CSIS6101039	Elective Course for Specific Independent Study 25	4
CSIS6102039	Elective Course for Specific Independent Study 26	3
CSIS6103039	Elective Course for Specific Independent Study 27	3
CSIS6104039	Elective Course for Specific Independent Study 28	3
CSIS6105039	Elective Course for Specific Independent Study 29	2
CSIS6106039	Elective Course for Specific Independent Study 30	2
CSIS6107039	Elective Course for Specific Independent Study 31	2
CSIS6108039	Elective Course for Specific Independent Study 32	1
CSIS6109039	Elective Course for Specific Independent Study 33	1
CSIS6110039	Elective Course for Specific Independent Study 34	4
CSIS6111039	Elective Course for Specific Independent Study 35	4
CSIS6112039	Elective Course for Specific Independent Study 36	3
CSIS6113039	Elective Course for Specific Independent Study 37	3
CSIS6114039	Elective Course for Specific Independent Study 38	3
CSIS6115039	Elective Course for Specific Independent Study 39	2

Code	Course Name	SCU
CSIS6116039	Elective Course for Specific Independent Study 40	2
CSIS6117039	Elective Course for Specific Independent Study 41	2
CSIS6118039	Elective Course for Specific Independent Study 42	1
CSIS6119039	Elective Course for Specific Independent Study 43	1
CSIS6120039	Elective Course for Specific Independent Study 44	6
CSIS6121039	Elective Course for Specific Independent Study 45	6
CSIS6122039	Elective Course for Specific Independent Study 46	6
<b>Total SCU</b>		<b>20</b>

\*) 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 24 to 46 are transferred courses for students who take certified specific independent study outside BINUS University. Transferred courses will be transferred based on credit transfer policies on study program with total of 20 credits.

### Further Study Track

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

### Individual Development Project Track

Code	Course Name	SCU	Total SCU
ACCT6483039	Industrial Project Planning in Accounting and Finance	6	20
ACCT6484039	Industrial Project Implementation in Accounting and Finance	4	
ACCT6485039	Industrial Project Evaluation and Reporting in Accounting and Finance	6	
ACCT6486039	Business Ethics in Accounting and Finance Industry	4	

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

No.	Course Code	Course	SCU	Minimal Grade	Semester	Period
1	CHAR6019039	Character Building: Pancasila	2	B	1	2
2	ENPR6253039	Entrepreneurship	2	C	4	2
3	ACCT6430039	Financial Accounting II	4	C	3	1
4	ACCT6131039	Managerial Accounting	4	C	2	1
5	TAXN6032039	Taxation	4	C	2	1
6	ACCT6531039	Audit and Assurance	4/2	C	2	2
<b>Stream: Auditing</b>						
7	ACCT6436039	Internal Audit	4	C	5	1
8	ACCT6439039	Forensic Accounting and Fraud Examination	4	C	5	2
<b>Stream: Corporate Taxation</b>						
7	TAXN6069039	Taxation Accounting	4	C	5	1
8	TAXN6071039	Tax Audit, Tax Dispute and Tax Court	4	C	5	2

## 1.11.2 Business Analytics

### Introduction

In this internet-of-everything era, positioning of information systems in businesses has changed from secondary needs to primary one. A good investment of technology in a business might give many positive contributions to the company in winning the competitions. Technology couldn't be successfully implemented alone by itself; its implementation should be supported along with a readiness of new business process and also people aspect of the company, which the students will learn about these in the Information Systems study program. In this study program, students will also learn how to supply the business needs with a suitable development, utilization, and investment of information systems.

### Vision

Becoming a world class online learning study program that provides a higher education in information systems area, specialized in Business-IT.

### Mission

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

1. Educating students in information systems that covers knowledge and skills in information systems development for improving business process and creating innovative information systems solutions through online learning processes that meets global standards.
2. Nurturing BINUSIAN in research activities by creating a suitable academic atmosphere.
3. Fostering BINUSIAN as lifelong learners through self-enrichment in information systems
4. Empowering communities through applied research and information systems solutions in society

### Program Objective

The objectives of the program:

1. To provide students with solid foundation of information systems development skills and knowledge as professionals in information systems specialized business analytics
2. Collaboratively to conduct high-impact research in information systems
3. To provide opportunities for lecturers and alumnae in self-development and pursuing further studies in information systems
4. To apply information systems solutions in society through community and professional services

### Student Outcomes

After completing the study, graduates are:

1. Able to identify and apply basic concepts in information system planning.
2. Able to identify needs and propose alternative solutions in the development of information systems.
3. Able to build and manage information system projects to meet organizational needs.
4. Able to integrate information system solutions effectively in an organization.
5. Able to process and integrate the results of data analysis to provide added value for decision making within the organization

6. Able to solve problems through the multidisciplinary approach.

### Prospective Career of the Graduates

With the above-mentioned skills and knowledge, the Information Systems graduate is able to follow a career in:

1. Business/System Analyst
2. System/Software Developer
3. Data Engineer
4. IS/IT Consultants
5. Project Leader
6. Business Performance Analyst
7. Data Analyst

### Curriculum

The Information Systems curriculum is designed and referred to the curriculum recommended by ACM and AIS, IS 2002 (Model curriculum and guidelines for undergraduate degree program in Information Systems), IS 2010 (Curriculum guidelines for undergraduate degree program in Information Systems), Computing Curricula 2005 and A Cooperative Project of ACM, AIS, IEEE-CS. In addition, the curriculum has been influenced by foreign universities with a reputation for quality Information Systems Study Programs.

### Course Structure

Sem	Code	Course Name	SCU	Total
1	ISYS6307035	Data and Information Management	4	20
	ISYS6935035	Enterprise Business Process	4	
	ISYS6699035	Information Systems Analysis and Design	4	
	ISYS6878035	Data Modelling and Analytics	4	
	ISYS6879035	Information Systems Management, Planning and Innovation	4	
2	CHAR6019035	Character Building: Pancasila	2	20
	ISYS6310035	Information Systems Project Management	4	
	ISYS6708035	Advanced in Data and Information Management	4	
	ISYS6877035	IT Governance and Security	4	
	ISYS6710035	Decision Support Systems	4	
	COSC6012035	Foundations of Artificial Intelligence	2	
3	CHAR6020035	Character Building: Kewarganegaraan	2	20
	ISYS6888035	Data Integration and Data Wrangling	4/2	
	COSC6047035	Introduction to Programming for Business	4	
	ISYS6332035	Data Warehouse	4	
	LANG6031035	Indonesian	2	
	ENPR6253035	Entrepreneurship	2	
4	CHAR6021035	Character Building: Agama	2	20
	ISYS6876035	Research and Project in Information Systems	4/2	
	ISYS6709035	Data Analytics	4	

	ISYS6701035	User Experience Research and Design	4	
	ISYS6889035	Predictive and Prescriptive Analytics	4	
5	ISYS6890035	Data Analysis for Business Development	4	20
	ISYS6891035	Social Analytics	4	
	ISYS6700035	Technology Infrastructure and System Implementation	4	
	ISYS6605035	Business Intelligence	4	
	ENGL6163035	English Professional	4	
6	<b>Minor Program</b>			20
	<b>Free Electives</b>			
	<b>Enrichment Program I</b>			
7	<b>Free Electives</b>			20
	<b>Enrichment Program II</b>			
8	ISYS6377035	Thesis	0	6
	ISYS6327035	Thesis	6	
<b>Total Credit 146 SCU</b>				

\*Semester 6: Students are required to choose Minor Program or Free Electives or Enrichment Program. See appendix for the details.

\*Semester 7: Students are required to choose Free Electives or Individual Development Project or one of enrichment program tracks. See appendix for the details.

\***Pre thesis (0 SCU)** can be taken in the first period of the 6<sup>th</sup> semester, meanwhile **pre thesis (2 SCU)** can be taken in the second period of the 6<sup>th</sup> semester by the students who meet the requirements from the Study Program/Program. Then, **thesis (0 SCU)** can be taken in the first period of the 7<sup>th</sup> semester, meanwhile **thesis (4 SCU)** can be taken in the second period of the 7<sup>th</sup> semester by the students who meet the requirements from the Study Program/Program.

### Appendix: Minor Program Minor Scheme

Minor Program	Semester 6	
	1 <sup>st</sup> Period	2 <sup>nd</sup> Period
<b>Minor @ Binus Online Learning</b>		
Technopreneurship	v	v
Artificial Intelligence in Business	v	v

#### Minor Program: Technopreneurship

Code	Course Name	SCU
ACCT6384039	Accounting for Small Medium Enterprise	4
MKTG6296038	Digital Marketing for Manager	4
ISYS6619035	UX for Digital Business	4
COMP6725036	Big Data Technologies	4
ISYE6196037	Industrial Feasibility Analysis	4
<b>Total SCU</b>		<b>20</b>

#### Minor Program: Artificial Intelligence in Business

Code	Course Name	SCU
ISYS6776035	Managerial Support Systems	4
ACCT6473039	Artificial Intelligence for Audit, Forensic Accounting, and Valuation	4
COMP6936036	Machine Learning	4
MGMT6483038	AI Marketing and Predicting Consumer Experiences	4
ISYE6284037	Cognitive Ergonomics	4
<b>Total SCU</b>		<b>20</b>

### Appendix: Free Electives

#### Free Elective

For students who take free electives track in the 6<sup>th</sup> semester, the following is a list of courses that students can take for 20 credits

No	Study Program	Course Code	Course	SCU	Semester
1	Management PJJ	ECON6095038	Business Economics	4	6
2	Management PJJ	MGMT6448038	Operations Management	4	6
3	Management PJJ	MKTG6117038	Entrepreneurial Marketing	4	6
4	Management PJJ	ENTR6053038	Entrepreneurial Finance	4	6
5	Management PJJ	COMM6092038	Business Communication	4	6
6	Management PJJ	MGMT6552038	Digital Logistic	4	6
7	Management PJJ	MGMT6551038	Ethics and Leadership in Digital Business	4	6
8	Computer Science PJJ	COSC6023036	Artificial Intelligence	2/2	6
9	Computer Science PJJ	COMP6721036	Mobile Programming	4	6
10	Computer Science PJJ	COMP6621036	Web Programming	4	6
11	Computer Science PJJ	COMP6617036	Cloud Computing	4	6
12	Industrial Engineering PJJ	ISYE6195037	Human Interaction in Service Systems	4	6
13	Industrial Engineering PJJ	ISYE6285037	Financial Engineering	4	6
14	Industrial Engineering PJJ	ISYE6098037	Supply Chain Risk & Negotiation	4	6
15	Accounting PJJ	FINC6221039	Financial Management	2/2	6
16	Accounting PJJ	ACCT6130039	Cost Accounting	4	6
17	Information Systems PJJ	ISYS6599035	Management Information Systems for Leader	4	6
18	Information Systems PJJ	ISYS6321035	Technology & Infrastructure of e-Business	4	6

For students who take free electives track in the 7<sup>th</sup> semester, the following is a list of courses that students can take for 20 credits.

No	Study Program	Course Code	Course	SCU	Semester
1	Management PJJ	ENPR6300038	Managing Entrepreneurial Organization and Leadership	4/2	7
2	Management PJJ	MGMT6563038	E-Marketing and E-CRM	4/2	7

No	Study Program	Course Code	Course	SCU	Semester
3	Management PJJ	MGMT6162038	Change Management	4	7
4	Management PJJ	BUSS6049038	Managing Innovation	4	7
5	Management PJJ	MGMT6553038	Digital Retail and Merchandising	4	7
6	Management PJJ	MGMT6554038	Digital Economy	4	7
7	Computer Science PJJ	COMP6277036	Geographic Information System	2/2	7
8	Computer Science PJJ	COMP6941036	Data Mining for Business Analytics	4/2	7
9	Computer Science PJJ	COMP6311036	Object Oriented Programming	4	7
10	Industrial Engineering PJJ	ISYE6287037	Industry 4.0 and Implementation	4	7
11	Industrial Engineering PJJ	ISYE6288037	Smart Manufacturing	4	7
12	Industrial Engineering PJJ	ISYE6350037	Digital Simulation and Manufacturing System	4/2	7
13	Accounting PJJ	ACCT6532039	International Accounting	4/2	7
14	Information Systems PJJ	ISYS6941035	Social Informatics	4/2	7

## Appendix: Enrichment

### Enrichment Track Scheme

Track scheme for semester 6 and 7. Student will take one of the tracks:

Enrichment Program Track									
Track	Semester 6	Semester 7							
	IS	IN	EN	RS	CD	SA	IS	FS	IDP
1	v	v							
2	v		v						
3	v			v					
4	v				v				
5	v					v			
6	v						v		
7	v								v

Students in semester 6 who take minor program or free electives, in semester 7 can take the enrichment track as follows:

Track	Enrichment Program Track							
	Semester 7							
	IN	EN	RS	CD	SA	IS	FS	IDP
1	v							

2		v						
3			v					
4				v				
5					v			
6						v		
7							v*	
8								v

*\*) Regarding the implementation of the Further Study enrichment track as illustrated on the table above, if students wish to choose the Further Study track in semester 7, then their choice in semester 6 must be the Minor Program or Free Electives*

**Note:**

- IN : Certified Internship
- EN : Certified Entrepreneurship
- RS : Certified Research
- CD : Certified Community Development
- SA : Certified Study Abroad
- FS : Further Study
- IS : Certified Specific Independent Study
- IDP : Certified Individual Development Project

**Certified Internship Track**

Code	Course Name	SCU	Total SCU
ISYS6648035	Working Experience in Information Systems	6	20
ISYS6649035	Information Systems in Practice	4	
ISYS6651035	Industrial Experience in Information Systems	6	
ISYS6650035	Employability and Entrepreneurial Skills in Information Systems Industry	4	

**Certified Entrepreneurship Track**

Code	Course Name	SCU	Total SCU
ENPR6017035	Business Start Up in Information Systems	6	20
ENPR6018035	Business Model & Validation in Information Systems	4	
ENPR6019035	Launching New Venture in Information Systems	6	
ENPR6020035	Entrepreneurship and Managing New Business in Information Systems	4	

**Certified Research Track**

Code	Course Name	SCU	Total SCU
RSCH6675035	Information Systems Research Experience	6	20
RSCH6676035	Scientific Writing in Information Systems Research	4	
RSCH6677035	Academic Writing for Information Systems Research	6	
RSCH6678035	Global Employability and Entrepreneurial Skills in Information Systems Research	4	

**Certified Community Development Track**

Code	Course Name	SCU	Total SCU
CMDV6442035	Community Development Project Implementation in Information Systems	6	20
CMDV6443035	Community Development Project Design in Information Systems	4	
CMDV6444035	Information Systems Program Execution for Community	6	
CMDV6445035	Employability and Entrepreneurial Skills in Information Systems Community	4	

**Certified Study Abroad Track**

Code	Course Name	SCU	Total SCU
GLOB6415035	Elective Course for Study Abroad 1	4	20
GLOB6416035	Elective Course for Study Abroad 2	4	
GLOB6417035	Elective Course for Study Abroad 3	3	
GLOB6418035	Elective Course for Study Abroad 4	3	
GLOB6419035	Elective Course for Study Abroad 5	3	
GLOB6420035	Elective Course for Study Abroad 6	2	
GLOB6421035	Elective Course for Study Abroad 7	2	
GLOB6422035	Elective Course for Study Abroad 8	2	
GLOB6423035	Elective Course for Study Abroad 9	1	
GLOB6424035	Elective Course for Study Abroad 10	1	
GLOB6425035	Elective Course for Study Abroad 11	4	
GLOB6426035	Elective Course for Study Abroad 12	4	
GLOB6427035	Elective Course for Study Abroad 13	3	
GLOB6428035	Elective Course for Study Abroad 14	3	
GLOB6429035	Elective Course for Study Abroad 15	3	
GLOB6430035	Elective Course for Study Abroad 16	2	
GLOB6431035	Elective Course for Study Abroad 17	2	
GLOB6432035	Elective Course for Study Abroad 18	2	
GLOB6433035	Elective Course for Study Abroad 19	1	
GLOB6434035	Elective Course for Study Abroad 20	1	

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

**Certified Specific Independent Study Track  
Enrichment Program I**

Code	Course Name	SCU
CSIS6037035	Course Certification	3
CSIS6038035	Technical Skill Enrichment	4
CSIS6039035	Industrial Project	9
CSIS6040035	Soft Skill Enrichment	4
CSIS6041035	Elective Course for Specific Independent Study 1	4
CSIS6042035	Elective Course for Specific Independent Study 2	4
CSIS6043035	Elective Course for Specific Independent Study 3	3

Code	Course Name	SCU
CSIS6044035	Elective Course for Specific Independent Study 4	3
CSIS6045035	Elective Course for Specific Independent Study 5	3
CSIS6046035	Elective Course for Specific Independent Study 6	2
CSIS6047035	Elective Course for Specific Independent Study 7	2
CSIS6048035	Elective Course for Specific Independent Study 8	2
CSIS6049035	Elective Course for Specific Independent Study 9	1
CSIS6050035	Elective Course for Specific Independent Study 10	1
CSIS6051035	Elective Course for Specific Independent Study 11	4
CSIS6052035	Elective Course for Specific Independent Study 12	4
CSIS6053035	Elective Course for Specific Independent Study 13	3
CSIS6054035	Elective Course for Specific Independent Study 14	3
CSIS6055035	Elective Course for Specific Independent Study 15	3
CSIS6056035	Elective Course for Specific Independent Study 16	2
CSIS6057035	Elective Course for Specific Independent Study 17	2
CSIS6058035	Elective Course for Specific Independent Study 18	2
CSIS6059035	Elective Course for Specific Independent Study 19	1
CSIS6060035	Elective Course for Specific Independent Study 20	1
CSIS6097035	Elective Course for Specific Independent Study 21	6
CSIS6098035	Elective Course for Specific Independent Study 22	6
CSIS6099035	Elective Course for Specific Independent Study 23	6
<b>Total SCU</b>		<b>20</b>

*\*) 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 23 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.*

### **Enrichment Program II**

For students who take Specific Independent Study track in the 7<sup>th</sup> semester, they should take these courses:

Code	Course Name	SCU
CSIS6037035	Course Certification	3
CSIS6038035	Technical Skill Enrichment	4
CSIS6039035	Industrial Project	9
CSIS6040035	Soft Skill Enrichment	4
CSIS6100035	Elective Course for Specific Independent Study 24	4
CSIS6101035	Elective Course for Specific Independent Study 25	4
CSIS6102035	Elective Course for Specific Independent Study 26	3
CSIS6103035	Elective Course for Specific Independent Study 27	3
CSIS6104035	Elective Course for Specific Independent Study 28	3
CSIS6105035	Elective Course for Specific Independent Study 29	2
CSIS6106035	Elective Course for Specific Independent Study 30	2
CSIS6107035	Elective Course for Specific Independent Study 31	2
CSIS6108035	Elective Course for Specific Independent Study 32	1
CSIS6109035	Elective Course for Specific Independent Study 33	1
CSIS6110035	Elective Course for Specific Independent Study 34	4

Code	Course Name	SCU
CSIS6111035	Elective Course for Specific Independent Study 35	4
CSIS6112035	Elective Course for Specific Independent Study 36	3
CSIS6113035	Elective Course for Specific Independent Study 37	3
CSIS6114035	Elective Course for Specific Independent Study 38	3
CSIS6115035	Elective Course for Specific Independent Study 39	2
CSIS6116035	Elective Course for Specific Independent Study 40	2
CSIS6117035	Elective Course for Specific Independent Study 41	2
CSIS6118035	Elective Course for Specific Independent Study 42	1
CSIS6119035	Elective Course for Specific Independent Study 43	1
CSIS6120035	Elective Course for Specific Independent Study 44	6
CSIS6121035	Elective Course for Specific Independent Study 45	6
CSIS6122035	Elective Course for Specific Independent Study 46	6
<b>Total SCU</b>		<b>20</b>

\*) 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 24 to 46 are transferred courses for students who take certified specific independent study outside BINUS University. Transferred courses will be transferred based on credit transfer policies on study program with total of 20 credits.

### Further Study Track

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

### Individual Development Project Track

Code	Course Name	SCU	Total SCU
ISYS6786035	Industrial Project Planning in Information Systems	6	20
ISYS6787035	Industrial Project Implementation in Information Systems	4	
ISYS6788035	Industrial Project Evaluation and Reporting in Information Systems	6	
ISYS6789035	Business Ethics in Information Systems Industry	4	

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

No.	Course Code	Course	SCU	Minimal Grade	Semester	Period
1	CHAR6019035	Character Building: Pancasila	2	B	2	1
2	ENPR6253035	Entrepreneurship	2	C	3	1
3	ISYS6307035	Data and Information Management	4	C	1	1
4	ISYS6935035	Enterprise Business Process	4	C	1	1
5	ISYS6699035	Information Systems Analysis and Design	4	C	1	2
6	ISYS6310035	Information Systems Project Management	4	C	2	1

7	ISYS6709035	Data Analytics	4	C	4	1
8	ISYS6605035	Business Intelligence	4	C	5	2

### 1.11.3 Business Management

#### Introduction

The Business Management Study Program provides students with a comprehensive understanding of the principles and practices that drive successful organizations. The Business Management Study Program prepares the next generation of business leaders to excel in a dynamic and globalized market by offering a robust curriculum that combines theoretical knowledge with practical application. Students will be equipped with the skills and insights necessary to navigate and lead in various business environments. Students will be able to effectively analyze a business entity's strategy present in the business environment.

The Business Management Study Program is designed to prepare the students to be ready to become proficient leaders who can navigate and leverage the intricacies of global and start-up businesses. The Business Management Study Program offers students a wide variety of academic career and leadership programs including collaborative projects, internships, industry partnerships, study abroad, and research activities, providing them with invaluable experience and a robust professional network, as well as applied research theses with real business management-related problems. Students will engage in guest lectures, international experience, industrial sharing sessions from various industry practitioners and professionals, involvement in student organizations, and community service. Through these experiences, students develop critical thinking, problem-solving, and leadership skills.

The Business Management Study Program prepares students for a broad range of occupations in every sector of the economy. A bachelor's degree in Business Management Study Program enables students to achieve foundation knowledge and develop their analytical skills in Digital Business Fundamentals, Digital Consumer Behaviour, Design Thinking for Product Innovations With Artificial Intelligence, Digital Business Analytics, Digital Transformation and Business Strategy, Social Media and Mobile Marketing, Digital Human Resources Management, Financial Technology, and Agile Project Management. The curriculum in the Business Management Study Program equipped students to tackle the challenges of today's complex business landscape and drive meaningful change by embedding the application of Artificial Intelligence as well as has been benchmarked to renowned universities around the world. This curriculum is then combined with the Indonesian National Curriculum and core values developed by BINUS. Students will embark on a transformative educational journey that will shape their future as business leaders.

#### Vision

To become a world-class Distance Learning Management Study Program in 2035 in international business management, entrepreneurship, and digital business with a continuous commitment to fostering and empowering communities.

#### Mission

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

1. Developing Binusian competence and expertise through Management Science, International Business, Entrepreneurship, and Digital Business with the concept of online learning and awarding excel Binusian
2. Guiding Binusian through research in Business Management Science and enrichment of technology development, which impacts business, society, and the nation
3. Fostering Binusian to continue to develop knowledge through independent and sustainable enrichment
4. Empowering the society and partner community by Binusian through creative economy development
5. Consistently applying novel Management Science aligned with human resources needs in the industry (multidisciplinary perspective)

### **Program Objective**

The objectives of the program:

1. Generating Binusian who have competence and expertise in Management Science, International Business, Entrepreneurship, and Digital Business and rewarding Binusian achievement nationally and internationally
2. Provide excellent research related to Business Management issues through a multidisciplinary approach and impactful to business, communities, and nation
3. Generating Binusian who have managerial skills from independent and continuous learning
4. The society and partner community can develop their skills and business sustainably
5. Binusian becomes a creative entrepreneur and agent of change equipped with knowledge and expertise in global business management

### **Student Outcomes**

After completing the study, graduates are:

1. Able to comprehend management and business concepts
2. Able to systematically and innovatively solve problems and overcome challenges in businesses
3. Able to perform global and sustainability mindsets in applying business concepts
4. Able to apply ethical and professional values
5. Able to design a business investment strategy in the creative industry
6. Able to formulate international business policies
7. Able to solve problems through the multidisciplinary approach

### **Prospective Career of the Graduates**

With the above-mentioned skills and knowledge, the Business Management graduate is able to follow a career in:

1. Marketing Leader/HRM Leader
2. Operational Leader/Finance Leader
3. Consultant Management
4. Researcher
5. Entrepreneur/Technopreneur

- 6. Business Intelligent
- 7. International Business Specialist

### Curriculum

The curriculum is based on the National Curriculum and Management study program association that covers management knowledge and skills as well as attitude to support core competence.

### Course Structure

Sem	Code	Course Name	SCU	Total
1	MGMT6072038	Introduction to Management and Business	4	20
	MATH6158038	Business Mathematics	2	
	MKTG6113038	Marketing Management	4	
	BUSS6252038	Business Ethics and Sustainability	4/2	
	ISYS6599038	Management Information Systems for Leader	4	
2	CHAR6019038	Character Building: Pancasila	2	20
	MGMT6157038	Human Resources Management	4	
	ECON6095038	Business Economics	4	
	MKTG6125038	Retail and Merchandising	4	
	BUSS6212038	Design Thinking in Business	4	
	COSC6012038	Foundations of Artificial Intelligence	2	
3	CHAR6020038	Character Building: Kewarganegaraan	2	20
	FINC6046038	Financial Management	4	
	MGMT6448038	Operations Management	4	
	MGMT6146038	Strategic Management	4	
	MGMT6561038	Project Management	4/2	
4	CHAR6021038	Character Building: Agama	2	20
	ACCT6363038	Accounting for Business	4	
	STAT6123038	Business Statistics and Research Methodology	4/2	
	LANG6031038	Indonesian	2	
	ENGL6163038	English Professional	4	
	ENPR6253038	Entrepreneurship	2	
5	<b>Stream: Creativepreneurship</b>			20
	ENPR6088038	Innovative Product Design & Development	4	
	ENPR6089038	Value Proposition & Business Model Design	4	
	ENPR6090038	Business Risk Analysis	4	
	ENPR6091038	Entrepreneurship in Creative Industry	4	
	MKTG6292038	Market Research and Business Plan	4	
	<b>Stream: International Business</b>			
	BUSS6216038	International Cultural, Relations and Negotiation	4	
	BUSS6217038	Export-Import Management & Documentation Standardization	4	
	MGMT6160038	Global Supply Chain Management	4	

Sem	Code	Course Name	SCU	Total
	BUSS6048038	International Business	4	
	LAWS6191038	E-Commerce & Data Privacy Law	4	
6	<b>Minor Program</b>			20
	<b>Free Electives</b>			
	<b>Enrichment Program I</b>			
7	<b>Free Electives</b>			20
	<b>Enrichment Program II</b>			
8	RSCH6691038	Pre-Thesis	0	6
	RSCH6049038	Thesis	0	
	RSCH6689038	Pre-Thesis	2	
	RSCH6690038	Thesis	4	
	RSCH6024038	Thesis	6	
<b>Total Credit 146 SCU</b>				

\*Semester 6: Students are required to choose Minor Program or Free Electives or Enrichment Program. See appendix for the details

\*Semester 7: Students are required to choose Free Electives or Individual Development Project or one of enrichment program tracks.

\***Pre thesis (0 SCU)** can be taken in the first period of the 6<sup>th</sup> semester, meanwhile **pre thesis (2 SCU)** can be taken in the second period of the 6<sup>th</sup> semester by the students who meet the requirements from the Study Program/Program. Then, **thesis (0 SCU)** can be taken in the first period of the 7<sup>th</sup> semester, meanwhile **thesis (4 SCU)** can be taken in the second period of the 7<sup>th</sup> semester by the students who meet the requirements from the Study Program/Program.

## Appendix: Minor Program

### Minor Scheme

Minor Program	Semester 6	
	1 <sup>st</sup> Period	2 <sup>nd</sup> Period
<b>Minor @ Binus Online Learning</b>		
Technopreneurship	v	v
Artificial Intelligence in Business	v	v

### Minor Program: Technopreneurship

Code	Course Name	SCU
ACCT6384039	Accounting for Small Medium Enterprise	4
MKTG6296038	Digital Marketing for Manager	4
ISYS6619035	UX for Digital Business	4
COMP6725036	Big Data Technologies	4
ISYE6196037	Industrial Feasibility Analysis	4
<b>Total SCU</b>		<b>20</b>

**Minor Program: Artificial Intelligence in Business**

Code	Course Name	SCU
ISYS6776035	Managerial Support Systems	4
ACCT6473039	Artificial Intelligence for Audit, Forensic Accounting, and Valuation	4
COMP6936036	Machine Learning	4
MGMT6483038	AI Marketing and Predicting Consumer Experiences	4
ISYE6284037	Cognitive Ergonomics	4
<b>Total SCU</b>		<b>20</b>

**Appendix: Free Electives**

**Free Elective**

For students who take free electives track in the 6<sup>th</sup> semester, the following is a list of courses that students can take for 20 credits

No	Study Program	Course Code	Course	SCU	Semester
1	Management PJJ	MKTG6117038	Entrepreneurial Marketing	4	6
2	Management PJJ	ENTR6053038	Entrepreneurial Finance	4	6
3	Management PJJ	COMM6092038	Business Communication	4	6
4	Management PJJ	MGMT6552038	Digital Logistic	4	6
5	Management PJJ	MGMT6551038	Ethics and Leadership in Digital Business	4	6
6	Computer Science PJJ	COSC6023036	Artificial Intelligence	2/2	6
7	Computer Science PJJ	COMP6621036	Web Programming	4	6
8	Computer Science PJJ	COMP6617036	Cloud Computing	4	6
9	Industrial Engineering PJJ	ISYE6195037	Human Interaction in Service Systems	4	6
10	Industrial Engineering PJJ	ISYE6098037	Supply Chain Risk & Negotiation	4	6
11	Accounting PJJ	ACCT6130039	Cost Accounting	4	6
12	Accounting PJJ	ACCT6482039	Sustainability Reporting and Assurance	4	6
13	Information Systems PJJ	ISYS6701035	User Experience Research and Design	4	6
14	Information Systems PJJ	ISYS6879035	Information Systems Management, Planning and Innovation	4	6

No	Study Program	Course Code	Course	SCU	Semester
15	Information Systems PJJ	ISYS6878035	Data Modelling and Analytics	4	6
16	Information Systems PJJ	ISYS6877035	IT Governance and Security	4	6
17	Information Systems PJJ	ISYS6321035	Technology & Infrastructure of e-Business	4	6

For students who take free electives track in the 7<sup>th</sup> semester, the following is a list of courses that students can take for 20 credits.

No	Study Program	Course Code	Course	SCU	Semester
1	Management PJJ	ENPR6300038	Managing Entrepreneurial Organization and Leadership	4/2	7
2	Management PJJ	MGMT6562038	E-Corporate Strategy and Management	4/2	7
3	Management PJJ	MGMT6563038	E-Marketing and E-CRM	4/2	7
4	Management PJJ	MGMT6162038	Change Management	4	7
5	Management PJJ	BUSS6049038	Managing Innovation	4	7
6	Management PJJ	MGMT6553038	Digital Retail and Merchandising	4	7
7	Management PJJ	MGMT6554038	Digital Economy	4	7
8	Computer Science PJJ	COMP6277036	Geographic Information System	2/2	7
9	Computer Science PJJ	COMP6941036	Data Mining for Business Analytics	4/2	7
10	Industrial Engineering PJJ	ISYE6287037	Industry 4.0 and Implementation	4	7
11	Industrial Engineering PJJ	ISYE6288037	Smart Manufacturing	4	7
12	Accounting PJJ	ACCT6532039	International Accounting	4/2	7
13	Information Systems PJJ	ISYS6941035	Social Informatics	4/2	7
14	Information Systems PJJ	ISYS6942035	Information System Security	4/2	7

## Appendix: Enrichment

### Enrichment Track Scheme

Track scheme for semester 6 and 7. Student will take one of the tracks:

Enrichment Program Track									
Track	Semester 6	Semester 7							
	IS	IN	EN	RS	CD	SA	IS	FS	IDP
1	v	v							
2	v		v						
3	v			v					
4	v				v				
5	v					v			
6	v						v		
7	v								v

Students in semester 6 who take minor program or free electives, in semester 7 can take the enrichment track as follows:

Track	Enrichment Program Track								
	Semester 7								
	IN	EN	RS	CD	SA	IS	FS	IDP	
1	v								
2		v							
3			v						
4				v					
5					v				
6						v			
7								v*	
8									v

*\*) Regarding the implementation of the Further Study enrichment track as illustrated on the table above, if students wish to choose the Further Study track in semester 7, then their choice in semester 6 must be the Minor Program or Free Electives*

**Note:**

- IN : Certified Internship
- EN : Certified Entrepreneurship
- RS : Certified Research
- CD : Certified Community Development
- SA : Certified Study Abroad
- FS : Further Study
- IS : Certified Specific Independent Study
- IDP : Certified Individual Development Project

**Certified Internship Track**

Code	Course Name	SCU	Total SCU
MGMT6429038	Working Experience in Management	6	20
MGMT6430038	Management in Practice	4	
MGMT6432038	Industrial Experience in Management	6	
MGMT6431038	Employability and Entrepreneurial Skills in Management Industry	4	

**Certified Entrepreneurship Track**

Code	Course Name	SCU	Total SCU
ENPR6025038	Business Start Up in Management	6	20
ENPR6026038	Business Model & Validation in Management	4	
ENPR6027038	Launching New Venture in Management	6	
ENPR6028038	Entrepreneurship and Managing New Business in Management	4	

**Certified Research Track**

Code	Course Name	SCU	Total SCU
RSCH6671038	Management Research Experience	6	20
RSCH6672038	Scientific Writing in Management Research	4	
RSCH6673038	Academic Writing for Management Research	6	
RSCH6674038	Global Employability and Entrepreneurial Skills in Management Research	4	

**Certified Community Development Track**

Code	Course Name	SCU	Total SCU
CMDV6438038	Community Development Project Implementation in Management	6	20
CMDV6439038	Community Development Project Design in Management	4	
CMDV6440038	Management Program Execution for Community	6	
CMDV6441038	Employability and Entrepreneurial Skills in Management Community	4	

**Certified Study Abroad Track**

Code	Course Name	SCU	Total SCU
GLOB6415038	Elective Course for Study Abroad 1	4	20
GLOB6416038	Elective Course for Study Abroad 2	4	
GLOB6417038	Elective Course for Study Abroad 3	3	
GLOB6418038	Elective Course for Study Abroad 4	3	
GLOB6419038	Elective Course for Study Abroad 5	3	

Code	Course Name	SCU	Total SCU
GLOB6420038	Elective Course for Study Abroad 6	2	
GLOB6421038	Elective Course for Study Abroad 7	2	
GLOB6422038	Elective Course for Study Abroad 8	2	
GLOB6423038	Elective Course for Study Abroad 9	1	
GLOB6424038	Elective Course for Study Abroad 10	1	
GLOB6425038	Elective Course for Study Abroad 11	4	
GLOB6426038	Elective Course for Study Abroad 12	4	
GLOB6427038	Elective Course for Study Abroad 13	3	
GLOB6428038	Elective Course for Study Abroad 14	3	
GLOB6429038	Elective Course for Study Abroad 15	3	
GLOB6430038	Elective Course for Study Abroad 16	2	
GLOB6431038	Elective Course for Study Abroad 17	2	
GLOB6432038	Elective Course for Study Abroad 18	2	
GLOB6433038	Elective Course for Study Abroad 19	1	
GLOB6434038	Elective Course for Study Abroad 20	1	

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

**Certified Specific Independent Study Track  
 Enrichment Program I**

Code	Course Name	SCU
CSIS6037038	Course Certification	3
CSIS6038038	Technical Skill Enrichment	4
CSIS6039038	Industrial Project	9
CSIS6040038	Soft Skill Enrichment	4
CSIS6041038	Elective Course for Specific Independent Study 1	4
CSIS6042038	Elective Course for Specific Independent Study 2	4
CSIS6043038	Elective Course for Specific Independent Study 3	3
CSIS6044038	Elective Course for Specific Independent Study 4	3
CSIS6045038	Elective Course for Specific Independent Study 5	3
CSIS6046038	Elective Course for Specific Independent Study 6	2
CSIS6047038	Elective Course for Specific Independent Study 7	2
CSIS6048038	Elective Course for Specific Independent Study 8	2
CSIS6049038	Elective Course for Specific Independent Study 9	1
CSIS6050038	Elective Course for Specific Independent Study 10	1
CSIS6051038	Elective Course for Specific Independent Study 11	4
CSIS6052038	Elective Course for Specific Independent Study 12	4
CSIS6053038	Elective Course for Specific Independent Study 13	3
CSIS6054038	Elective Course for Specific Independent Study 14	3
CSIS6055038	Elective Course for Specific Independent Study 15	3
CSIS6056038	Elective Course for Specific Independent Study 16	2
CSIS6057038	Elective Course for Specific Independent Study 17	2

Code	Course Name	SCU
CSIS6058038	Elective Course for Specific Independent Study 18	2
CSIS6059038	Elective Course for Specific Independent Study 19	1
CSIS6060038	Elective Course for Specific Independent Study 20	1
CSIS6097038	Elective Course for Specific Independent Study 21	6
CSIS6098038	Elective Course for Specific Independent Study 22	6
CSIS6099038	Elective Course for Specific Independent Study 23	6
<b>Total SCU</b>		<b>20</b>

*\*) 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 23 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.*

### Enrichment Program II

For students who take Specific Independent Study track in the 7<sup>th</sup> semester, they should take these courses:

Code	Course Name	SCU
CSIS6037038	Course Certification	3
CSIS6038038	Technical Skill Enrichment	4
CSIS6039038	Industrial Project	9
CSIS6040038	Soft Skill Enrichment	4
CSIS6100038	Elective Course for Specific Independent Study 24	4
CSIS6101038	Elective Course for Specific Independent Study 25	4
CSIS6102038	Elective Course for Specific Independent Study 26	3
CSIS6103038	Elective Course for Specific Independent Study 27	3
CSIS6104038	Elective Course for Specific Independent Study 28	3
CSIS6105038	Elective Course for Specific Independent Study 29	2
CSIS6106038	Elective Course for Specific Independent Study 30	2
CSIS6107038	Elective Course for Specific Independent Study 31	2
CSIS6108038	Elective Course for Specific Independent Study 32	1
CSIS6109038	Elective Course for Specific Independent Study 33	1
CSIS6110038	Elective Course for Specific Independent Study 34	4
CSIS6111038	Elective Course for Specific Independent Study 35	4
CSIS6112038	Elective Course for Specific Independent Study 36	3
CSIS6113038	Elective Course for Specific Independent Study 37	3
CSIS6114038	Elective Course for Specific Independent Study 38	3
CSIS6115038	Elective Course for Specific Independent Study 39	2
CSIS6116038	Elective Course for Specific Independent Study 40	2
CSIS6117038	Elective Course for Specific Independent Study 41	2
CSIS6118038	Elective Course for Specific Independent Study 42	1
CSIS6119038	Elective Course for Specific Independent Study 43	1
CSIS6120038	Elective Course for Specific Independent Study 44	6
CSIS6121038	Elective Course for Specific Independent Study 45	6
CSIS6122038	Elective Course for Specific Independent Study 46	6
<b>Total SCU</b>		<b>20</b>

\*) 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 24 to 46 are transferred courses for students who take certified specific independent study outside BINUS University. Transferred courses will be transferred based on credit transfer policies on study program with total of 20 credits.

### Further Study Track

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

### Certified Individual Development Project Track

Code	Course Name	SCU	Total SCU
MGMT6489038	Industrial Project Planning in Management	6	20
MGMT6490038	Industrial Project Implementation in Management	4	
MGMT6491038	Industrial Project Evaluation and Reporting in Management	6	
MGMT6492038	Business Ethics in Management Industry	4	

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

No.	Course Code	Course	SCU	Minimal Grade	Semester	Period
1	CHAR6019038	Character Building: Pancasila	2	B	2	1
2	ENPR6253038	Entrepreneurship	2	C	4	2
3	MKTG6113038	Marketing Management	4	C	1	2
4	MGMT6157038	Human Resources Management	4	C	2	1
5	MGMT6072038	Introduction to Management and Business	4	C	1	1
6	BUSS6252038	Business Ethics and Sustainability	4/2	C	1	1
<b>Stream: Creativepreneurship</b>						
7	ENPR6089038	Value Proposition & Business Model Design	4	C	5	1
8	ENPR6091038	Entrepreneurship in Creative Industry	4	C	5	2
<b>Stream: International Business</b>						
7	MGMT6160038	Global Supply Chain Management	4	C	5	1
8	BUSS6048038	International Business	4	C	5	2

## 1.11.4 Computer Science

### Introduction

The Computer Science Program teaches basic knowledge of computer science include algorithms, methods of application development and database technology with knowledge and understanding of mathematical concepts. Curriculum designed based on international curricula ACM (Association for Computing Machinery) and input from business and industry. The graduate expected from this program can compete internationally and provide creative and innovative solutions in place of work.

**Vision**

A world-class online learning study program by providing excellent educational relevant experiences and updatable to trend in computer science, fostering and empowering the society in building and serving the nation

**Mission**

The mission of Computer Science online learning program 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.
2. Preparing our graduates to develop exemplary soft skills & technical skills required as ICT professionals, leaders and entrepreneurs in the global market.
3. Promoting practical application or high impact research in computer science that contributes to the nation.
4. Fostering BINUSIAN as lifelong learners through self-enrichment in information technology.
5. Empowering BINUSIAN using current ICT technology to continuously improve society's quality of life .

**Program Objective**

The objectives of the program:

1. Graduates will become successful professionals in ICT fields by either obtaining an advanced technical or management position
2. Graduates will obtain employment in ICT global companies or become entrepreneurs
3. Graduates will continue their formal education or pursue professional international certifications

**Student Outcomes**

After completing the study, graduates are:

1. Able to apply mathematical knowledge, computer science theory to identify and solve problems critically and creatively
2. Able to apply leadership, communication, ethics and professional behavior skills in the world of work related to computer science
3. Able to develop new models, techniques, technology and software that are relevant to solving problems related to the field of computer science
4. Able to develop computing-based solutions to solve problems related to the field of computer science
5. Able to solve information technology problems using an artificial intelligence-based technological approach
6. Able to solve information technology problems using a computer network-based technology approach
7. Able to solve problems through the multidisciplinary approach.

**Prospective Career of the Graduates**

1. Application Developer
2. Software Engineer
3. Information Technology Technopreneur

- 4. Network Administrator/Specialist
- 5. AI Engineer

### Curriculum

The curriculum 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 Machineryes), local and foreign universities, and market trend. Therefore, the graduates are expected to be able to face the competition at both national and international level.

### Course Structure

Sem	Code	Course Name	SCU	Total
1	CHAR6019036	Character Building: Pancasila	2	20
	COMP6112036	Algorithm and Programming	4/2	
	COSC6041036	Calculus and Scientific Computing	4	
	COSC6026036	Software Design	4/2	
	COMP6718036	Operating System	2	
2	CHAR6020036	Character Building: Kewarganegaraan	2	20
	COSC6025036	Data Structures and Algorithm Analysis	4/2	
	COSC6042036	Computational Statistics	4/2	
	COSC6016036	Human Computer Interaction Design	4	
	LANG6031036	Indonesian	2	
3	CHAR6021036	Character Building: Agama	2	20
	COSC6040036	Discrete Mathematics and Linear Algebra	4	
	COSC6063036	Computer Networks	2	
	COSC6023036	Artificial Intelligence	2/2	
	COSC6062036	Database Technology	2	
	COSC6014036	Specialized Platform Development	4/2	
4	COSC6064036	Compilation Techniques	2	20
	COMP6305036	Computer Security	4	
	COSC6024036	Research Methodology in Computer Science	4	
	COSC6015036	Capita Selecta in Computer Science	4	
	ENPR6253036	Entrepreneurship	2	
	ENGL6163036	English Professional	4	
5	<b>Stream: Artificial Intelligences</b>			20
	COMP6724036	Internet of Things	4	
	COMP6938036	Computer Vision Application	2/2	
	COSC6017036	Generative Artificial Intelligence	2/2	
	COSC6018036	Natural Language Processing	2/2	
	COSC6019036	Artificial Intelligence Development Frameworks	4	
	<b>Stream: Computer Networks</b>			
	COSC6066036	System Administration	2/2	

Sem	Code	Course Name	SCU	Total
	COSC6021036	Network Communication	2/2	
	COSC6020036	Network Security	2/2	
	COMP6961036	Computer Infrastructure and Forensic	4	
	COSC6022036	Network Penetration Testing	2/2	
6	<b>Minor Program</b>		20	20
	<b>Free Electives</b>			
	<b>Enrichment Program I</b>			
7	<b>Free Electives</b>		20	20
	<b>Enrichment Program II</b>			
8	COMP6954036	Pre Thesis	0	6
	COMP6328036	Thesis	0	
	COMP6952036	Pre Thesis	2	
	COMP6953036	Thesis	4	
	COMP6288036	Thesis	6	
<b>Total Credit 146 SCU</b>				

\*Semester 6: Students are required to choose Minor Program or Free Electives or Enrichment Program. See appendix for the details

\*Semester 7: Students are required to choose Free Electives or Individual Development Project or one of enrichment program tracks. See appendix for the details.

\*Pre thesis (0 SCU) can be taken in the first period of the 6<sup>th</sup> semester, meanwhile pre thesis (2 SCU) can be taken in the second period of the 6<sup>th</sup> semester by the students who meet the requirements from the Study Program/Program. Then, thesis (0 SCU) can be taken in the first period of the 7<sup>th</sup> semester, meanwhile thesis (4 SCU) can be taken in the second period of the 7<sup>th</sup> semester by the students who meet the requirements from the Study Program/Program.

### Appendix: Minor Program Minor Scheme

Minor Program	Semester 6	
	1 <sup>st</sup> Period	2 <sup>nd</sup> Period
<b>Minor @ Binus Online Learning</b>		
Technopreneurship	v	v
Artificial Intelligence in Business	v	v

### Minor Program: Technopreneurship

Code	Course Name	SCU
ACCT6384039	Accounting for Small Medium Enterprise	4
MKTG6296038	Digital Marketing for Manager	4
ISYS6619035	UX for Digital Business	4
COMP6725036	Big Data Technologies	4
ISYE6196037	Industrial Feasibility Analysis	4
<b>Total SCU</b>		<b>20</b>

**Minor Program: Artificial Intelligence in Business**

Code	Course Name	SCU
ISYS6776035	Managerial Support Systems	4
ACCT6473039	Artificial Intelligence for Audit, Forensic Accounting, and Valuation	4
COMP6936036	Machine Learning	4
MGMT6483038	AI Marketing and Predicting Consumer Experiences	4
ISYE6284037	Cognitive Ergonomics	4
<b>Total SCU</b>		<b>20</b>

**Appendix: Free Electives**

**Free Elective**

For students who take free electives track in the 6<sup>th</sup> semester, the following is a list of courses that students can take for 20 credits.

No	Study Program	Course Code	Course	SCU	Semester
1	Computer Science PJJ	COMP6721036	Mobile Programming	4	6
2	Computer Science PJJ	COMP6617036	Cloud Computing	4	6
3	Management PJJ	MGMT6552038	Digital Logistic	4	6
4	Management PJJ	MGMT6551038	Ethics and Leadership in Digital Business	4	6
5	Industrial Engineering PJJ	ISYE6195037	Human Interaction in Service Systems	4	6
6	Industrial Engineering PJJ	ISYE6098037	Supply Chain Risk & Negotiation	4	6
7	Accounting PJJ	ACCT6482039	Sustainability Reporting and Assurance	4	6
8	Information Systems PJJ	ISYS6701035	User Experience Research and Design	4	6
9	Information Systems PJJ	ISYS6878035	Data Modelling and Analytics	4	6

For students who take free electives track in the 7<sup>th</sup> semester, the following is a list of courses that students can take for 20 credits.

No	Study Program	Course Code	Course	SCU	Semester
1	Management PJJ	ENPR6300038	Managing Entrepreneurial Organization and Leadership	4/2	7
2	Management PJJ	BUSS6049038	Managing Innovation	4	7
3	Computer Science PJJ	COMP6940036	Deep Learning Application	4/2	7
4	Computer Science PJJ	COMP6277036	Geographic Information System	2/2	7

No	Study Program	Course Code	Course	SCU	Semester
5	Computer Science PJJ	COMP6941036	Data Mining for Business Analytics	4/2	7
6	Computer Science PJJ	COMP6311036	Object Oriented Programming	4	7
7	Industrial Engineering PJJ	ISYE6287037	Industry 4.0 and Implementation	4	7
8	Industrial Engineering PJJ	ISYE6350037	Digital Simulation and Manufacturing System	4/2	7
9	Information Systems PJJ	ISYS6941035	Social Informatics	4/2	7
10	Information Systems PJJ	ISYS6942035	Information System Security	4/2	7

## Appendix: Enrichment

### Enrichment Track Scheme

Track scheme for semester 6 and 7. Student will take one of the tracks:

Enrichment Program Track									
Track	Semester 6	Semester 7							
	IS	IN	EN	RS	CD	SA	IS	FS	IDP
1	v	v							
2	v		v						
3	v			v					
4	v				v				
5	v					v			
6	v						v		
7	v								v

Students in semester 6 who take minor program or free electives, in semester 7 can take the enrichment track as follows:

Track	Enrichment Program Track							
	Semester 7							
	IN	EN	RS	CD	SA	IS	FS	IDP
1	v							
2		v						
3			v					
4				v				
5					v			
6						v		
7							v*	

8								v
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\*) Regarding the implementation of the Further Study enrichment track as illustrated on the table above, if students wish to choose the Further Study track in semester 7, then their choice in semester 6 must be the Minor Program or Free Electives

**Note:**

- IN : Certified Internship
- EN : Certified Entrepreneurship
- RS : Certified Research
- CD : Certified Community Development
- SA : Certified Study Abroad
- FS : Further Study
- IS : Certified Specific Independent Study
- IDP : Certified Individual Development Project

**Certified Internship Track**

Code	Course Name	SCU	Total SCU
COMP6810036	Working Experiences in Information Technology	6	20
COMP6811036	Information Technology in Practice	4	
COMP6813036	Industrial Experience in Information Technology	6	
COMP6812036	Employability and Entrepreneurial Skills in Information Technology Industry	4	

**Certified Entrepreneurship Track**

Code	Course Name	SCU	Total SCU
ENPR6009036	Business Start Up in Information Technology	6	20
ENPR6010036	Business Model & Validation in Information Technology	4	
ENPR6011036	Launching New Venture in Information Technology	6	
ENPR6012036	Entrepreneurship and Managing New Business in Information Technology	4	

**Certified Research Track**

Code	Course Name	SCU	Total SCU
RSCH6679036	Information Technology Research Experience	6	20
RSCH6680036	Scientific Writing in Information Technology Research	4	
RSCH6681036	Academic Writing for Information Technology Research	6	
RSCH6682036	Global Employability and Entrepreneurial Skills in Information Technology Research	4	

**Certified Community Development Track**

Code	Course Name	SCU	Total SCU
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CMDV6446036	Community Development Project Implementation in Information Technology	6	20
CMDV6447036	Community Development Project Design in Information Technology	4	
CMDV6448036	Information Technology Program Execution for Community	6	
CMDV6449036	Employability and Entrepreneurial Skills in Information Technology Community	4	

### Certified Study Abroad Track

Code	Course Name	SCU	Total SCU
GLOB6415036	Elective Course for Study Abroad 1	4	20
GLOB6416036	Elective Course for Study Abroad 2	4	
GLOB6417036	Elective Course for Study Abroad 3	3	
GLOB6418036	Elective Course for Study Abroad 4	3	
GLOB6419036	Elective Course for Study Abroad 5	3	
GLOB6420036	Elective Course for Study Abroad 6	2	
GLOB6421036	Elective Course for Study Abroad 7	2	
GLOB6422036	Elective Course for Study Abroad 8	2	
GLOB6423036	Elective Course for Study Abroad 9	1	
GLOB6424036	Elective Course for Study Abroad 10	1	
GLOB6425036	Elective Course for Study Abroad 11	4	
GLOB6426036	Elective Course for Study Abroad 12	4	
GLOB6427036	Elective Course for Study Abroad 13	3	
GLOB6428036	Elective Course for Study Abroad 14	3	
GLOB6429036	Elective Course for Study Abroad 15	3	
GLOB6430036	Elective Course for Study Abroad 16	2	
GLOB6431036	Elective Course for Study Abroad 17	2	
GLOB6432036	Elective Course for Study Abroad 18	2	
GLOB6433036	Elective Course for Study Abroad 19	1	
GLOB6434036	Elective Course for Study Abroad 20	1	

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

### Certified Specific Independent Study Track Enrichment Program I

Code	Course Name	SCU
CSIS6037036	Course Certification	3
CSIS6038036	Technical Skill Enrichment	4
CSIS6039036	Industrial Project	9
CSIS6040036	Soft Skill Enrichment	4

Code	Course Name	SCU
CSIS6041036	Elective Course for Specific Independent Study 1	4
CSIS6042036	Elective Course for Specific Independent Study 2	4
CSIS6043036	Elective Course for Specific Independent Study 3	3
CSIS6044036	Elective Course for Specific Independent Study 4	3
CSIS6045036	Elective Course for Specific Independent Study 5	3
CSIS6046036	Elective Course for Specific Independent Study 6	2
CSIS6047036	Elective Course for Specific Independent Study 7	2
CSIS6048036	Elective Course for Specific Independent Study 8	2
CSIS6049036	Elective Course for Specific Independent Study 9	1
CSIS6050036	Elective Course for Specific Independent Study 10	1
CSIS6051036	Elective Course for Specific Independent Study 11	4
CSIS6052036	Elective Course for Specific Independent Study 12	4
CSIS6053036	Elective Course for Specific Independent Study 13	3
CSIS6054036	Elective Course for Specific Independent Study 14	3
CSIS6055036	Elective Course for Specific Independent Study 15	3
CSIS6056036	Elective Course for Specific Independent Study 16	2
CSIS6057036	Elective Course for Specific Independent Study 17	2
CSIS6058036	Elective Course for Specific Independent Study 18	2
CSIS6059036	Elective Course for Specific Independent Study 19	1
CSIS6060036	Elective Course for Specific Independent Study 20	1
CSIS6097036	Elective Course for Specific Independent Study 21	6
CSIS6098036	Elective Course for Specific Independent Study 22	6
CSIS6099036	Elective Course for Specific Independent Study 23	6
<b>Total SCU</b>		<b>20</b>

*\*) 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 23 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.*

### Enrichment Program II

For students who take Specific Independent Study track in the 7<sup>th</sup> semester, they should take these courses:

Code	Course Name	SCU
CSIS6037036	Course Certification	3
CSIS6038036	Technical Skill Enrichment	4
CSIS6039036	Industrial Project	9
CSIS6040036	Soft Skill Enrichment	4
CSIS6100036	Elective Course for Specific Independent Study 24	4
CSIS6101036	Elective Course for Specific Independent Study 25	4
CSIS6102036	Elective Course for Specific Independent Study 26	3

Code	Course Name	SCU
CSIS6103036	Elective Course for Specific Independent Study 27	3
CSIS6104036	Elective Course for Specific Independent Study 28	3
CSIS6105036	Elective Course for Specific Independent Study 29	2
CSIS6106036	Elective Course for Specific Independent Study 30	2
CSIS6107036	Elective Course for Specific Independent Study 31	2
CSIS6108036	Elective Course for Specific Independent Study 32	1
CSIS6109036	Elective Course for Specific Independent Study 33	1
CSIS6110036	Elective Course for Specific Independent Study 34	4
CSIS6111036	Elective Course for Specific Independent Study 35	4
CSIS6112036	Elective Course for Specific Independent Study 36	3
CSIS6113036	Elective Course for Specific Independent Study 37	3
CSIS6114036	Elective Course for Specific Independent Study 38	3
CSIS6115036	Elective Course for Specific Independent Study 39	2
CSIS6116036	Elective Course for Specific Independent Study 40	2
CSIS6117036	Elective Course for Specific Independent Study 41	2
CSIS6118036	Elective Course for Specific Independent Study 42	1
CSIS6119036	Elective Course for Specific Independent Study 43	1
CSIS6120036	Elective Course for Specific Independent Study 44	6
CSIS6121036	Elective Course for Specific Independent Study 45	6
CSIS6122036	Elective Course for Specific Independent Study 46	6
<b>Total SCU</b>		<b>20</b>

*\*) 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 24 to 46 are transferred courses for students who take certified specific independent study outside BINUS University. Transferred courses will be transferred based on credit transfer policies on study program with total of 20 credits.*

### Further Study Track

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

### Certified Individual Development Project Track

Code	Course Name	SCU	Total SCU
COMP6944036	Industrial Project Planning in Information Technology	6	20
COMP6945036	Industrial Project Implementation in Information Technology	4	
COMP6946036	Industrial Project Evaluation and Reporting in Information Technology	6	
COMP6947036	Business Ethics in Information Technology Industry	4	

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

No.	Course Code	Course	Minimal Grade	Semester	Period
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1	CHAR6019036	Character Building: Pancasila	B	1	1
2	ENPR6253036	Entrepreneurship	C	4	1
3	COMP6112036	Algorithm and Programming	C	1	1
4	COSC6026036	Software Design	C	1	2
5	COSC6025036	Data Structures and Algorithm Analysis	C	2	1
6	COSC6024036	Research Methodology in Computer Science	C	4	2
<b>Stream: Artificial Intelligences</b>					
7	COMP6938036	Computer Vision Application	C	5	1
8	COSC6018036	Natural Language Processing	C	5	2
<b>Stream: Computer Networks</b>					
7	COSC6021036	Network Communication	C	5	1
8	COSC6020036	Network Security	C	5	1

## 1.11.5 Data Science

### Introduction

The Computer Science Program teaches basic knowledge of computer science include algorithms, methods of application development and database technology with knowledge and understanding of mathematical concepts. Curriculum designed based on international curricula ACM (Association for Computing Machinery) and input from business and industry. The graduate expected from this program can compete internationally and provide creative and innovative solutions in place of work.

### Vision

A world-class online learning study program by providing excellent educational relevant experiences and updatable to trend in computer science, fostering and empowering the society in building and serving the nation

### Mission

The mission of Computer Science online learning program 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.
2. Preparing our graduates to develop exemplary soft skills & technical skills required as ICT professionals, leaders and entrepreneurs in the global market.
3. Promoting practical application or high impact research in computer science that contributes to the nation.
4. Fostering BINUSIAN as lifelong learners through self-enrichment in information technology.
5. Empowering BINUSIAN using current ICT technology to continuously improve society's quality of life .

### Program Objective

The objectives of the program:

1. Graduates will become successful professionals in ICT fields by either obtaining an advanced technical or management position
2. Graduates will obtain employment in ICT global companies or become entrepreneurs
3. Graduates will continue their formal education or pursue professional international certifications

### Student Outcomes

After completing the study, graduates are:

1. Able to apply mathematical knowledge, computer science theory to identify and solve problems critically and creatively
2. Able to apply leadership, communication, ethics and professional behavior skills in the world of work related to computer science
3. Able to develop new models, techniques, technology and software that are relevant to solving problems related to the field of computer science
4. Able to develop computing-based solutions to solve problems related to the field of computer science
5. Able to implement data science project cycles to solve problems in society
6. Able to solve problems through the multidisciplinary approach.

### Prospective Career of the Graduates

1. Application Developer
2. Software Engineer
3. Information Technology Technopreneur
4. Data Scientist
5. Data Engineer
6. Data Analyst

### Curriculum

The curriculum 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 Machineryes), local and foreign universities, and market trend. Therefore, the graduates are expected to be able to face the competition at both national and international level.

### Course Structure

Sem	Code	Course Name	SCU	Total
1	CHAR6019036	Character Building: Pancasila	2	20
	COMP6112036	Algorithm and Programming	4/2	
	COSC6041036	Calculus and Scientific Computing	4	
	COSC6026036	Software Design	4/2	
	COMP6718036	Operating System	2	
2	CHAR6020036	Character Building: Kewarganegaraan	2	20
	COSC6025036	Data Structures and Algorithm Analysis	4/2	

Sem	Code	Course Name	SCU	Total
	COSC6028036	Introduction to Data Science	4	
	COSC6042036	Computational Statistics	4/2	
	LANG6031036	Indonesian	2	
3	CHAR6021036	Character Building: Agama	2	20
	COSC6063036	Computer Networks	2	
	COSC6040036	Discrete Mathematics and Linear Algebra	4	
	COSC6023036	Artificial Intelligence	2/2	
	COSC6062036	Database Technology	2	
	COSC6029036	Storytelling With Data	4/2	
4	COSC6064036	Compilation Techniques	2	20
	COSC6031036	Data Acquisition and Management	2/2	
	COSC6024036	Research Methodology in Computer Science	4	
	COSC6033036	Data Science and Digital Transformation	4	
	ENGL6163036	English Professional	4	
	ENPR6253036	Entrepreneurship	2	
5	COSC6036036	Social Media and Network Analysis	4	20
	COSC6030036	Data Analysis for Decision Making	2/2	
	COSC6034036	Cultural Data Science	4	
	COSC6035036	Spatial Data Analysis	4/2	
	COSC6032036	Data Governance, Ethics and Law	2	
6	<b>Minor Program</b>		20	20
	<b>Free Electives</b>			
	<b>Enrichment Program I</b>			
7	<b>Free Electives</b>		20	20
	<b>Enrichment Program II</b>			
8	COMP6954036	Pre Thesis	0	6
	COMP6328036	Thesis	0	
	COMP6952036	Pre Thesis	2	
	COMP6953036	Thesis	4	
	COMP6288036	Thesis	6	
<b>Total Credit 146 SCU</b>				

\*Semester 6: Students are required to choose Minor Program or Free Electives or Enrichment Program. See appendix for the details

\*Semester 7: Students are required to choose Free Electives or Individual Development Projector one of enrichment program tracks. See appendix for the details.

\*Pre thesis (0 SCU) can be taken in the first period of the 6<sup>th</sup> semester, meanwhile pre thesis (2 SCU) can be taken in the second period of the 6<sup>th</sup> semester by the students who meet the requirements from the Study Program/Program. Then, thesis (0 SCU) can be taken in the first period of the 7<sup>th</sup> semester, meanwhile thesis (4 SCU) can be taken in the second period of the 7<sup>th</sup> semester by the students who meet the requirements from the Study Program/Program.

**Appendix: Minor Program  
 Minor Scheme**

<b>Minor Program</b>	<b>Semester 6</b>
----------------------	-------------------

	1 <sup>st</sup> Period	2 <sup>nd</sup> Period
<b>Minor @ Binus Online Learning</b>		
Technopreneurship	v	v
Artificial Intelligence in Business	v	v

**Minor Program: Technopreneurship**

Code	Course Name	SCU
ACCT6384039	Accounting for Small Medium Enterprise	4
MKTG6296038	Digital Marketing for Manager	4
ISYS6619035	UX for Digital Business	4
COMP6725036	Big Data Technologies	4
ISYE6196037	Industrial Feasibility Analysis	4
<b>Total SCU</b>		<b>20</b>

**Minor Program: Artificial Intelligence in Business**

Code	Course Name	SCU
ISYS6776035	Managerial Support Systems	4
ACCT6473039	Artificial Intelligence for Audit, Forensic Accounting, and Valuation	4
COMP6936036	Machine Learning	4
MGMT6483038	AI Marketing and Predicting Consumer Experiences	4
ISYE6284037	Cognitive Ergonomics	4
<b>Total SCU</b>		<b>20</b>

**Appendix: Free Electives****Free Elective**

For students who take free electives track in the 6<sup>th</sup> semester, the following is a list of courses that students can take for 20 credits.

No	Study Program	Course Code	Course	SCU	Semester
1	Computer Science PJJ	COMP6721036	Mobile Programming	4	6
2	Computer Science PJJ	COMP6617036	Cloud Computing	4	6
3	Management PJJ	MGMT6552038	Digital Logistic	4	6
4	Management PJJ	MGMT6551038	Ethics and Leadership in Digital Business	4	6
5	Industrial Engineering PJJ	ISYE6195037	Human Interaction in Service Systems	4	6
6	Industrial Engineering PJJ	ISYE6098037	Supply Chain Risk & Negotiation	4	6

No	Study Program	Course Code	Course	SCU	Semester
7	Accounting PJJ	ACCT6482039	Sustainability Reporting and Assurance	4	6
8	Information Systems PJJ	ISYS6701035	User Experience Research and Design	4	6
9	Information Systems PJJ	ISYS6878035	Data Modelling and Analytics	4	6

For students who take free electives track in the 7<sup>th</sup> semester, the following is a list of courses that students can take for 20 credits.

No	Study Program	Course Code	Course	SCU	Semester
1	Management PJJ	ENPR6300038	Managing Entrepreneurial Organization and Leadership	4/2	7
2	Management PJJ	BUSS6049038	Managing Innovation	4	7
3	Computer Science PJJ	COMP6940036	Deep Learning Application	4/2	7
4	Computer Science PJJ	COMP6277036	Geographic Information System	2/2	7
5	Computer Science PJJ	COMP6941036	Data Mining for Business Analytics	4/2	7
6	Computer Science PJJ	COMP6311036	Object Oriented Programming	4	7
7	Industrial Engineering PJJ	ISYE6287037	Industry 4.0 and Implementation	4	7
8	Industrial Engineering PJJ	ISYE6350037	Digital Simulation and Manufacturing System	4/2	7
9	Information Systems PJJ	ISYS6941035	Social Informatics	4/2	7
10	Information Systems PJJ	ISYS6942035	Information System Security	4/2	7

## Appendix: Enrichment

### Enrichment Track Scheme

Track scheme for semester 6 and 7. Student will take one of the tracks:

Enrichment Program Track									
Track	Semester 6		Semester 7						
	IS	IN	EN	RS	CD	SA	IS	FS	IDP
1	v	v							
2	v		v						
3	v			v					
4	v				v				
5	v					v			

6	v						v		
7	v								v

Students in semester 6 who take minor program or free electives, in semester 7 can take the enrichment track as follows:

Track	Enrichment Program Track							
	Semester 7							
	IN	EN	RS	CD	SA	IS	FS	IDP
1	v							
2		v						
3			v					
4				v				
5					v			
6						v		
7							v*	
8								v

\*) Regarding the implementation of the Further Study enrichment track as illustrated on the table above, if students wish to choose the Further Study track in semester 7, then their choice in semester 6 must be the Minor Program or Free Electives

**Note:**

- IN : Certified Internship
- EN : Certified Entrepreneurship
- RS : Certified Research
- CD : Certified Community Development
- SA : Certified Study Abroad
- FS : Further Study
- IS : Certified Specific Independent Study
- IDP : Certified Individual Development Project

**Certified Internship Track**

Code	Course Name	SCU	Total SCU
COMP6810036	Working Experiences in Information Technology	6	20
COMP6811036	Information Technology in Practice	4	
COMP6813036	Industrial Experience in Information Technology	6	
COMP6812036	Employability and Entrepreneurial Skills in Information Technology Industry	4	

**Certified Entrepreneurship Track**

Code	Course Name	SCU	Total SCU
ENPR6009036	Business Start Up in Information Technology	6	20
ENPR6010036	Business Model & Validation in Information Technology	4	
ENPR6011036	Launching New Venture in Information Technology	6	

ENPR6012036	Entrepreneurship and Managing New Business in Information Technology	4	
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**Certified Research Track**

Code	Course Name	SCU	Total SCU
RSCH6679036	Information Technology Research Experience	6	20
RSCH6680036	Scientific Writing in Information Technology Research	4	
RSCH6681036	Academic Writing for Information Technology Research	6	
RSCH6682036	Global Employability and Entrepreneurial Skills in Information Technology Research	4	

**Certified Community Development Track**

Code	Course Name	SCU	Total SCU
CMDV6446036	Community Development Project Implementation in Information Technology	6	20
CMDV6447036	Community Development Project Design in Information Technology	4	
CMDV6448036	Information Technology Program Execution for Community	6	
CMDV6449036	Employability and Entrepreneurial Skills in Information Technology Community	4	

**Certified Study Abroad Track**

Code	Course Name	SCU	Total SCU
GLOB6415036	Elective Course for Study Abroad 1	4	20
GLOB6416036	Elective Course for Study Abroad 2	4	
GLOB6417036	Elective Course for Study Abroad 3	3	
GLOB6418036	Elective Course for Study Abroad 4	3	
GLOB6419036	Elective Course for Study Abroad 5	3	
GLOB6420036	Elective Course for Study Abroad 6	2	
GLOB6421036	Elective Course for Study Abroad 7	2	
GLOB6422036	Elective Course for Study Abroad 8	2	
GLOB6423036	Elective Course for Study Abroad 9	1	
GLOB6424036	Elective Course for Study Abroad 10	1	
GLOB6425036	Elective Course for Study Abroad 11	4	
GLOB6426036	Elective Course for Study Abroad 12	4	
GLOB6427036	Elective Course for Study Abroad 13	3	
GLOB6428036	Elective Course for Study Abroad 14	3	
GLOB6429036	Elective Course for Study Abroad 15	3	
GLOB6430036	Elective Course for Study Abroad 16	2	
GLOB6431036	Elective Course for Study Abroad 17	2	
GLOB6432036	Elective Course for Study Abroad 18	2	

Code	Course Name	SCU	Total SCU
GLOB6433036	Elective Course for Study Abroad 19	1	
GLOB6434036	Elective Course for Study Abroad 20	1	

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

### Certified Specific Independent Study Track Enrichment Program I

Code	Course Name	SCU
CSIS6037036	Course Certification	3
CSIS6038036	Technical Skill Enrichment	4
CSIS6039036	Industrial Project	9
CSIS6040036	Soft Skill Enrichment	4
CSIS6041036	Elective Course for Specific Independent Study 1	4
CSIS6042036	Elective Course for Specific Independent Study 2	4
CSIS6043036	Elective Course for Specific Independent Study 3	3
CSIS6044036	Elective Course for Specific Independent Study 4	3
CSIS6045036	Elective Course for Specific Independent Study 5	3
CSIS6046036	Elective Course for Specific Independent Study 6	2
CSIS6047036	Elective Course for Specific Independent Study 7	2
CSIS6048036	Elective Course for Specific Independent Study 8	2
CSIS6049036	Elective Course for Specific Independent Study 9	1
CSIS6050036	Elective Course for Specific Independent Study 10	1
CSIS6051036	Elective Course for Specific Independent Study 11	4
CSIS6052036	Elective Course for Specific Independent Study 12	4
CSIS6053036	Elective Course for Specific Independent Study 13	3
CSIS6054036	Elective Course for Specific Independent Study 14	3
CSIS6055036	Elective Course for Specific Independent Study 15	3
CSIS6056036	Elective Course for Specific Independent Study 16	2
CSIS6057036	Elective Course for Specific Independent Study 17	2
CSIS6058036	Elective Course for Specific Independent Study 18	2
CSIS6059036	Elective Course for Specific Independent Study 19	1
CSIS6060036	Elective Course for Specific Independent Study 20	1
CSIS6097036	Elective Course for Specific Independent Study 21	6
CSIS6098036	Elective Course for Specific Independent Study 22	6
CSIS6099036	Elective Course for Specific Independent Study 23	6
<b>Total SCU</b>		<b>20</b>

\*) 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 23 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.

### Enrichment Program II

For students who take Specific Independent Study track in the 7<sup>th</sup> semester, they should take these courses:

Code	Course Name	SCU
CSIS6037036	Course Certification	3
CSIS6038036	Technical Skill Enrichment	4
CSIS6039036	Industrial Project	9
CSIS6040036	Soft Skill Enrichment	4
CSIS6100036	Elective Course for Specific Independent Study 24	4
CSIS6101036	Elective Course for Specific Independent Study 25	4
CSIS6102036	Elective Course for Specific Independent Study 26	3
CSIS6103036	Elective Course for Specific Independent Study 27	3
CSIS6104036	Elective Course for Specific Independent Study 28	3
CSIS6105036	Elective Course for Specific Independent Study 29	2
CSIS6106036	Elective Course for Specific Independent Study 30	2
CSIS6107036	Elective Course for Specific Independent Study 31	2
CSIS6108036	Elective Course for Specific Independent Study 32	1
CSIS6109036	Elective Course for Specific Independent Study 33	1
CSIS6110036	Elective Course for Specific Independent Study 34	4
CSIS6111036	Elective Course for Specific Independent Study 35	4
CSIS6112036	Elective Course for Specific Independent Study 36	3
CSIS6113036	Elective Course for Specific Independent Study 37	3
CSIS6114036	Elective Course for Specific Independent Study 38	3
CSIS6115036	Elective Course for Specific Independent Study 39	2
CSIS6116036	Elective Course for Specific Independent Study 40	2
CSIS6117036	Elective Course for Specific Independent Study 41	2
CSIS6118036	Elective Course for Specific Independent Study 42	1
CSIS6119036	Elective Course for Specific Independent Study 43	1
CSIS6120036	Elective Course for Specific Independent Study 44	6
CSIS6121036	Elective Course for Specific Independent Study 45	6
CSIS6122036	Elective Course for Specific Independent Study 46	6
<b>Total SCU</b>		<b>20</b>

*\*) For students who take BINUS certified specific independent study courses, they should take the first 4 courses on the list above (20 credits). Meanwhile, elective courses 24 to 46 are transferred courses for students who take certified specific independent study outside BINUS University. Transferred courses will be transferred based on credit transfer policies on study program with total of 20 credits.*

### Further Study Track

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

**Certified Individual Development Project Track**

Code	Course Name	SCU	Total SCU
COMP6944036	Industrial Project Planning in Information Technology	6	20
COMP6945036	Industrial Project Implementation in Information Technology	4	
COMP6946036	Industrial Project Evaluation and Reporting in Information Technology	6	
COMP6947036	Business Ethics in Information Technology Industry	4	

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

No.	Course Code	Course	Minimal Grade	Semester	Period
1	CHAR6019036	Character Building: Pancasila	B	1	1
2	ENPR6253036	Entrepreneurship	C	4	1
3	COMP6112036	Algorithm and Programming	C	1	1
4	COSC6026036	Software Design	C	1	2
5	COSC6025036	Data Structures and Algorithm Analysis	C	2	1
6	COSC6024036	Research Methodology in Computer Science	C	4	2
7	COSC6031036	Data Acquisition and Management	C	4	1
8	COSC6029036	Storytelling With Data	C	3	2

## 1.11.6 Digital Business Management

### Introduction

The Digital Business Management Program from Business Management BINUS Online Undergraduate Program provides students with the highest standard of business management education with a focus on the utilization of technology to develop business solutions. The Digital Business Management Program is meticulously designed to equip students with the knowledge, skills, and tools necessary to thrive in today's fast-paced and ever-evolving digital landscape.

The Digital Business Management Program is designed to prepare the students to be ready to become proficient leaders who can navigate and leverage the intricacies of digital business. To support this objective, the Digital Business Management Program places a strong emphasis on developing critical thinking, problem-solving, and leadership skills. The Digital Business Management Program offers students a wide variety of academic career and leadership programs including collaborative projects, internships, industry partnerships, study abroad, and research activities, providing them with invaluable experience and a robust professional network, as well as applied research theses with real digital business management-related problems. Students will engage in guest lectures, international experience, industrial sharing sessions from various industry practitioners and professionals, involvement in student organizations, and community service.

The program offers a comprehensive curriculum that blends core business principles with cutting-edge digital technologies. A bachelor's degree in Digital Business Management Program enables students to achieve foundation knowledge and develop their analytical skills in Design Thinking in Business, Strategic Management, Retail and Merchandising, and Project Management. By integrating theoretical knowledge with practical applications, the program ensures that graduates are well-prepared to meet the challenges and seize the opportunities presented by the digital economy. The curriculum in the Business Management Study Program equipped students to become future-ready business leaders who can harness the power of digital technologies to drive growth and innovation by embedding the application of Artificial Intelligence as well as has been benchmarked to renowned universities around the world. This curriculum is then combined with the Indonesian National Curriculum and core values developed by BINUS.

### **Vision**

To become a world-class Distance Learning Management Study Program in 2035 in international business management, entrepreneurship, and digital business with a continuous commitment to fostering and empowering communities.

### **Mission**

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

1. Developing Binusian competence and expertise through Management Science, International Business, Entrepreneurship, and Digital Business with the concept of online learning and awarding excel Binusian
2. Guiding Binusian through research in Business Management Science and enrichment of technology development, which impacts business, society, and the nation
3. Fostering Binusian to continue to develop knowledge through independent and sustainable enrichment
4. Empowering the society and partner community by Binusian through creative economy development
5. Consistently applying novel Management Science aligned with human resources needs in the industry (multidisciplinary perspective)

### **Program Objective**

The objectives of the program:

1. Generating Binusian who have competence and expertise in Management Science, International Business, Entrepreneurship, and Digital Business and rewarding Binusian achievement nationally and internationally
2. Provide excellent research related to Business Management issues through a multidisciplinary approach and impactful to business, communities, and nation
3. Generating Binusian who have managerial skills from independent and continuous learning
4. The society and partner community can develop their skills and business sustainably
5. Binusian becomes a creative entrepreneur and agent of change equipped with knowledge and expertise in digital business management

### **Student Outcomes**

After completing the study, graduates are:

1. Able to comprehend management and business concepts
2. Able to systematically and innovatively solve problems and overcome challenges in businesses
3. Able to perform global and sustainability mindsets in applying business concepts
4. Able to apply ethical and professional values
5. Able to create business value through digital transformation
6. Able to solve problems through the multidisciplinary approach

### Prospective Career of the Graduates

With the above-mentioned skills and knowledge, the Digital Business Management graduate is able to follow a career in:

1. Marketing Leader/HRM Leader
2. Operational Leader/Finance Leader
3. Consultant Management/ Digital Business Consultant
4. Researcher
5. Entrepreneur/Technopreneur
6. Business Intelligent
7. Digital Business Specialist
8. Social Media Specialist
9. Digital Business Analyst
10. Digital Content Creator

### Curriculum

The curriculum is based on the National Curriculum and Management study program association that covers management knowledge and skills as well as attitude to support core competence.

### Course Structure

Sem	Code	Course Name	SCU	Total
1	MGMT6555038	Digital Management	4	20
	MATH6158038	Business Mathematics	2	
	MKTG6113038	Marketing Management	4	
	BUSS6252038	Business Ethics and Sustainability	4/2	
	ISYS6599038	Management Information Systems for Leader	4	
2	CHAR6019038	Character Building: Pancasila	2	20
	MGMT6157038	Human Resources Management	4	
	ECON6095038	Business Economics	4	
	MGMT6474038	Digital Business Fundamentals	4	
	MGMT6525038	Digital Consumer Behaviour	4	
	COSC6012038	Foundations of Artificial Intelligence	2	
3	CHAR6020038	Character Building: Kewarganegaraan	2	20

Sem	Code	Course Name	SCU	Total
	FINC6046038	Financial Management	4	
	MGMT6448038	Operations Management	4	
	MGMT6526038	Design Thinking for Product Innovations With Artificial Intelligence	4	
	MGMT6524038	Digital Business Analytics	4/2	
4	CHAR6021038	Character Building: Agama	2	20
	ACCT6363038	Accounting for Business	4	
	MGMT6527038	Digital Transformation and Business Strategy	4	
	MGMT6475038	Social Media and Mobile Marketing	4	
	ENGL6163038	English Professional	4	
	ENPR6253038	Entrepreneurship	2	
5	STAT6123038	Business Statistics and Research Methodology	4/2	20
	MGMT6478038	Digital Human Resources Management	4	
	MGMT6477038	Financial Technology	4	
	MGMT6528038	Agile Project Management	2/2	
	LANG6031038	Indonesian	2	
6	<b>Minor Program</b>			20
	<b>Free Electives</b>			
	<b>Enrichment Program I</b>			
7	<b>Free Electives</b>			20
	<b>Enrichment Program II</b>			
8	RSCH6691038	Pre-Thesis	0	6
	RSCH6049038	Thesis	0	
	RSCH6689038	Pre-Thesis	2	
	RSCH6690038	Thesis	4	
	RSCH6024038	Thesis	6	
<b>Total Credit 146 SCU</b>				

*\*Semester 6: Students are required to choose Minor Program or Free Electives or Enrichment Program. See appendix for the details*

*\*Semester 7: Students are required to choose Free Electives or Individual Development Project or one of enrichment program tracks.*

*\*Pre thesis (0 SCU) can be taken in the first period of the 6<sup>th</sup> semester, meanwhile pre thesis (2 SCU) can be taken in the second period of the 6<sup>th</sup> semester by the students who meet the requirements from the Study Program/Program. Then, thesis (0 SCU) can be taken in the first period of the 7<sup>th</sup> semester, meanwhile thesis (4 SCU) can be taken in the second period of the 7<sup>th</sup> semester by the students who meet the requirements from the Study Program/Program.*

**Appendix: Minor Program  
 Minor Scheme**

Minor Program	Semester 6	
	1 <sup>st</sup> Period	2 <sup>nd</sup> Period
<b>Minor @ Binus Online Learning</b>		
Technopreneurship	v	v
Artificial Intelligence in Business	v	v

**Minor Program: Technopreneurship**

Code	Course Name	SCU
ACCT6384039	Accounting for Small Medium Enterprise	4
MKTG6296038	Digital Marketing for Manager	4
ISYS6619035	UX for Digital Business	4
COMP6725036	Big Data Technologies	4
ISYE6196037	Industrial Feasibility Analysis	4
<b>Total SCU</b>		<b>20</b>

**Minor Program: Artificial Intelligence in Business**

Code	Course Name	SCU
ISYS6776035	Managerial Support Systems	4
ACCT6473039	Artificial Intelligence for Audit, Forensic Accounting, and Valuation	4
COMP6936036	Machine Learning	4
MGMT6483038	AI Marketing and Predicting Consumer Experiences	4
ISYE6284037	Cognitive Ergonomics	4
<b>Total SCU</b>		<b>20</b>

**Appendix: Free Electives****Free Elective**

For students who take free electives track in the 6<sup>th</sup> semester, the following is a list of courses that students can take for 20 credits

No	Study Program	Course Code	Course	SCU	Semester
1	Management PJJ	MKTG6117038	Entrepreneurial Marketing	4	6
2	Management PJJ	ENTR6053038	Entrepreneurial Finance	4	6
3	Management PJJ	COMM6092038	Business Communication	4	6
4	Management PJJ	MGMT6552038	Digital Logistic	4	6
5	Management PJJ	MGMT6551038	Ethics and Leadership in Digital Business	4	6
6	Computer Science PJJ	COSC6023036	Artificial Intelligence	2/2	6
7	Computer Science PJJ	COMP6621036	Web Programming	4	6
8	Computer Science PJJ	COMP6617036	Cloud Computing	4	6
9	Industrial Engineering PJJ	ISYE6195037	Human Interaction in Service Systems	4	6

No	Study Program	Course Code	Course	SCU	Semester
10	Industrial Engineering PJJ	ISYE6098037	Supply Chain Risk & Negotiation	4	6
11	Accounting PJJ	ACCT6130039	Cost Accounting	4	6
12	Accounting PJJ	ACCT6482039	Sustainability Reporting and Assurance	4	6
13	Information Systems PJJ	ISYS6701035	User Experience Research and Design	4	6
14	Information Systems PJJ	ISYS6879035	Information Systems Management, Planning and Innovation	4	6
15	Information Systems PJJ	ISYS6878035	Data Modelling and Analytics	4	6
16	Information Systems PJJ	ISYS6877035	IT Governance and Security	4	6
17	Information Systems PJJ	ISYS6321035	Technology & Infrastructure of e-Business	4	6

For students who take free electives track in the 7<sup>th</sup> semester, the following is a list of courses that students can take for 20 credits.

No	Study Program	Course Code	Course	SCU	Semester
1	Management PJJ	ENPR6300038	Managing Entrepreneurial Organization and Leadership	4/2	7
2	Management PJJ	MGMT6562038	E-Corporate Strategy and Management	4/2	7
3	Management PJJ	MGMT6563038	E-Marketing and E-CRM	4/2	7
4	Management PJJ	MGMT6162038	Change Management	4	7
5	Management PJJ	BUSS6049038	Managing Innovation	4	7
6	Management PJJ	MGMT6553038	Digital Retail and Merchandising	4	7
7	Management PJJ	MGMT6554038	Digital Economy	4	7
8	Computer Science PJJ	COMP6277036	Geographic Information System	2/2	7
9	Computer Science PJJ	COMP6941036	Data Mining for Business Analytics	4/2	7
10	Industrial Engineering PJJ	ISYE6287037	Industry 4.0 and Implementation	4	7
11	Industrial Engineering PJJ	ISYE6288037	Smart Manufacturing	4	7
12	Accounting PJJ	ACCT6532039	International Accounting	4/2	7
13	Information Systems PJJ	ISYS6941035	Social Informatics	4/2	7
14	Information Systems PJJ	ISYS6942035	Information System Security	4/2	7

## Appendix: Enrichment

### Enrichment Track Scheme

Track scheme for semester 6 and 7. Student will take one of the tracks:

Enrichment Program Track									
Track	Semester 6	Semester 7							
	IS	IN	EN	RS	CD	SA	IS	FS	IDP
1	v	v							
2	v		v						
3	v			v					
4	v				v				
5	v					v			
6	v						v		
7	v								v

Students in semester 6 who take minor program or free electives, in semester 7 can take the enrichment track as follows:

Enrichment Program Track								
Track	Semester 7							
	IN	EN	RS	CD	SA	IS	FS	IDP
1	v							
2		v						
3			v					
4				v				
5					v			
6						v		
7							v*	
8								v

*\*) Regarding the implementation of the Further Study enrichment track as illustrated on the table above, if students wish to choose the Further Study track in semester 7, then their choice in semester 6 must be the Minor Program or Free Electives*

**Note:**

- IN : Certified Internship
- EN : Certified Entrepreneurship
- RS : Certified Research
- CD : Certified Community Development
- SA : Certified Study Abroad
- FS : Further Study
- IS : Certified Specific Independent Study
- IDP : Certified Individual Development Project

**Certified Internship Track**

Code	Course Name	SCU	Total SCU
MGMT6429038	Working Experience in Management	6	20
MGMT6430038	Management in Practice	4	
MGMT6432038	Industrial Experience in Management	6	
MGMT6431038	Employability and Entrepreneurial Skills in Management Industry	4	

**Certified Entrepreneurship Track**

Code	Course Name	SCU	Total SCU
ENPR6025038	Business Start Up in Management	6	20
ENPR6026038	Business Model & Validation in Management	4	
ENPR6027038	Launching New Venture in Management	6	
ENPR6028038	Entrepreneurship and Managing New Business in Management	4	

**Certified Research Track**

Code	Course Name	SCU	Total SCU
RSCH6671038	Management Research Experience	6	20
RSCH6672038	Scientific Writing in Management Research	4	
RSCH6673038	Academic Writing for Management Research	6	
RSCH6674038	Global Employability and Entrepreneurial Skills in Management Research	4	

**Certified Community Development Track**

Code	Course Name	SCU	Total SCU
CMDV6438038	Community Development Project Implementation in Management	6	20
CMDV6439038	Community Development Project Design in Management	4	
CMDV6440038	Management Program Execution for Community	6	
CMDV6441038	Employability and Entrepreneurial Skills in Management Community	4	

**Certified Study Abroad Track**

Code	Course Name	SCU	Total SCU
GLOB6415038	Elective Course for Study Abroad 1	4	20
GLOB6416038	Elective Course for Study Abroad 2	4	
GLOB6417038	Elective Course for Study Abroad 3	3	
GLOB6418038	Elective Course for Study Abroad 4	3	
GLOB6419038	Elective Course for Study Abroad 5	3	
GLOB6420038	Elective Course for Study Abroad 6	2	

Code	Course Name	SCU	Total SCU
GLOB6421038	Elective Course for Study Abroad 7	2	
GLOB6422038	Elective Course for Study Abroad 8	2	
GLOB6423038	Elective Course for Study Abroad 9	1	
GLOB6424038	Elective Course for Study Abroad 10	1	
GLOB6425038	Elective Course for Study Abroad 11	4	
GLOB6426038	Elective Course for Study Abroad 12	4	
GLOB6427038	Elective Course for Study Abroad 13	3	
GLOB6428038	Elective Course for Study Abroad 14	3	
GLOB6429038	Elective Course for Study Abroad 15	3	
GLOB6430038	Elective Course for Study Abroad 16	2	
GLOB6431038	Elective Course for Study Abroad 17	2	
GLOB6432038	Elective Course for Study Abroad 18	2	
GLOB6433038	Elective Course for Study Abroad 19	1	
GLOB6434038	Elective Course for Study Abroad 20	1	

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

### Certified Specific Independent Study Track Enrichment Program I

Code	Course Name	SCU
CSIS6037038	Course Certification	3
CSIS6038038	Technical Skill Enrichment	4
CSIS6039038	Industrial Project	9
CSIS6040038	Soft Skill Enrichment	4
CSIS6041038	Elective Course for Specific Independent Study 1	4
CSIS6042038	Elective Course for Specific Independent Study 2	4
CSIS6043038	Elective Course for Specific Independent Study 3	3
CSIS6044038	Elective Course for Specific Independent Study 4	3
CSIS6045038	Elective Course for Specific Independent Study 5	3
CSIS6046038	Elective Course for Specific Independent Study 6	2
CSIS6047038	Elective Course for Specific Independent Study 7	2
CSIS6048038	Elective Course for Specific Independent Study 8	2
CSIS6049038	Elective Course for Specific Independent Study 9	1
CSIS6050038	Elective Course for Specific Independent Study 10	1
CSIS6051038	Elective Course for Specific Independent Study 11	4
CSIS6052038	Elective Course for Specific Independent Study 12	4
CSIS6053038	Elective Course for Specific Independent Study 13	3
CSIS6054038	Elective Course for Specific Independent Study 14	3
CSIS6055038	Elective Course for Specific Independent Study 15	3
CSIS6056038	Elective Course for Specific Independent Study 16	2
CSIS6057038	Elective Course for Specific Independent Study 17	2
CSIS6058038	Elective Course for Specific Independent Study 18	2

Code	Course Name	SCU
CSIS6059038	Elective Course for Specific Independent Study 19	1
CSIS6060038	Elective Course for Specific Independent Study 20	1
CSIS6097038	Elective Course for Specific Independent Study 21	6
CSIS6098038	Elective Course for Specific Independent Study 22	6
CSIS6099038	Elective Course for Specific Independent Study 23	6
<b>Total SCU</b>		<b>20</b>

\*) 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 23 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.

### Enrichment Program II

For students who take Specific Independent Study track in the 7<sup>th</sup> semester, they should take these courses:

Code	Course Name	SCU
CSIS6037038	Course Certification	3
CSIS6038038	Technical Skill Enrichment	4
CSIS6039038	Industrial Project	9
CSIS6040038	Soft Skill Enrichment	4
CSIS6100038	Elective Course for Specific Independent Study 24	4
CSIS6101038	Elective Course for Specific Independent Study 25	4
CSIS6102038	Elective Course for Specific Independent Study 26	3
CSIS6103038	Elective Course for Specific Independent Study 27	3
CSIS6104038	Elective Course for Specific Independent Study 28	3
CSIS6105038	Elective Course for Specific Independent Study 29	2
CSIS6106038	Elective Course for Specific Independent Study 30	2
CSIS6107038	Elective Course for Specific Independent Study 31	2
CSIS6108038	Elective Course for Specific Independent Study 32	1
CSIS6109038	Elective Course for Specific Independent Study 33	1
CSIS6110038	Elective Course for Specific Independent Study 34	4
CSIS6111038	Elective Course for Specific Independent Study 35	4
CSIS6112038	Elective Course for Specific Independent Study 36	3
CSIS6113038	Elective Course for Specific Independent Study 37	3
CSIS6114038	Elective Course for Specific Independent Study 38	3
CSIS6115038	Elective Course for Specific Independent Study 39	2
CSIS6116038	Elective Course for Specific Independent Study 40	2
CSIS6117038	Elective Course for Specific Independent Study 41	2
CSIS6118038	Elective Course for Specific Independent Study 42	1
CSIS6119038	Elective Course for Specific Independent Study 43	1
CSIS6120038	Elective Course for Specific Independent Study 44	6
CSIS6121038	Elective Course for Specific Independent Study 45	6
CSIS6122038	Elective Course for Specific Independent Study 46	6
<b>Total SCU</b>		<b>20</b>

\*) 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 24 to 46 are transferred courses for students who take

*certified specific independent study outside BINUS University. Transferred courses will be transferred based on credit transfer policies on study program with total of 20 credits.*

### Further Study Track

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

### Certified Individual Development Project Track

Code	Course Name	SCU	Total SCU
MGMT6489038	Industrial Project Planning in Management	6	20
MGMT6490038	Industrial Project Implementation in Management	4	
MGMT6491038	Industrial Project Evaluation and Reporting in Management	6	
MGMT6492038	Business Ethics in Management Industry	4	

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

No.	Course Code	Course	SCU	Minimal Grade	Semester	Period
1	CHAR6019038	Character Building: Pancasila	2	B	2	1
2	ENPR6253038	Entrepreneurship	2	C	4	2
3	MKTG6113038	Marketing Management	4	C	1	2
4	MGMT6157038	Human Resources Management	4	C	2	1
5	MGMT6555038	Digital Management	4	C	1	1
6	BUSS6252038	Business Ethics and Sustainability	4/2	C	1	1
7	MGMT6475038	Social-Media and Mobile Marketing	4	C	4	2
8	MGMT6524038	Digital Business Analytics	4/2	C	3	2

## 1.11.7 Finance

### Introduction

The curriculum of the Finance Program at Binus Online will prepare students to face the complexities of current financial concepts and practices. The Finance Program also has strong collaboration with companies and professional associations both nationally and internationally. By joining the Finance program, students will be equipped with knowledge and skills in accounting, finance, data analytics, and financial technology as well as professional skills. Thus preparing leaders with critical thinking abilities and innovation according to business needs, especially in the financial industry.

### Vision

To become a leading undergraduate Accounting Distance Learning Study Program that produces professional accountants with business skill, data science analysis, and applied information technology (IT) expertise with a continuing commitment to fostering and empowering communities.

## **Mission**

The mission of Accounting Study Program is to contribute to the global community through the provision of world-class education by:

1. Educating binusian from the basic skills accounting knowledge toward to analysis data science (financial and non-financial), business practices and applied information technology to prepare graduates to become professional accountants in a variety of industries and prepare them to pursue advanced degrees in accounting, finance, or related disciplines.
2. Guiding binusian through impactful and internationally recognized research in accounting to solve problems in communities.
3. Fostering Binusian through independent and sustainable enrichment.
4. Empowering the community by Binusians through community service activities.
5. Consistently applying the new Accounting Science that is aligned with the industry needs in multidiscipline view

## **Program Objective**

The objectives of the program are:

1. Preparing accounting students have professional skill, high integrity, caring the society interests, have a global orientation and responsive to scientific and technological advances required by industry
2. Preparing accounting students with strong technical skills in creating and analyzing data science (financial and non-financial) in order to fulfill accounting information
3. Preparing accounting students with skilled organizational, communication and business knowledge to succeed in accounting careers

## **Student Outcomes**

After completing the study, graduates are:

1. Able to interpret the entity's financial statements by applying accounting principles to transactions in accordance with the IFRS converged Financial Accounting Standards and the prevailing ETAP financial accounting standards
2. Able to analyze performance reporting according to accounting principles as the basis for planning, controlling and decision-making by entity management to increase the effectiveness of organizational performance
3. Able to carry out the audit process and use of accounting information systems for auditing financial statements according to Generally Accepted Auditing Standards (GAAS) and International Standards on Auditing (ISA)
4. Able to apply tax obligations for the Monthly Taxes and Annual Taxes in accordance with the tax regulations in Indonesia
5. Able to carry out financing and investment analysis by applying technology for company decision making and business sustainability
6. Able to solve problems through the multidisciplinary approach

## **Prospective Career of the Graduates**

With the above-mentioned skills and knowledge, graduate of Finance Program is able to follow a career in:

1. Management Accountant
2. Internal Auditor

3. Financial Controller
4. Financial Analyst
5. Financial Planner
6. Investment Analyst
7. Banker
8. Financial Controller

## Curriculum

The curriculum has been developed to provide an education with high quality standards. It is based on the development of the sciences and practices related to government regulation, economics, information technology, National and International Accounting Association.

## Course Structure

Sem	Code	Course Name	SCU	Total
1	CHAR6019039	Character Building: Pancasila	2	20
	MGMT6413039	Introduction to Business and Economics	4	
	ACCT6530039	Introduction to Accounting	4/2	
	ACCT6130039	Cost Accounting	4	
	FINC6223039	Financial Market and Digital Finance Ecosystem	4	
2	TAXN6032039	Taxation	4	20
	ACCT6131039	Managerial Accounting	4	
	ACCT6429039	Financial Accounting I	4	
	ACCT6531039	Audit and Assurance	4/2	
	COSC6012039	Foundations of Artificial Intelligence	2	
3	CHAR6020039	Character Building: Kewarganegaraan	2	20
	FINC6205039	Financial Management	4	
	ACCT6522039	Financial Statement Analysis	4	
	ACCT6430039	Financial Accounting II	4	
	ENGL6163039	English Professional	4	
	LANG6031039	Indonesian	2	
4	CHAR6021039	Character Building: Agama	2	20
	FINC6225039	International Finance	4	
	ACCT6514039	ERP Financial Accounting & Controlling	2/2	
	ACCT6193039	Research Methodology in Accounting and Finance	4	
	ACCT6517039	Data Analytics and Visualization for Business	2/2	
	ENPR6253039	Entrepreneurship	2	
5	FINC6222039	Quantitative Analysis	4	20
	FINC6224039	Corporate Finance and Valuation	4	
	FINC6226039	Investment Analysis and Portfolio Management	4	
	FINC6227039	Risk Management	4	
	FINC6228039	Entrepreneurial Finance	4	

Sem	Code	Course Name	SCU	Total
6	<b>Minor Program</b>			20
	<b>Free Electives</b>			
	<b>Enrichment Program I</b>			
7	<b>Free Electives</b>			20
	<b>Enrichment Program II</b>			
8	ACCT6494039	Pre Thesis	0	6
	ACCT6180039	Thesis	0	
	ACCT6187039	Thesis	6	
	ACCT6491039	Pre Thesis	2	
	ACCT6492039	Thesis	4	
<b>Total Credit 146 SCU</b>				

\*Semester 6: Students are required to choose Minor Program or Free Electives or Enrichment Program. See appendix for the details

\*Semester 7: Students are required to choose Free Electives or one of enrichment program tracks.

\***Pre thesis (0 SCU)** can be taken in the first period of the 6<sup>th</sup> semester, meanwhile **pre thesis (2 SCU)** can be taken in the second period of the 6<sup>th</sup> semester by the students who meet the requirements from the Study Program/Program. Then, **thesis (0 SCU)** can be taken in the first period of the 7<sup>th</sup> semester, meanwhile **thesis (4 SCU)** can be taken in the second period of the 7<sup>th</sup> semester by the students who meet the requirements from the Study Program/Program.

### Appendix: Minor Program Minor Scheme

Minor Program	Semester 6	
	1 <sup>st</sup> Period	2 <sup>nd</sup> Period
<b>Minor @ Binus Online Learning</b>		
Technopreneurship	v	v
Artificial Intelligence in Business	v	v

#### Minor Program: Technopreneurship

Code	Course Name	SCU
ACCT6384039	Accounting for Small Medium Enterprise	4
MKTG6296038	Digital Marketing for Manager	4
ISYS6619035	UX for Digital Business	4
COMP6725036	Big Data Technologies	4
ISYE6196037	Industrial Feasibility Analysis	4
<b>Total SCU</b>		<b>20</b>

#### Minor Program: Artificial Intelligence in Business

Code	Course Name	SCU
ISYS6776035	Managerial Support Systems	4

Code	Course Name	SCU
ACCT6473039	Artificial Intelligence for Audit, Forensic Accounting, and Valuation	4
COMP6936036	Machine Learning	4
MGMT6483038	AI Marketing and Predicting Consumer Experiences	4
ISYE6284037	Cognitive Ergonomics	4
<b>Total SCU</b>		<b>20</b>

### Appendix: Free Electives

#### Free Elective

For students who take free electives track in the 6<sup>th</sup> semester, the following is a list of courses that students can take for 20 credits.

No	Study Program	Course Code	Course	SCU	Semester
1	Management PJJ	MGMT6448038	Operations Management	4	6
2	Management PJJ	MKTG6117038	Entrepreneurial Marketing	4	6
3	Management PJJ	COMM6092038	Business Communication	4	6
4	Management PJJ	MGMT6551038	Ethics and Leadership in Digital Business	4	6
5	Computer Science PJJ	COSC6023036	Artificial Intelligence	2/2	6
6	Industrial Engineering PJJ	ISYE6285037	Financial Engineering	4	6
7	Industrial Engineering PJJ	ISYE6098037	Supply Chain Risk & Negotiation	4	6
8	Accounting PJJ	ACCT6482039	Sustainability Reporting and Assurance	4	6
9	Accounting PJJ	ACCT6525039	Strategic Management Accounting	4	6
10	Accounting PJJ	ACCT6526039	Financial Innovation and Blockchain	4	6
11	Business Law	LAWS6197028	Legal Aspect in Business	4	6
12	Information Systems PJJ	ISYS6701035	User Experience Research and Design	4	6
13	Information Systems PJJ	ISYS6879035	Information Systems Management, Planning and Innovation	4	6
14	Information Systems PJJ	ISYS6878035	Data Modelling and Analytics	4	6
15	Information Systems PJJ	ISYS6877035	IT Governance and Security	4	6
16	Information Systems PJJ	ISYS6599035	Management Information Systems for Leader	4	6
17	Information Systems PJJ	ISYS6321035	Technology & Infrastructure of e-Business	4	6

For students who take free electives track in the 7<sup>th</sup>-semester, the following is a list of courses that students can take for 20 credits.

No	Study Program	Course Code	Course	SCU	Semester
1	Management PJJ	ENPR6300038	Managing Entrepreneurial Organization and Leadership	4/2	7
2	Management PJJ	MGMT6562038	E-Corporate Strategy and Management	4/2	7

No	Study Program	Course Code	Course	SCU	Semester
3	Management PJJ	MGMT6563038	E-Marketing and E-CRM	4/2	7
4	Management PJJ	MGMT6162038	Change Management	4	7
5	Management PJJ	BUSS6049038	Managing Innovation	4	7
6	Management PJJ	MGMT6553038	Digital Retail and Merchandising	4	7
7	Management PJJ	MGMT6554038	Digital Economy	4	7
8	Computer Science PJJ	COMP6941036	Data Mining for Business Analytics	4/2	7
9	Industrial Engineering PJJ	ISYE6287037	Industry 4.0 and Implementation	4	7
10	Accounting PJJ	ACCT6532039	International Accounting	4/2	7
11	Accounting PJJ	ACCT6527039	Asset and Liability Management	4/2	7
12	Accounting PJJ	ACCT6336039	Accounting Theory	4	7
13	Accounting PJJ	ACCT6437039	Public Sector Accounting	4	7
14	Information Systems PJJ	ISYS6941035	Social Informatics	4/2	7
15	Information Systems PJJ	ISYS6942035	Information System Security	4/2	7

## Appendix: Enrichment

### Enrichment Track Scheme

Track scheme for semester 6 and 7. Student will take one of the tracks:

Enrichment Program Track									
Track	Semester 6	Semester 7							
	IS	IN	EN	RS	CD	SA	IS	FS	IDP
1	v	v							
2	v		v						
3	v			v					
4	v				v				
5	v					v			
6	v						v		
7	v								v

Students in semester 6 who take minor program or free electives, in semester 7 can take the enrichment track as follows:

Track	Enrichment Program Track							
	Semester 7							
	IN	EN	RS	CD	SA	IS	FS	IDP
1	v							
2		v						
3			v					
4				v				
5					v			
6						v		
7							v*	
8								v

\*) Regarding the implementation of the Further Study enrichment track as illustrated on the table above, if students wish to choose the Further Study track in semester 7, then their choice in semester 6 must be the Minor Program or Free Electives

**Note:**

- IN : Certified Internship
- EN : Certified Entrepreneurship
- RS : Certified Research
- CD : Certified Community Development
- SA : Certified Study Abroad
- FS : Further Study
- IS : Certified Specific Independent Study

**Certified Internship Track**

Code	Course Name	SCU	Total SCU
ACCT6404039	Working Experience in Accounting and Finance	6	20
ACCT6405039	Accounting and Finance in Practice	4	
ACCT6407039	Industrial Experience in Accounting and Finance	6	
ACCT6406039	Employability and Entrepreneurial Skills in Accounting and Finance Industry	4	

**Certified Entrepreneurship Track**

Code	Course Name	SCU	Total SCU
ENPR6033039	Business Start Up in Accounting and Finance	6	20
ENPR6034039	Business Model & Validation in Accounting and Finance	4	
ENPR6035039	Launching New Venture in Accounting and Finance	6	
ENPR6036039	Entrepreneurship and Managing New Business in Accounting and Finance	4	

**Certified Research Track**

Code	Course Name	SCU	Total SCU
RSCH6667039	Accounting and Finance Research Experience	6	20

RSCH6668039	Scientific Writing in Accounting and Finance Research	4
RSCH6669039	Academic Writing for Accounting and Finance Research	6
RSCH6670039	Global Employability and Entrepreneurial Skills in Accounting and Finance Research	4

**Certified Community Development Track**

Code	Course Name	SCU	Total SCU
CMDV6434039	Community Development Project Implementation in Accounting and Finance	6	20
CMDV6435039	Community Development Project Design in Accounting and Finance	4	
CMDV6436039	Accounting and Finance Program Execution for Community	6	
CMDV6437039	Employability and Entrepreneurial Skills in Accounting and Finance Community	4	

**Certified Study Abroad Track**

Code	Course Name	SCU	Total SCU
GLOB6415039	Elective Course for Study Abroad 1	4	20
GLOB6416039	Elective Course for Study Abroad 2	4	
GLOB6417039	Elective Course for Study Abroad 3	3	
GLOB6418039	Elective Course for Study Abroad 4	3	
GLOB6419039	Elective Course for Study Abroad 5	3	
GLOB6420039	Elective Course for Study Abroad 6	2	
GLOB6421039	Elective Course for Study Abroad 7	2	
GLOB6422039	Elective Course for Study Abroad 8	2	
GLOB6423039	Elective Course for Study Abroad 9	1	
GLOB6424039	Elective Course for Study Abroad 10	1	
GLOB6425039	Elective Course for Study Abroad 11	4	
GLOB6426039	Elective Course for Study Abroad 12	4	
GLOB6427039	Elective Course for Study Abroad 13	3	
GLOB6428039	Elective Course for Study Abroad 14	3	
GLOB6429039	Elective Course for Study Abroad 15	3	
GLOB6430039	Elective Course for Study Abroad 16	2	
GLOB6431039	Elective Course for Study Abroad 17	2	
GLOB6432039	Elective Course for Study Abroad 18	2	
GLOB6433039	Elective Course for Study Abroad 19	1	
GLOB6434039	Elective Course for Study Abroad 20	1	

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

**Certified Specific Independent Study Track**

**Enrichment Program I**

For students who take Specific Independent Study Track in the 6<sup>th</sup> semester, they should take these courses:

Code	Course Name	SCU
CSIS6037039	Course Certification	3
CSIS6038039	Technical Skill Enrichment	4
CSIS6039039	Industrial Project	9
CSIS6040039	Soft Skill Enrichment	4
CSIS6041039	Elective Course for Specific Independent Study 1	4
CSIS6042039	Elective Course for Specific Independent Study 2	4
CSIS6043039	Elective Course for Specific Independent Study 3	3
CSIS6044039	Elective Course for Specific Independent Study 4	3
CSIS6045039	Elective Course for Specific Independent Study 5	3
CSIS6046039	Elective Course for Specific Independent Study 6	2
CSIS6047039	Elective Course for Specific Independent Study 7	2
CSIS6048039	Elective Course for Specific Independent Study 8	2
CSIS6049039	Elective Course for Specific Independent Study 9	1
CSIS6050039	Elective Course for Specific Independent Study 10	1
CSIS6051039	Elective Course for Specific Independent Study 11	4
CSIS6052039	Elective Course for Specific Independent Study 12	4
CSIS6053039	Elective Course for Specific Independent Study 13	3
CSIS6054039	Elective Course for Specific Independent Study 14	3
CSIS6055039	Elective Course for Specific Independent Study 15	3
CSIS6056039	Elective Course for Specific Independent Study 16	2
CSIS6057039	Elective Course for Specific Independent Study 17	2
CSIS6058039	Elective Course for Specific Independent Study 18	2
CSIS6059039	Elective Course for Specific Independent Study 19	1
CSIS6060039	Elective Course for Specific Independent Study 20	1
CSIS6097039	Elective Course for Specific Independent Study 21	6
CSIS6098039	Elective Course for Specific Independent Study 22	6
CSIS6099039	Elective Course for Specific Independent Study 23	6
<b>Total SCU</b>		<b>20</b>

*\*) 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 23 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.*

### Enrichment Program II

For students who take Specific Independent Study track in the 7<sup>th</sup> semester, they should take these courses:

Code	Course Name	SCU
CSIS6037039	Course Certification	3
CSIS6038039	Technical Skill Enrichment	4
CSIS6039039	Industrial Project	9
CSIS6040039	Soft Skill Enrichment	4
CSIS6100039	Elective Course for Specific Independent Study 24	4
CSIS6101039	Elective Course for Specific Independent Study 25	4
CSIS6102039	Elective Course for Specific Independent Study 26	3

Code	Course Name	SCU
CSIS6103039	Elective Course for Specific Independent Study 27	3
CSIS6104039	Elective Course for Specific Independent Study 28	3
CSIS6105039	Elective Course for Specific Independent Study 29	2
CSIS6106039	Elective Course for Specific Independent Study 30	2
CSIS6107039	Elective Course for Specific Independent Study 31	2
CSIS6108039	Elective Course for Specific Independent Study 32	1
CSIS6109039	Elective Course for Specific Independent Study 33	1
CSIS6110039	Elective Course for Specific Independent Study 34	4
CSIS6111039	Elective Course for Specific Independent Study 35	4
CSIS6112039	Elective Course for Specific Independent Study 36	3
CSIS6113039	Elective Course for Specific Independent Study 37	3
CSIS6114039	Elective Course for Specific Independent Study 38	3
CSIS6115039	Elective Course for Specific Independent Study 39	2
CSIS6116039	Elective Course for Specific Independent Study 40	2
CSIS6117039	Elective Course for Specific Independent Study 41	2
CSIS6118039	Elective Course for Specific Independent Study 42	1
CSIS6119039	Elective Course for Specific Independent Study 43	1
CSIS6120039	Elective Course for Specific Independent Study 44	6
CSIS6121039	Elective Course for Specific Independent Study 45	6
CSIS6122039	Elective Course for Specific Independent Study 46	6
<b>Total SCU</b>		<b>20</b>

*\*) 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 24 to 46 are transferred courses for students who take certified specific independent study outside BINUS University. Transferred courses will be transferred based on credit transfer policies on study program with total of 20 credits.*

### Further Study Track

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

### Individual Development Project Track

Code	Course Name	SCU	Total SCU
ACCT6483039	Industrial Project Planning in Accounting and Finance	6	20
ACCT6484039	Industrial Project Implementation in Accounting and Finance	4	
ACCT6485039	Industrial Project Evaluation and Reporting in Accounting and Finance	6	
ACCT6486039	Business Ethics in Accounting and Finance Industry	4	

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

No.	Course Code	Course	SCU	Minimal Grade	Semester	Period
1	CHAR6019039	Character Building: Pancasila	2	B	1	2
2	ENPR6253039	Entrepreneurship	2	C	4	2

3	ACCT6430039	Financial Accounting II	4	C	3	1
4	ACCT6131039	Managerial Accounting	4	C	2	1
5	TAXN6032039	Taxation	4	C	2	1
6	ACCT6531039	Audit and Assurance	4/2	C	2	2
7	FINC6224039	Corporate Finance and Valuation	4	C	5	1
8	FINC6227039	Risk Management	4	C	5	2

## 1.11.8 Industrial Engineering

### Introduction

Industrial Engineering program is a branch of engineering that engages in the study of how to describe, evaluate, design, modify, control, and improve the performance of integrated systems of people, materials, and technology, viewed over time and within their relevant context. Industrial engineering is unique in its blend of fundamental topics in mathematics, physical and engineering sciences knowledge with the principles and methods of engineering analysis and design. This field identifies human being as central contributors to the inherent complexity of such systems. Globalization has opened up more doors for service industries worldwide, which leads to an increased demand for industrial engineers. The Industrial Engineering curriculum at BINUS UNIVERSITY is structured to adapt the movement of globalization and tailored to the needs of the globalized world.

Industrial Engineering program emphasizes the application of engineering fundamentals with a balanced treatment of theory, design, and experience. Computer applications are integrated throughout the curriculum. This program allows flexibility to its students to study certain topics in breadth and depth by offering Supply Chain Engineering. The specialization of Supply Chain Engineering covers how modern production and operations management techniques can respond to the pressures of the competitive global marketplace by integrating all activities in the supply chain, adding flexibility to the system and reducing production cost.

Some of the core courses require the students to not only having a full grasp of the theoretical aspects but also on how to implement them in a time study analysis. The Industrial Engineering facilities are well-equipped in the areas of engineering graphics, industrial engineering systems design, and human-machine integration. The laboratories are available for students to use during their study are but not limited to: Physics Lab, Manufacturing Process Lab, Technical Drawing Lab, Simulation Lab, Work Design, and Ergonomics Lab.

### Vision

Becoming a world class online learning industrial engineering study program in 2035 to fostering and empowering the society in building and serving the nation

### Mission

The mission of Distance Learning Program in Industrial Engineering is to contribute to the global community through the provision of world-class education by:

1. Developing excellent characters through holistic approach that meets global standards
2. Resolving the nation's issues in Industrial Engineering field study through high impact research

3. Fostering BINUSIAN as lifelong learners through self-enrichment in adapting to new system engineering and technology
4. Empowering BINUSIAN to continuously serve society-based needs through industrial engineering applied technology
5. Being the main driver to enrich the BINUS Higher Education system by using industrial knowledge and technology

### **Program Objective**

The objectives of the program are:

1. Utilize appropriate engineering design methods and tools that are principal to work beneficially within their professions & communities
2. Possess effective teamwork and leadership skills and commit to the standard of profession and ethical practice
3. Continuously develop oneself to meet the evolving demands and increasing responsibilities of a successful career, to benefit the organization and society

### **Student Outcomes**

After completing the study, graduates will have the following competencies an ability to:

1. Able to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
2. Able 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. Able to communicate effectively with a range of audiences.
4. Able 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 contexts.
5. Able 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. Able to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
7. Able to acquire and apply new knowledge as needed, using appropriate learning strategies .
8. Able to solve problems through the multidisciplinary approach

### **Prospective Career of the Graduates**

Industrial engineers are employed in manufacturing and service industries. Several career options for industrial engineers include, are but not limited to, the following:

1. Production/Operation Engineer
2. Quality Assurance Engineer
3. Supply Chain Engineer
4. Data Engineer
5. System Analyst
6. Product Specialist

7. Service Engineer
8. Maintenance Engineer

## Curriculum

Industrial Engineering Program is about designing, modifying, controlling, and improving complex systems. Therefore, a strong basis in the “queen of the sciences”, better known as mathematics, and computer science is a requirement in modeling and solving such complex systems. The Distance Learning Program in Industrial Engineering curriculum is structured in such a way that the students should master the following scientific fields: 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	STAT6174037	Probability Theory and Applied Statistics	4	20
	SCIE6091037	Physics	2/2	
	MATH6233037	Mathematics	4	
	SCIE6057037	Chemistry and Biology	4	
	ISYE6187037	Engineering Economy and System Analysis	4	
2	CHAR6019037	Character Building: Pancasila	2	20
	ISYE6328037	Human-Integrated Systems and Organizational Behaviour	2/2	
	ISYE6348037	Deterministic Optimization and Stochastic Processes	4/2	
	ISYE6329037	Systems Simulation and Engineering Data Analysis	4	
	LANG6031037	Indonesian	2	
	COSC6012037	Foundations of Artificial Intelligence	2	
3	CHAR6020037	Character Building: Kewarganegaraan	2	20
	MATH6216037	Calculus	4	
	ARCH6102037	Technical Drawing	2/2	
	ISYE6094037	Quality Engineering	4	
	ISYE6190037	Facility Planning and Safety Engineering	4	
	ISYE6087037	Introduction to Manufacturing Processes	4	
4	CHAR6021037	Character Building: Agama	2	20
	ISYE6330037	Production and Operation Analysis	2/2	
	ISYE6332037	Research Methodology and Experimental Design	4/2	
	ENPR6253037	Entrepreneurship	2	
	ENGL6163037	English Professional	4	
5	<b>Stream: Supply Chain Engineering</b>			20
	ISYE6333037	Supply Chain: Logistics and Transportation	4	
	ISYE6127037	Warehouse Management System	4	
	MGMT6560037	Leadership and Global Industrial Strategic	4	
	ISYE6095037	E-Supply Chain Management	2/2	
	ISYE6335037	Data Science for Supply Chain Analysis	4	

Sem	Code	Course Name	SCU	Total
<b>Stream: Industrial Manufacturing System</b>				
	ISYE6077037	Project Management	4	
	ISYE6194037	Environmental Engineering and Waste Management	4	
	MGMT6560037	Leadership and Global Industrial Strategic	4	
	ISYE6346037	Sustainable Manufacturing Systems	2/2	
	ISYE6347037	Maintenance Management System	4	
6	<b>Minor Program</b>			20
	<b>Free Electives</b>			
	<b>Enrichment Program I</b>			
7	<b>Free Electives</b>			20
	<b>Enrichment Program II</b>			
8	RSCH6692037	Pre Thesis	0	6
	RSCH6493037	Thesis	0	
	RSCH6687037	Pre Thesis	2	
	RSCH6688037	Thesis	4	
	RSCH6494037	Thesis	6	
<b>Total Credit 146 SCU</b>				

\*Semester 6: Students are required to choose Minor Program or Free Electives or Enrichment Program. See appendix for the details.

\*Semester 7: Students are required to choose Free Electives or Individual Development Project or one of enrichment program tracks. See appendix for the details.

\*Pre thesis (0 SCU) can be taken in the first period of the 6<sup>th</sup> semester, meanwhile pre thesis (2 SCU) can be taken in the second period of the 6<sup>th</sup> semester by the students who meet the requirements from the Study Program/Program. Then, thesis (0 SCU) can be taken in the first period of the 7<sup>th</sup> semester, meanwhile thesis (4 SCU) can be taken in the second period of the 7<sup>th</sup> semester by the students who meet the requirements from the Study Program/Program.

### Appendix: Minor Program Minor Scheme

Minor Program	Semester 6	
	1 <sup>st</sup> Period	2 <sup>nd</sup> Period
<b>Minor @ Binus Online Learning</b>		
Technopreneurship	V	v
Artificial Intelligence in Business	V	v

### Minor Program: Technopreneurship

Code	Course Name	SCU
ACCT6384039	Accounting for Small Medium Enterprise	4
MKTG6296038	Digital Marketing for Manager	4
ISYS6619035	UX for Digital Business	4
COMP6725036	Big Data Technologies	4
ISYE6196037	Industrial Feasibility Analysis	4

		<b>Total SCU</b>	<b>20</b>
<b>Minor Program: Artificial Intelligence in Business</b>			
<b>Code</b>	<b>Course Name</b>	<b>SCU</b>	
ISYS6776035	Managerial Support Systems	4	
ACCT6473039	Artificial Intelligence for Audit, Forensic Accounting, and Valuation	4	
COMP6936036	Machine Learning	4	
MGMT6483038	AI Marketing and Predicting Consumer Experiences	4	
ISYE6284037	Cognitive Ergonomics	4	
		<b>Total SCU</b>	<b>20</b>

### Appendix: Free Electives

#### Free Elective

For students who take free electives track in the 6<sup>th</sup> semester, the following is a list of courses that students can take for 20 credits.

<b>No</b>	<b>Study Program</b>	<b>Course Code</b>	<b>Course</b>	<b>SCU</b>	<b>Semester</b>
1	Management PJJ	MKTG6117038	Entrepreneurial Marketing	4	6
2	Management PJJ	ENTR6053038	Entrepreneurial Finance	4	6
3	Management PJJ	COMM6092038	Business Communication	4	6
4	Computer Science PJJ	COSC6023036	Artificial Intelligence	2/2	6
5	Industrial Engineering PJJ	ISYE6195037	Human Interaction in Service Systems	4	6
6	Industrial Engineering PJJ	ISYE6285037	Financial Engineering	4	6
7	Industrial Engineering PJJ	ISYE6286037	Market Research for Engineer	4	6
8	Industrial Engineering PJJ	ISYE6098037	Supply Chain Risk & Negotiation	4	6
9	Accounting PJJ	FINC6221039	Financial Management	2/2	6
10	Accounting PJJ	ACCT6525039	Strategic Management Accounting	4	6
11	Information Systems PJJ	ISYS6701035	User Experience Research and Design	4	6
12	Information Systems PJJ	ISYS6878035	Data Modelling and Analytics	4	6
13	Information Systems PJJ	ISYS6877035	IT Governance and Security	4	6
14	Information Systems PJJ	ISYS6321035	Technology & Infrastructure of e-Business	4	6

For students who take free electives track in the 7<sup>th</sup> semester, the following is a list of courses that students can take for 20 credits.

<b>No</b>	<b>Study Program</b>	<b>Course Code</b>	<b>Course</b>	<b>SCU</b>	<b>Semester</b>
1	Management PJJ	ENPR6300038	Managing Entrepreneurial Organization and Leadership	4/2	7
2	Management PJJ	MGMT6563038	E-Marketing and E-CRM	4/2	7

3	Management PJJ	BUSS6049038	Managing Innovation	4	7
4	Management PJJ	MGMT6553038	Digital Retail and Merchandising	4	7
5	Computer Science PJJ	COMP6941036	Data Mining for Business Analytics	4/2	7
6	Industrial Engineering PJJ	ISYE6287037	Industry 4.0 and Implementation	4	7
7	Industrial Engineering PJJ	ISYE6288037	Smart Manufacturing	4	7
8	Industrial Engineering PJJ	ISYE6349037	Manufacturing Execution Systems	4/2	7
9	Industrial Engineering PJJ	ISYE6350037	Digital Simulation and Manufacturing System	4/2	7
10	Information Systems PJJ	ISYS6941035	Social Informatics	4/2	7

## Appendix: Enrichment

### Enrichment Track Scheme

Track scheme for semester 6 and 7. Student will take one of the tracks:

Enrichment Program Track									
Track	Semester 6	Semester 7							
	IS	IN	EN	RS	CD	SA	IS	FS	IDP
1	v	v							
2	v		v						
3	v			v					
4	v				v				
5	v					v			
6	v						v		
7	v								v

Students in semester 6 who take minor program or free electives, in semester 7 can take the enrichment track as follows:

Track	Enrichment Program Track								
	Semester 7								
	IN	EN	RS	CD	SA	IS	FS	IDP	
1	v								
2		v							
3			v						
4				v					
5					v				
6						v			

7							v*	
8								v

\*) Regarding the implementation of the Further Study enrichment track as illustrated on the table above, if students wish to choose the Further Study track in semester 7, then their choice in semester 6 must be the Minor Program or Free Electives

**Note:**

IN	: Certified Internship
EN	: Certified Entrepreneurship
RS	: Certified Research
CD	: Certified Community Development
SA	: Certified Study Abroad
FS	: Further Study
IS	: Certified Specific Independent Study
IDP	: Certified Individual Development Project

**Certified Internship Track**

Code	Course Name	SCU	Total SCU
ISYE6221037	Working Experience in Industrial Engineering	6	20
ISYE6222037	Industrial Engineering in Practice	4	
ISYE6224037	Industrial Experience in Industrial Engineering	6	
ISYE6223037	Employability and Entrepreneurial Skills in Industrial Engineering Industry	4	

**Certified Entrepreneurship Track**

Code	Course Name	SCU	Total SCU
ENPR6041037	Business Start Up in Industrial Engineering	6	20
ENPR6042037	Business Model & Validation in Industrial Engineering	4	
ENPR6043037	Launching New Venture in Industrial Engineering	6	
ENPR6044037	Entrepreneurship and Managing New Business in Industrial Engineering	4	

**Certified Research Track**

Code	Course Name	SCU	Total SCU
RSCH6683037	Industrial Engineering Research Experience	6	20
RSCH6684037	Scientific Writing in Industrial Engineering Research	4	
RSCH6685037	Academic Writing for Industrial Engineering Research	6	
RSCH6686037	Global Employability and Entrepreneurial Skills in Industrial Engineering Research	4	

**Certified Community Development Track**

Code	Course Name	SCU	Total SCU
CMDV6450037	Community Development Project Implementation in Industrial Engineering	6	20
CMDV6451037	Community Development Project Design in Industrial Engineering	4	

CMDV6452037	Industrial Engineering Program Execution for Community	6
CMDV6453037	Employability and Entrepreneurial Skills in Industrial Engineering Community	4

**Certified Study Abroad Track**

Code	Course Name	SCU	Total SCU
GLOB6415037	Elective Course for Study Abroad 1	4	20
GLOB6416037	Elective Course for Study Abroad 2	4	
GLOB6417037	Elective Course for Study Abroad 3	3	
GLOB6418037	Elective Course for Study Abroad 4	3	
GLOB6419037	Elective Course for Study Abroad 5	3	
GLOB6420037	Elective Course for Study Abroad 6	2	
GLOB6421037	Elective Course for Study Abroad 7	2	
GLOB6422037	Elective Course for Study Abroad 8	2	
GLOB6423037	Elective Course for Study Abroad 9	1	
GLOB6424037	Elective Course for Study Abroad 10	1	
GLOB6425037	Elective Course for Study Abroad 11	4	
GLOB6426037	Elective Course for Study Abroad 12	4	
GLOB6427037	Elective Course for Study Abroad 13	3	
GLOB6428037	Elective Course for Study Abroad 14	3	
GLOB6429037	Elective Course for Study Abroad 15	3	
GLOB6430037	Elective Course for Study Abroad 16	2	
GLOB6431037	Elective Course for Study Abroad 17	2	
GLOB6432037	Elective Course for Study Abroad 18	2	
GLOB6433037	Elective Course for Study Abroad 19	1	
GLOB6434037	Elective Course for Study Abroad 20	1	

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

**Certified Specific Independent Study Track  
 Enrichment Program I**

Code	Course Name	SCU
CSIS6037037	Course Certification	3
CSIS6038037	Technical Skill Enrichment	4
CSIS6039037	Industrial Project	9
CSIS6040037	Soft Skill Enrichment	4
CSIS6041037	Elective Course for Specific Independent Study 1	4
CSIS6042037	Elective Course for Specific Independent Study 2	4
CSIS6043037	Elective Course for Specific Independent Study 3	3
CSIS6044037	Elective Course for Specific Independent Study 4	3
CSIS6045037	Elective Course for Specific Independent Study 5	3
CSIS6046037	Elective Course for Specific Independent Study 6	2

Code	Course Name	SCU
CSIS6047037	Elective Course for Specific Independent Study 7	2
CSIS6048037	Elective Course for Specific Independent Study 8	2
CSIS6049037	Elective Course for Specific Independent Study 9	1
CSIS6050037	Elective Course for Specific Independent Study 10	1
CSIS6051037	Elective Course for Specific Independent Study 11	4
CSIS6052037	Elective Course for Specific Independent Study 12	4
CSIS6053037	Elective Course for Specific Independent Study 13	3
CSIS6054037	Elective Course for Specific Independent Study 14	3
CSIS6055037	Elective Course for Specific Independent Study 15	3
CSIS6056037	Elective Course for Specific Independent Study 16	2
CSIS6057037	Elective Course for Specific Independent Study 17	2
CSIS6058037	Elective Course for Specific Independent Study 18	2
CSIS6059037	Elective Course for Specific Independent Study 19	1
CSIS6060037	Elective Course for Specific Independent Study 20	1
CSIS6097037	Elective Course for Specific Independent Study 21	6
CSIS6098037	Elective Course for Specific Independent Study 22	6
CSIS6099037	Elective Course for Specific Independent Study 23	6
<b>Total SCU</b>		<b>20</b>

*\*) 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 23 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.*

### Enrichment Program II

For students who take Specific Independent Study track in the 7<sup>th</sup> semester, they should take these courses:

Code	Course Name	SCU
CSIS6037037	Course Certification	3
CSIS6038037	Technical Skill Enrichment	4
CSIS6039037	Industrial Project	9
CSIS6040037	Soft Skill Enrichment	4
CSIS6100037	Elective Course for Specific Independent Study 24	4
CSIS6101037	Elective Course for Specific Independent Study 25	4
CSIS6102037	Elective Course for Specific Independent Study 26	3
CSIS6103037	Elective Course for Specific Independent Study 27	3
CSIS6104037	Elective Course for Specific Independent Study 28	3
CSIS6105037	Elective Course for Specific Independent Study 29	2
CSIS6106037	Elective Course for Specific Independent Study 30	2
CSIS6107037	Elective Course for Specific Independent Study 31	2
CSIS6108037	Elective Course for Specific Independent Study 32	1
CSIS6109037	Elective Course for Specific Independent Study 33	1
CSIS6110037	Elective Course for Specific Independent Study 34	4
CSIS6111037	Elective Course for Specific Independent Study 35	4
CSIS6112037	Elective Course for Specific Independent Study 36	3

Code	Course Name	SCU
CSIS6113037	Elective Course for Specific Independent Study 37	3
CSIS6114037	Elective Course for Specific Independent Study 38	3
CSIS6115037	Elective Course for Specific Independent Study 39	2
CSIS6116037	Elective Course for Specific Independent Study 40	2
CSIS6117037	Elective Course for Specific Independent Study 41	2
CSIS6118037	Elective Course for Specific Independent Study 42	1
CSIS6119037	Elective Course for Specific Independent Study 43	1
CSIS6120037	Elective Course for Specific Independent Study 44	6
CSIS6121037	Elective Course for Specific Independent Study 45	6
CSIS6122037	Elective Course for Specific Independent Study 46	6
<b>Total SCU</b>		<b>20</b>

\*) 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 24 to 46 are transferred courses for students who take certified specific independent study outside BINUS University. Transferred courses will be transferred based on credit transfer policies on study program with total of 20 credits.

### Further Study Track

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

### Individual Development Project Track

Code	Course Name	SCU	Total SCU
ISYE6292037	Industrial Project Planning in Industrial Engineering	6	20
ISYE6293037	Industrial Project Implementation in Industrial Engineering	4	
ISYE6294037	Industrial Project Evaluation and Reporting in Industrial Engineering	6	
ISYE6295037	Business Ethics in Industrial Engineering Industry	4	

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

No.	Course Code	Course	SCU	Minimal Grade	Semester	Period
1	CHAR6019037	Character Building: Pancasila	2	B	2	1
2	ENTR6081037	Entrepreneurship	4	C	2	2
3	ISYE6189037	Deterministic Optimization & Stochastic Processes	6	C	3	2
4	ISYE6188037	Human-Integrated Systems	3/1	C	3	1
5	ISYE6094037	Quality Engineering	4	C	4	1
6	ISYE6096037	Production & Operation Analysis	4/2	C	5	1
<b>Stream: Supply Chain Engineering</b>						
7	ISYE6090037	Supply Chain: Logistics	4	C	5	2
8	ISYE6236037	E-Supply Chain Management	3/1	C	5	2
<b>Stream: Industrial Manufacturing System</b>						
7	ISYE6077037	Project Management	4	C	5	2

8	ISYE6237037	Sustainable Manufacturing Systems	3/1	C	5	2
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## 1.11.9 Information Systems

### Introduction

In this internet-of-everything era, positioning of information systems in businesses has changed from secondary needs to primary one. A good investment of technology in a business might give many positive contributions to the company in winning the competitions. Technology couldn't be successfully implemented alone by itself; its implementation should be supported along with a readiness of new business process and also people aspect of the company, which the students will learn about these in the Information Systems study program. In this study program, students will also learn how to supply the business needs with a suitable development, utilization, and investment of information systems.

### Vision

Becoming a world class online learning study program that provides a higher education in information systems area, specialized in Business-IT.

### Mission

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

1. Educating students in information systems that covers knowledge and skills in information systems development for improving business process and creating innovative information systems solutions through online learning processes that meets global standards.
2. Nurturing BINUSIAN in research activities by creating a suitable academic atmosphere.
3. Fostering BINUSIAN as lifelong learners through self-enrichment in information systems
4. Empowering communities through applied research and information systems solutions in society

### Program Objective

The objectives of the program:

1. To provide students with solid foundation of information systems development skills and knowledge as professionals in information systems
2. Collaboratively to conduct high-impact research in information systems
3. To provide opportunities for lecturers and alumnae in self-development and pursuing further studies in information systems
4. To apply information systems solutions in society through community and professional services

### Student Outcomes

After completing the study, graduates are:

1. Able to identify and apply basic concepts in information system planning.
2. Able to identify needs and propose alternative solutions in the development of information systems.
3. Able to build information system projects to meet organizational needs.

4. Integrate information system solutions effectively in an organization .
5. Able to formulate needs and propose digital business models by paying attention to business supporting aspects.
6. Able to develop visual interface designs according to user needs and user experience principles
7. Able to solve problems through the multidisciplinary approach .

### Prospective Career of the Graduates

With the above-mentioned skills and knowledge, the Information Systems graduate is able to follow a career in:

1. Business/System Analyst
2. System/Software Developer
3. Data Engineer
4. IS/IT Consultants
5. Project Leader
6. Technopreneur
7. UX Designer

### Curriculum

The Information Systems curriculum is designed and referred to the curriculum recommended by ACM and AIS, IS 2002 (Model curriculum and guidelines for undergraduate degree program in Information Systems), IS 2010 (Curriculum guidelines for undergraduate degree program in Information Systems), Computing Curricula 2005 and A Cooperative Project of ACM, AIS, IEEE-CS. In addition, the curriculum has been influenced by foreign universities with a reputation for quality Information Systems Study Programs.

### Course Structure

Sem	Code	Course Name	SCU	Total
1	ISYS6307035	Data and Information Management	4	20
	ISYS6935035	Enterprise Business Process	4	
	ISYS6699035	Information Systems Analysis and Design	4	
	ISYS6878035	Data Modelling and Analytics	4	
	ISYS6879035	Information Systems Management, Planning and Innovation	4	
2	CHAR6019035	Character Building: Pancasila	2	20
	ISYS6310035	Information Systems Project Management	4	
	ISYS6318035	E-Business Concept	4	
	ISYS6877035	IT Governance and Security	4	
	ISYS6516035	Information System Security	4	
	COSC6012035	Foundations of Artificial Intelligence	2	
3	CHAR6020035	Character Building: Kewarganegaraan	2	20
	ISYS6940035	Business Process Management	4/2	
	COSC6047035	Introduction to Programming for Business	4	
	ISYS6319035	Knowledge Management	4	
	LANG6031035	Indonesian	2	

	ENPR6253035	Entrepreneurship	2	
4	CHAR6021035	Character Building: Agama	2	20
	ISYS6700035	Technology Infrastructure and System Implementation	4	
	ISYS6876035	Research and Project in Information Systems	4/2	
	ISYS6701035	User Experience Research and Design	4	
	ENGL6163035	English Professional	4	
5	<b>Stream: Digital Business Transformation</b>			20
	ISYS6703035	Digital Business Analysis	4	
	ISYS6704035	Digital and New Media	4	
	ISYS6705035	Digital Business Design	4	
	ISYS6706035	Digital Business Transformation	4	
	ISYS6707035	Digital Marketing	4	
	<b>Stream: Interactive User Research Design</b>			
	DSIN6049035	Visual Design Principles	4	
	ISYS6880035	User Experience for Content Strategy	4	
	ISYS6881035	Diagramming and Prototyping for User Experience	4	
	ISYS6882035	User Experience Research and Visual Design	4	
ISYS6883035	Essentials of User Experience for Interactive Design	4		
6	<b>Minor Program</b>			20
	<b>Free Electives</b>			
	<b>Enrichment Program I</b>			
7	<b>Free Electives</b>			20
	<b>Enrichment Program II</b>			
8	ISYS6377035	Thesis	0	6
	ISYS6327035	Thesis	6	
<b>Total Credit 146 SCU</b>				

\*Semester 6: Students are required to choose Minor Program or Free Electives or Enrichment Program. See appendix for the details.

\*Semester 7: Students are required to choose Free Electives or Individual Development Project or one of enrichment program tracks. See appendix for the details.

\***Pre thesis (0 SCU)** can be taken in the first period of the 6<sup>th</sup> semester, meanwhile **pre thesis (2 SCU)** can be taken in the second period of the 6<sup>th</sup> semester by the students who meet the requirements from the Study Program/Program. Then, **thesis (0 SCU)** can be taken in the first period of the 7<sup>th</sup> semester, meanwhile **thesis (4 SCU)** can be taken in the second period of the 7<sup>th</sup> semester by the students who meet the requirements from the Study Program/Program.

## Appendix: Minor Program

### Minor Scheme

Minor Program	Semester 6	
	1 <sup>st</sup> Period	2 <sup>nd</sup> Period
<b>Minor @ Binus Online Learning</b>		
Technopreneurship	v	v
Artificial Intelligence in Business	v	v

### Minor Program: Technopreneurship

Code	Course Name	SCU
ACCT6384039	Accounting for Small Medium Enterprise	4
MKTG6296038	Digital Marketing for Manager	4
ISYS6619035	UX for Digital Business	4
COMP6725036	Big Data Technologies	4
ISYE6196037	Industrial Feasibility Analysis	4
<b>Total SCU</b>		<b>20</b>

**Minor Program: Artificial Intelligence in Business**

Code	Course Name	SCU
ISYS6776035	Managerial Support Systems	4
ACCT6473039	Artificial Intelligence for Audit, Forensic Accounting, and Valuation	4
COMP6936036	Machine Learning	4
MGMT6483038	AI Marketing and Predicting Consumer Experiences	4
ISYE6284037	Cognitive Ergonomics	4
<b>Total SCU</b>		<b>20</b>

**Appendix: Free Electives**

**Free Elective**

For students who take free electives track in the 6<sup>th</sup> semester, the following is a list of courses that students can take for 20 credits

No	Study Program	Course Code	Course	SCU	Semester
1	Management PJJ	ECON6095038	Business Economics	4	6
2	Management PJJ	MGMT6448038	Operations Management	4	6
3	Management PJJ	MKTG6117038	Entrepreneurial Marketing	4	6
4	Management PJJ	ENTR6053038	Entrepreneurial Finance	4	6
5	Management PJJ	COMM6092038	Business Communication	4	6
6	Management PJJ	MGMT6552038	Digital Logistic	4	6
7	Management PJJ	MGMT6551038	Ethics and Leadership in Digital Business	4	6
8	Computer Science PJJ	COSC6023036	Artificial Intelligence	2/2	6
9	Computer Science PJJ	COMP6721036	Mobile Programming	4	6
10	Computer Science PJJ	COMP6621036	Web Programming	4	6
11	Computer Science PJJ	COMP6617036	Cloud Computing	4	6
12	Industrial Engineering PJJ	ISYE6195037	Human Interaction in Service Systems	4	6
13	Industrial Engineering PJJ	ISYE6285037	Financial Engineering	4	6
14	Industrial Engineering PJJ	ISYE6098037	Supply Chain Risk & Negotiation	4	6
15	Accounting PJJ	FINC6221039	Financial Management	2/2	6

No	Study Program	Course Code	Course	SCU	Semester
16	Accounting PJJ	ACCT6130039	Cost Accounting	4	6
17	Information Systems PJJ	ISYS6599035	Management Information Systems for Leader	4	6
18	Information Systems PJJ	ISYS6321035	Technology & Infrastructure of e-Business	4	6

For students who take free electives track in the 7<sup>th</sup> semester, the following is a list of courses that students can take for 20 credits.

No	Study Program	Course Code	Course	SCU	Semester
1	Management PJJ	ENPR6300038	Managing Entrepreneurial Organization and Leadership	4/2	7
2	Management PJJ	MGMT6563038	E-Marketing and E-CRM	4/2	7
3	Management PJJ	MGMT6162038	Change Management	4	7
4	Management PJJ	BUSS6049038	Managing Innovation	4	7
5	Management PJJ	MGMT6553038	Digital Retail and Merchandising	4	7
6	Management PJJ	MGMT6554038	Digital Economy	4	7
7	Computer Science PJJ	COMP6277036	Geographic Information System	2/2	7
8	Computer Science PJJ	COMP6941036	Data Mining for Business Analytics	4/2	7
9	Computer Science PJJ	COMP6311036	Object Oriented Programming	4	7
10	Industrial Engineering PJJ	ISYE6287037	Industry 4.0 and Implementation	4	7
11	Industrial Engineering PJJ	ISYE6288037	Smart Manufacturing	4	7
12	Industrial Engineering PJJ	ISYE6350037	Digital Simulation and Manufacturing System	4/2	7
13	Accounting PJJ	ACCT6532039	International Accounting	4/2	7
14	Information Systems PJJ	ISYS6941035	Social Informatics	4/2	7

## Appendix: Enrichment

### Enrichment Track Scheme

Track scheme for semester 6 and 7. Student will take one of the tracks:

Enrichment Program Track									
Track	Semester 6		Semester 7						
	IS	IN	EN	RS	CD	SA	IS	FS	IDP
1	v	v							
2	v		v						
3	v			v					
4	v				v				
5	v					v			

6	v						v		
7	v								v

Students in semester 6 who take minor program or free electives, in semester 7 can take the enrichment track as follows:

Track	Enrichment Program Track							
	Semester 7							
	IN	EN	RS	CD	SA	IS	FS	IDP
1	v							
2		v						
3			v					
4				v				
5					v			
6						v		
7							v*	
8								v

*\*) Regarding the implementation of the Further Study enrichment track as illustrated on the table above, if students wish to choose the Further Study track in semester 7, then their choice in semester 6 must be the Minor Program or Free Electives*

**Note:**

- IN : Certified Internship
- EN : Certified Entrepreneurship
- RS : Certified Research
- CD : Certified Community Development
- SA : Certified Study Abroad
- FS : Further Study
- IS : Certified Specific Independent Study
- IDP : Certified Individual Development Project

**Certified Internship Track**

Code	Course Name	SCU	Total SCU
ISYS6648035	Working Experience in Information Systems	6	20
ISYS6649035	Information Systems in Practice	4	
ISYS6651035	Industrial Experience in Information Systems	6	
ISYS6650035	Employability and Entrepreneurial Skills in Information Systems Industry	4	

**Certified Entrepreneurship Track**

Code	Course Name	SCU	Total SCU
ENPR6017035	Business Start Up in Information Systems	6	20
ENPR6018035	Business Model & Validation in Information Systems	4	
ENPR6019035	Launching New Venture in Information Systems	6	
ENPR6020035	Entrepreneurship and Managing New Business in Information Systems	4	

**Certified Research Track**

Code	Course Name	SCU	Total SCU
RSCH6675035	Information Systems Research Experience	6	20
RSCH6676035	Scientific Writing in Information Systems Research	4	
RSCH6677035	Academic Writing for Information Systems Research	6	
RSCH6678035	Global Employability and Entrepreneurial Skills in Information Systems Research	4	

**Certified Community Development Track**

Code	Course Name	SCU	Total SCU
CMDV6442035	Community Development Project Implementation in Information Systems	6	20
CMDV6443035	Community Development Project Design in Information Systems	4	
CMDV6444035	Information Systems Program Execution for Community	6	
CMDV6445035	Employability and Entrepreneurial Skills in Information Systems Community	4	

**Certified Study Abroad Track**

Code	Course Name	SCU	Total SCU
GLOB6415035	Elective Course for Study Abroad 1	4	20
GLOB6416035	Elective Course for Study Abroad 2	4	
GLOB6417035	Elective Course for Study Abroad 3	3	
GLOB6418035	Elective Course for Study Abroad 4	3	
GLOB6419035	Elective Course for Study Abroad 5	3	
GLOB6420035	Elective Course for Study Abroad 6	2	
GLOB6421035	Elective Course for Study Abroad 7	2	
GLOB6422035	Elective Course for Study Abroad 8	2	
GLOB6423035	Elective Course for Study Abroad 9	1	
GLOB6424035	Elective Course for Study Abroad 10	1	
GLOB6425035	Elective Course for Study Abroad 11	4	
GLOB6426035	Elective Course for Study Abroad 12	4	
GLOB6427035	Elective Course for Study Abroad 13	3	
GLOB6428035	Elective Course for Study Abroad 14	3	
GLOB6429035	Elective Course for Study Abroad 15	3	
GLOB6430035	Elective Course for Study Abroad 16	2	
GLOB6431035	Elective Course for Study Abroad 17	2	
GLOB6432035	Elective Course for Study Abroad 18	2	
GLOB6433035	Elective Course for Study Abroad 19	1	
GLOB6434035	Elective Course for Study Abroad 20	1	

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

**Certified Specific Independent Study Track  
 Enrichment Program I**

Code	Course Name	SCU
CSIS6037035	Course Certification	3
CSIS6038035	Technical Skill Enrichment	4
CSIS6039035	Industrial Project	9
CSIS6040035	Soft Skill Enrichment	4
CSIS6041035	Elective Course for Specific Independent Study 1	4
CSIS6042035	Elective Course for Specific Independent Study 2	4
CSIS6043035	Elective Course for Specific Independent Study 3	3
CSIS6044035	Elective Course for Specific Independent Study 4	3
CSIS6045035	Elective Course for Specific Independent Study 5	3
CSIS6046035	Elective Course for Specific Independent Study 6	2
CSIS6047035	Elective Course for Specific Independent Study 7	2
CSIS6048035	Elective Course for Specific Independent Study 8	2
CSIS6049035	Elective Course for Specific Independent Study 9	1
CSIS6050035	Elective Course for Specific Independent Study 10	1
CSIS6051035	Elective Course for Specific Independent Study 11	4
CSIS6052035	Elective Course for Specific Independent Study 12	4
CSIS6053035	Elective Course for Specific Independent Study 13	3
CSIS6054035	Elective Course for Specific Independent Study 14	3
CSIS6055035	Elective Course for Specific Independent Study 15	3
CSIS6056035	Elective Course for Specific Independent Study 16	2
CSIS6057035	Elective Course for Specific Independent Study 17	2
CSIS6058035	Elective Course for Specific Independent Study 18	2
CSIS6059035	Elective Course for Specific Independent Study 19	1
CSIS6060035	Elective Course for Specific Independent Study 20	1
CSIS6097035	Elective Course for Specific Independent Study 21	6
CSIS6098035	Elective Course for Specific Independent Study 22	6
CSIS6099035	Elective Course for Specific Independent Study 23	6
<b>Total SCU</b>		<b>20</b>

*\*) 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 23 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.*

**Enrichment Program II**

For students who take Specific Independent Study track in the 7<sup>th</sup> semester, they should take these courses:

Code	Course Name	SCU
CSIS6037035	Course Certification	3
CSIS6038035	Technical Skill Enrichment	4
CSIS6039035	Industrial Project	9
CSIS6040035	Soft Skill Enrichment	4
CSIS6100035	Elective Course for Specific Independent Study 24	4
CSIS6101035	Elective Course for Specific Independent Study 25	4
CSIS6102035	Elective Course for Specific Independent Study 26	3

Code	Course Name	SCU
CSIS6103035	Elective Course for Specific Independent Study 27	3
CSIS6104035	Elective Course for Specific Independent Study 28	3
CSIS6105035	Elective Course for Specific Independent Study 29	2
CSIS6106035	Elective Course for Specific Independent Study 30	2
CSIS6107035	Elective Course for Specific Independent Study 31	2
CSIS6108035	Elective Course for Specific Independent Study 32	1
CSIS6109035	Elective Course for Specific Independent Study 33	1
CSIS6110035	Elective Course for Specific Independent Study 34	4
CSIS6111035	Elective Course for Specific Independent Study 35	4
CSIS6112035	Elective Course for Specific Independent Study 36	3
CSIS6113035	Elective Course for Specific Independent Study 37	3
CSIS6114035	Elective Course for Specific Independent Study 38	3
CSIS6115035	Elective Course for Specific Independent Study 39	2
CSIS6116035	Elective Course for Specific Independent Study 40	2
CSIS6117035	Elective Course for Specific Independent Study 41	2
CSIS6118035	Elective Course for Specific Independent Study 42	1
CSIS6119035	Elective Course for Specific Independent Study 43	1
CSIS6120035	Elective Course for Specific Independent Study 44	6
CSIS6121035	Elective Course for Specific Independent Study 45	6
CSIS6122035	Elective Course for Specific Independent Study 46	6
<b>Total SCU</b>		<b>20</b>

\*) 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 24 to 46 are transferred courses for students who take certified specific independent study outside BINUS University. Transferred courses will be transferred based on credit transfer policies on study program with total of 20 credits.

### Further Study Track

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

### Individual Development Project Track

Code	Course Name	SCU	Total SCU
ISYS6786035	Industrial Project Planning in Information Systems	6	20
ISYS6787035	Industrial Project Implementation in Information Systems	4	
ISYS6788035	Industrial Project Evaluation and Reporting in Information Systems	6	
ISYS6789035	Business Ethics in Information Systems Industry	4	

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

No.	Course Code	Course	SCU	Minimal Grade	Semester	Period
1	CHAR6019035	Character Building: Pancasila	2	B	2	1
2	ENPR6253035	Entrepreneurship	2	C	3	1

3	ISYS6307035	Data and Information Management	4	C	1	1
4	ISYS6935035	Enterprise Business Process	4	C	1	1
5	ISYS6699035	Information Systems Analysis and Design	4	C	1	2
6	ISYS6310035	Information Systems Project Management	4	C	2	1
<b>Stream: Digital Business Transformation</b>						
7	ISYS6705035	Digital Business Design	4	C	5	1
8	ISYS6706035	Digital Business Transformation	4	C	5	2
<b>Stream: Interactive User Research Design</b>						
7	ISYS6880035	User Experience for Content Strategy	4	C	5	1
8	ISYS6883035	Essentials of User Experience for Interactive Design	4	C	5	2

## 1.12 Course Description

### **SUBJECT AREA: ACCT**

#### **ACCT6130039- COST ACCOUNTING (4 Credits)**

**Learning Outcomes:** Understanding management accounting, cost terms and purposes; Calculate Cost Volume Profit and Job Costing Analysis; Calculate Activity Based Costing, Inventory Costing and Capacity Analysis; Analyze relevant information, pricing decision and cost management.; Analyze cost allocation, allocation support cost, spoilage, rework and Scrap.

**Topics:** Activity Based Costing and Activity Based Management; Allocation of Support Department Costs, Common Costs and Revenues; Cost Allocation, Customer Profitability Analysis, and Sales Variance Analysis; Cost-Volume-Profit Analysis; Decision making and Relevant Information; Inventory Costing and Capacity Analysis; Job Costing; Management Accounting and Introduction to Cost Terms and Purposes; Pricing Decision and Cost Management; Spoilage, Rework, and Scrap

#### **ACCT6131039- MANAGERIAL ACCOUNTING (4 Credits)**

**Learning Outcomes:** Describe the role of management accountants in an organization and cost concept; Calculate cost behavior, job order costing, process costing, cost volume profit relationship and variable costing.; Prepare master budget, flexible budget dan Balanced ScoreCard; Analyze Differential Cost for decision making

**Topics:** Activity-Based Costing: A Tool to Aid Decision Making; Cost-Volume-Profit Relationship; Differential Analysis: The Key to Decision Making; Flexible Budgets and Performance Analysis; Job-Order Costing; Managerial Accounting and Cost Concepts; Master Budgeting; Process Costing; Strategic Performance Measurement; Variable Costing: A Tool for Management

#### **ACCT6187039- THESIS (6 Credits)**

**Learning Outcomes:** Interpret research result into management decision recommendations; Demonstrate effective writing and communication skills to present research results

**Topics:** Data collection methods: Interview & Data collection methods: Questionnaires; Elements of research design & Measurement of variables: Operational definition; Introduction to Research & The scientific approach and alternative approaches to investigation; Measurement: Scaling, reliability, validity; Qualitative data analysis & Research report; Quantitative data analysis & Quantitative data analysis: Hypothesis testing; Sampling & Data

collection methods: Observation;The broad problem area and defining the problem statement;The Critical Literature Review; Theoretical framework and hypothesis development

#### **ACCT6193039- RESEARCH METHODOLOGY IN ACCOUNTING AND FINANCE (4 Credits)**

**Learning Outcomes:** Explain the concepts of research methodology and its elements, such as problem statement, literature review, conceptual framework, research variables and hypotheses development; Differentiate the qualitative and quantitative approach; Design research and hypothesis development; Explain the process of data collection and analysis; Prepare research proposal for quantitative and/or qualitative research approach.,

**Topics:** Data collection methods: Interview & Data collection methods: Questionnaires;Elements of research design & Measurement of variables: Operational definition;Introduction to Research & The scientific approach and alternative approaches to investigation;Measurement: Scaling, reliability, validity;Qualitative data analysis & Research report;Quantitative data analysis & Quantitative data analysis: Hypothesis testing;Sampling & Data collection methods: Observation;The broad problem area and defining the problem statement;The Critical Literature Review;Theoretical framework and hypothesis development

#### **ACCT6338039- RISK AND INTERNAL CONTROL (4 Credits)**

**Learning Outcomes:** Explain basic concept of Risk, Governance, and Internal Control; Analyze implementation and importance of Enterprise Risk Management (ERM), strong governance, and Compliance Issues Today; Explain Concept of Corporate Culture and Risk Portfolio Management, Information Technology, Industry 4.0 and Enterprise Risk Management; Plan Establishment an Effective GRC concept and ERM into Company

**Topics:** Introduction to Enterprise Risk Management; Importance of Governance, Risk and Compliance (GRC) Principles; Risk Management Fundamental; The COSO ERM Framework; Enterprise Compliance Issues Today; Investment Market, Liquidity and Systemic Risk; Integrating ERM with COSO Internal Control; Corporate Culture and Risk Portfolio Management; Role of Internal Audit in Enterprise Governance Risk and Compliance; Information Technology, Industry 4.0 and Enterprise Risk Management

#### **ACCT6363038- ACCOUNTING FOR BUSINESS (4 Credits)**

**Learning Outcomes:** Explain the accounting concept and principle, the role of accounting information in business and business structure;Apply the step for preparing financial reports, consisting of statement of financial position, statement of profit or loss, statement of change in equity and statement of cash flow and analysis of financial statements;Explain the management accounting concepts and budgeting for planning and control;Explain the cost concepts, cost – volume profit analysis, costing and pricing as a tools of decision making process;Explain the concept of performance measurement for evaluate organization's performance

**Topics:** Budgeting;Business Transaction; Completing the Accounting Cycle; Cost Volume Profit Analysis;Costing and Pricing; Introduction to Accounting in Business Decision Making & Business Structure; Performance Measurement;Statement of Cash Flows & Analysis of Financial Statements; Statement of Financial Position; Statement of Profit or Loss & Statement of Change in Equity

#### **ACCT6381039- ADVANCED ACCOUNTING (4 Credits)**

**Learning Outcomes:** Explain the concept of business combination, concept of control, and concept of group reporting; Prepare the consolidated financial statement using cost and complete equity methods; Apply consolidation principles of changes in ownership interest and trustee reporting

**Topics:** Introduction to Business Combinations and the Conceptual Framework; Accounting for Business Combinations; Consolidated Financial Statements - Date of Acquisition; Consolidated Financial Statements after Acquisition; Allocation and Depreciation of Differences between Implied and Book Values; Elimination of Unrealized Profit on Intercompany Sales and Inventory; Elimination of Unrealized Gains or Losses on Intercompany Sales of Property and Equipment; Intercompany Bond Holdings and Miscellaneous Topics - Consolidated Financial Statements; Changes in Ownership Interest; Insolvency – Liquidation and Reorganization

#### **ACCT6429039- FINANCIAL ACCOUNTING I (4 Credits)**

**Learning Outcomes:** Apply accounting principles and concepts in the process of preparing financial statements;Applying the concept of calculating the time value of money and the principles of recognizing and

disclosing cash and receivables;Apply the concept of calculating and disclosing inventory, fixed assets and intangible assets;Applying techniques for measuring and presenting current liabilities

**Topics:** Accounting and The Time Value of Money;Acquisition and Disposition of Property, Plant, and Equipment;Cash and Receivables;Current Liabilities, Provisions, and Contingencies;Depreciation, Impairments, and Depletion;Income Statement and Related Information;Intangible Assets;Inventories: A cost-Basis Approach and Additional Valuation Issues;The Accounting Information System

#### **ACCT6430039- FINANCIAL ACCOUNTING II (4 Credits)**

**Learning Outcomes:** Apply the concepts, measurement, and disclosure for Non-current Liabilities, Equity and Revenue Recognition according to International Financial Reporting Standards (IFRS) and Standar Akuntansi Keuangan (SAK);Apply the calculation and disclosure concepts of Dilutive Securities, Earnings per Share (EPS), and Investments according to International Financial Reporting Standards (IFRS) and Standar Akuntansi Keuangan (SAK);Apply the principle of recognition, measurement and presentation related to Income Tax, Pension, Post-retirement Benefits, and Leases according to International Financial Reporting Standards (IFRS) and Standar Akuntansi Keuangan (SAK);Apply the analysis technique of changes and error in financial statements, and present full disclosure in financial report according to International Financial Reporting Standards (IFRS) and Standar Akuntansi Keuangan (SAK)

**Topics:** Accounting for Income Taxes;Accounting for Leases;Accounting for Pensions and Post-Retirement Benefits;Dilutive Securities and Earnings per Share;Equity;Non-Current Liabilities;Reporting Accounting Changes and Error Analysis;Revenue Recognition

#### **ACCT6435039- INFORMATION SYSTEM AUDITING (4 Credits)**

**Learning Outcomes:** Define The information system based auditing, its controls and the key activities, and IT governance (COBIT Framework);Identify Security Audit: Database, Operating System and Network;Explain The use of CAATs for data extraction, gathering accounting data, testing application controls, performing substantive tests and analysing the data;Describe General controls, application controls, cycles associated with computer and artificial intelligence based business processes;Demonstrate Business ethics, fraud, and fraud detection using artificial intelligence

**Topics:** Auditing and Internal Control;Auditing Database Systems;Auditing IT Governance Controls;Auditing Operating Systems and Networks;Auditing the Expenditure Cycle Using Artificial Intelligence;Auditing the Revenue Cycle Using Artificial Intelligence;Business Ethics, Fraud and Fraud Detection Using Artificial Intelligence;Computer-Assisted Audit Tools and Techniques;Control Objective for Information Technology (COBIT);System Development and Program Change

#### **ACCT6436039- INTERNAL AUDIT (4 Credits)**

**Learning Outcomes:** Define internal auditing history and background, meaning of internal auditing and its mission;Explain Internal Audit in Relation with Risk Management;Describe Planning and Performing Internal Audits;Design Organizing and Managing Internal Audit Activities;Develop The Professional Internal Auditor

**Topics:** The Nature of Internal Audit;Professional Certification and Association/Community in Internal Auditing;An Internal Audit Common Body of Knowledge (CBOK);Internal Control;Enterprise Risk Management;Performing Effective Internal Audit;Standards for The Professional Practice of Internal Auditing;Internal Audit Charter;Managing Internal Audit Function;Internal Audit Practice Layout, Documentation, and Peer Review

#### **ACCT6438039- MANAGEMENT AUDIT (4 Credits)**

**Learning Outcomes:** Explain purpose, objectives and concept of management audit; Categorize each phase of management audit; Design overall management audit program; Assess findings based on economy, efficiency and effectiveness; Explain Corporate Governance Concept; Design overall management audit program for specific operation

**Topics:** Overview of Management Audit; Planning and Work Program Phase; Review of Management Control; Field Work Phase; ;Audit Working Papers; Development of Audit Findings and Reporting Phase; Overview of Corporate Governance; Management Audit of Human Resources; Management Audit of Marketing; Management Audit of Production and Operation.

#### **ACCT6439039- FORENSIC ACCOUNTING AND FRAUD EXAMINATION (4 Credits)**

**Learning Outcomes:** Define forensic accounting and fraud examination methodology; Identify problem regarding fraudulent scheme; Explain procedures to prevent and detect fraud including the use of IT; Recognize symptoms and fraud investigation method; Demonstrate techniques to reveal financial statement fraud; Illustrate resolution and legal follow up of fraud.

**Topics:** Introduction to Forensic Accounting; Who Commits Fraud and Why; Fraud Prevention; Recognizing the Symptoms of Fraud; Data Analytics for Fraud Detection; Fraud Investigation Methods; Financial Statement Fraud; Revenue, Inventory, Liability, Asset Related Financial Statement Fraud, and Inadequate Disclosure; Fraud Against Organization, Consumer Fraud; Bankruptcy, Divorce and Tax Fraud; Legal Follow-up

#### **ACCT6514039- ERP FINANCIAL ACCOUNTING & CONTROLLING (2/2 Credits)**

**Learning Outcomes:** Explain Enterprise Resource Planning (ERP) Concept in business process; Demonstrate Enterprise Resource Planning (ERP) implementation in Financial and Controlling Process using ERP Software; Analyze the implementation of Enterprise Resource Planning (ERP) Financial and Controlling for business decision-making

**Topics:** Business Function & Business Process and The Development of ERP Systems; Marketing Information Systems & Sales Order Process and Production & Supply Chain Management; Accounting in ERP Systems; Introduction Financial Controlling in ERP Systems; Opening Setup Account; Purchase Module; Sales Module; Inventory, Asset, Cash and Bank; General Ledger and Financial Statement; Financial Statement Analysis

#### **ACCT6516039- ACCOUNTING INFORMATION SYSTEM (4 Credits)**

**Learning Outcomes:** Explain basic concept of accounting information system; Create basic documentation to describe flow of information using Flowchart, Data Flow Diagram, and Business Process Diagram; Explain basic concept of Database; Analyze Internal control using COSO, COSO ERM and CoBiT; Create specific internal control for revenue, expenditure, production and HRM Cycle.

**Topics:** Accounting Information System: An Overview; Overview of Transaction Processing and ERP Systems; System Documentation Technique; Relational Database; Computer Fraud; Control and Accounting Information System; The Revenue Cycle: Sales to Cash Collections; The Expenditure Cycle: Purchasing to Cash Disbursement; The Production Cycle; The Human Resource Management and Payroll Cycle.

#### **ACCT6517039- DATA ANALYTICS AND VISUALIZATION FOR BUSINESS (0 Credits)**

**Learning Outcomes:** Define data analytics in business and accounting; Identify data used in the data analytics process; Explain the test plan and analyze the result; Demonstrate the result and illustrate data visualization; Perform financial statements and tax analytics.

**Topics:** Data Analytics for Accounting; Data Analytics Using IMPACT Cycle; Data Used and Stored; Performing The Test Plan; Standardizing Data for Comparison (Z-Score); Automating Data Analytics; Audit Data Analytics; Visualizing Financial Data; Tax Analysis; Financial Statement Analytics.

#### **ACCT6522039- FINANCIAL STATEMENT ANALYSIS (4 Credits)**

**Learning Outcomes:** Understand Financial Statement Analysis and Financial Reporting Standards; Apply Income Statement, Balance Sheet and Cash Flow Analysis; Apply Financial Analysis Techniques, Inventories, Long Live Asset, Non Current Liabilities; Apply applications of Financial Statement Analysis and Intercompany Investment .

**Topics:** Introduction to Financial Statement Analysis and Financial Reporting Standards; Understanding Income Statements; Understanding Balance Sheet; Understanding Cash Flow Statements; Financial Analysis Techniques; Inventory; Long-live Asset; Non Current (Long-term) Liabilities; Application of Financial Statements Analysis; Intercompany Investment

#### **ACCT6530039- INTRODUCTION TO ACCOUNTING (4/2 Credits)**

**Learning Outcomes:** Explain all steps in accounting cycle as the preparation of financial statement and understand formula and functions; Understand globalization and why the world's cultures, countries, and regions differ; Examine international issues related to ethics, corporate social responsibility, sustainability, International Trade Theory, and Foreign Direct Investment; Integrate the strategies and structures of international businesses

**Topics:** Accounting in Action and The Recording Process  
Adjusting The Accounts and Completing The Accounting Cycle

Accounting for Merchandising Operations & Inventories; Fraud, Internal Control, and Cash & Accounting for Receivable; Plant Asset, Natural Resources and Intangible Asset; Liabilities; Corporations: Organization, Share Transactions, Dividends, and Retained Earnings; Statement of Cash Flows; Financial Statement Analysis

**ACCT6531039- AUDIT AND ASSURANCE (4/2 Credits)**

**Learning Outcomes:** Explain the basic concepts of audit, corporate governance, and the role of auditors; Demonstrate Testing Control Techniques and Substantive Procedures with Assistance of Artificial Intelligence; Explain the Audit Completion Process, Audit Reporting, and Auditor Responsibilities; Apply Pre Engagement Procedures, Risk Assessment, and Risk Response Effectively; Apply Completing and Reporting the Audit Procedures Effectively

**Topics:** Auditing and Governance; Financial report Audit; Ethics and Client Evaluation; Planning the Audit in response to risk; Testing Control

Gathering in Substantive procedures; Analytics in Substantive Procedures; Completing The Audit; Reporting on the audit; Regulations and audit liability

**SUBJECT AREA: ARCH**

**ARCH6102037- TECHNICAL DRAWING (2/2 Credits)**

**Learning Outcomes:** Reading and extract information principle or standard from a technical drawing; Use suitable methods of drawing; Produce a technical drawing of a machine component, detail and assembly drawings; Use computer-aided design to produce 2D & 3D solid modeling

**Topics:** Basic Principles of Technical Drawing; Geometrical Construction Drawing; Pictorial Drawing; Multi-View Drawing; Dimensioning; Surface Finishes and Tolerance; Sectional View Drawing; Working Drawing; Assembly Drawing; Machine Element Drawing

**SUBJECT AREA: BUSS**

**BUSS6048038- INTERNATIONAL BUSINESS (4 Credits)**

**Learning Outcomes:** Understand globalization and why the world's cultures, countries, and regions differ; Examine international issues related to ethics, corporate social responsibility, sustainability, International Trade Theory, and Foreign Direct Investment; Integrate the strategies and structures of international businesses; Assess the special roles of an international business's various functions

**Topics:** Globalization and International Business; Global International Business of HRM, Accounting, and Finance in International Business; National Differences in Political, Economic, Legal, and Culture; Ethics, Corporate Social Responsibility, and Sustainability; International Trade Theory and Foreign Direct Investment; Multinational Enterprise and Regional Economic Integration; Strategies of International Business; Organization of International Business; Exporting, Importing, and Countertrade; Global International Business of Production, SCM, Marketing, and R&D functions

**BUSS6212038- DESIGN THINKING IN BUSINESS (4 Credits)**

**Learning Outcomes:** Understand the imperative of Design Thinking in Business; Identify the organization's urgent problems; Construct Design Thinking Strategies in Business; Solve the problem with collaboration

**Topics:** Understanding Design Thinking; Strategy Implementation Through Stakeholder-Focused Communication; The Value of Design Thinking; Business Model Canvas in the Context Strategy Design; Understanding the Industry Environment; Understanding Strategy Development Challenge; Strategy Development Process based on Design Thinking; Choosing a Tangible Strategic Focus; Shaping Strategy by Designing Business Model Prototypes; Succeed in a Competitive Environment

**BUSS6216038- INTERNATIONAL CULTURAL, RELATIONS AND NEGOTIATION (4 Credits)**

**Learning Outcomes:** Understanding the meaning of culture, theory of international relations, and negotiation strategy and planning.; Apply cross-cultural communication, ethics in negotiation, and the practice of international relations; Analyze the difficulty of negotiation, natural environment, international relations, and implementation of cross-cultural.; Develop motivation and leadership across cultures, best practices in negotiations, and strategy for the future international relations.

**Topics:** The Role of Culture;World International Management;Globalization and The Theories of International Relation;Managing Across Culture, Organizational, and Diversity;Cross-Cultural Communication and Negotiation;International Strategic Management;Managing Political Risk, Government Relations, Alliances, Decision, and control;Strategy and Planning of Negotiation;Managing Negotiation ;Motivation and Leadership Across Culture

**BUSS6217038- EXPORT-IMPORT MANAGEMENT & DOCUMENTATION STANDARDIZATION (4 Credits)**

**Learning Outcomes:** Understand the determinant, international, and regional agreement, and Intellectual Property rights concepts.;Apply the export-import planning and strategy.;Analyze the export-import transactions.;Develop export-import practices.

**Topics:** Overview of International Trade and International - Regional Agreements;International Trade in Practice;Export Planning and Strategy;International Logistics, Risk, and Insurance;Pricing in International Trade and Export Sales Contracts;Trade Documents and Transportation;Exchange Rates in International Trade and Methods of Payment;Countertrade;Export-Import Financing Programs;Import Procedures and Techniques

**BUSS6252038- BUSINESS ETHICS AND SUSTAINABILITY (4/2 Credits)**

**Learning Outcomes:** Define sustainability and its relevance to business; Demonstrate an ability to develop, and clearly articulate an informed ethical position on business issues; Examine the business strategy for sustainable development; Implement the sustainability concept to the organization's business strategy

**Topics:** Business, Society, and Stakeholders; Corporate Governance and Strategic Management Issues; Business Ethics Essentials; Managerial and Organizational Ethics; Ethical Issues in the Global Arena; Business, Government, Regulation, and Community Stakeholders; Business Influence on Government and Public Policy; Consumer Stakeholders; Sustainability and the Natural Environment; Internal Stakeholder Issues

**SUBJECT AREA: CHAR**

**CHAR6019035- CHARACTER BUILDING: PANCASILA (2 Credits)**

**Learning Outcomes:** To describe the Pancasila as the major basis for character education, the Pancasila as the state ideology and the world ideologies;To solve the social issues related to Indonesian unity, cultural interaction;To analyze the relationship between the Pancasila Leadership based on Pancasila Democracy and Social Justice;To compose group reflections on developing science and technology as well as anti-corruption with Pancasila as the ethical basis;To design and carry out a project on implementing Pancasila in daily life

**Topics:** Cultures Interaction;Democratic Leadership;Introduction: Pancasila as the Source of Character Education and State Ideology;Justice and Civilized Humanity;Pancasila and Anti-Corruption Character;Pancasila and Religious Diversity in Indonesia;Pancasila and The World Ideologies (Liberalism and Socialism);Pancasila as the Ethical Basic in Developing Science and Technology;Social Justice;The Unity of Indonesia

**CHAR6019036- CHARACTER BUILDING: PANCASILA (2 Credits)**

**Learning Outcomes:** To describe the Pancasila as the major basis for character education, the Pancasila as the state ideology and the world ideologies;To solve the social issues related to Indonesian unity, cultural interaction;To analyze the relationship between the Pancasila Leadership based on Pancasila Democracy and Social Justice;To compose group reflections on developing science and technology as well as anti-corruption with Pancasila as the ethical basis;To design and carry out a project on implementing Pancasila in daily life

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**CHAR6019037- CHARACTER BUILDING: PANCASILA (2 Credits)**

**Learning Outcomes:** To describe the Pancasila as the major basis for character education, the Pancasila as the state ideology and the world ideologies;To solve the social issues related to Indonesian unity, cultural interaction;To analyze the relationship between the Pancasila Leadership based on Pancasila Democracy and Social Justice;To compose group reflections on developing science and technology as well as anti-corruption with Pancasila as the ethical basis;To design and carry out a project on implementing Pancasila in daily life

**Topics:** Cultures Interaction;Democratic Leadership;Introduction: Pancasila as the Source of Character Education and State Ideology;Justice and Civilized Humanity;Pancasila and Anti-Corruption Character;Pancasila and Religious Diversity in Indonesia;Pancasila and The World Ideologies (Liberalism and Socialism);Pancasila as the Ethical Basic in Developing Science and Technology;Social Justice;The Unity of Indonesia

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**CHAR6019039- CHARACTER BUILDING: PANCASILA (2 Credits)**

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**CHAR6020035- CHARACTER BUILDING: KEWARGANEGARAAN (2 Credits)**

**Learning Outcomes:** Describe the introduction of Civic Education and values and norms;Apply the rights and obligations of citizens;Analyze the relationship among constitution, state, democracy, and law enforcement in Indonesia;Compose reflection on wawasan nusantara, regional autonomy, national integration, national resilience, digital literacy and citizenship;Design a project related to participating as global citizens, nationalism and Indonesian identity

**Topics:** Digital Literacy and Citizenship;Introduction to Civics Education;National Integration;National Resilience;Nationalism and Indonesian Identity, Participation as Global Citizens;Regional Autonomy;State and Constitution, Law Enforcement in Indonesia;The rights and obligations of the State and Its Citizens;Values and Social Norms;Wawasan Nusantara

**CHAR6020036- CHARACTER BUILDING: KEWARGANEGARAAN (2 Credits)**

**Learning Outcomes:** Describe the introduction of Civic Education and values and norms;Apply the rights and obligations of citizens;Analyze the relationship among constitution, state, democracy, and law enforcement in Indonesia;Compose reflection on wawasan nusantara, regional autonomy, national integration, national resilience, digital literacy and citizenship;Design a project related to participating as global citizens, nationalism and Indonesian identity

**Topics:** Digital Literacy and Citizenship;Introduction to Civics Education;National Integration;National Resilience;Nationalism and Indonesian Identity, Participation as Global Citizens;Regional Autonomy;State and Constitution, Law Enforcement in Indonesia;The rights and obligations of the State and Its Citizens;Values and Social Norms;Wawasan Nusantara

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**CHAR6021035- CHARACTER BUILDING: AGAMA (2 Credits)**

**Learning Outcomes:** Explain the nature of religions and the God in general; Interpret the religious formalism, contemporary issues, and religion and science dialogue; Analyze the ethical review based on conscience; Apply the religious values in the context of human relation, environment, and the development of self-religiosity; Design a project related to religious moderation and sustainable development goals (SDGs)

**Topics:** Becoming a Religious Person; Caring for The Environment; Conscience as the Basis for Ethical Review; Criticism to the Religious Formalism; Introduction to CB Religion; Knowing What or Who God is; Religion and Contemporer Issues; Religion and Science Dialogue; The Religion in General; Tolerance and Inter-Religious Cooperation for World Peace

**CHAR6021036- CHARACTER BUILDING: AGAMA (2 Credits)**

**Learning Outcomes:** Explain the nature of religions and the God in general; Interpret the religious formalism, contemporary issues, and religion and science dialogue; Analyze the ethical review based on conscience; Apply the religious values in the context of human relation, environment, and the development of self-religiosity; Design a project related to religious moderation and sustainable development goals (SDGs)

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**Topics:** Becoming a Religious Person;Caring for The Environment;Conscience as the Basis for Ethical Review;Criticism to the Religious Formalism;Introduction to CB Religion;Knowing What or Who God is;Religion and Contemporer Issues;Religion and Science Dialogue;The Religion in General;Tolerance and Inter-Religious Cooperation for World Peace

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**SUBJECT AREA: COMP**

**COMP6112036- ALGORITHM AND PROGRAMMING (4/2 Credits)**

**Learning Outcomes:** Apply syntax and functions in the C language;Analyzing a program to solve problems using the C language;Evaluate the kind of algorithms, syntax, and function for problem -solving

**Topics:** File Processing and Searching;Format Input and Output;Function and Recursion;Introduction to Algorithm and Programming;Memory Allocation;Operator, Operand, and Arithmetic;Pointers and Array;Program Control: Selection and Repetition;Sorting;Structures and Union

**COMP6288036- THESIS (6 Credits)**

**Learning Outcomes:** Analyzing the state of the art based on theories and concepts, previous research.;Create a framework using theories and concepts, as well as information technology best practices that are used as references in accordance with research.;Evaluation framework created based on data, requirements and methods that are appropriate to the research topic.

**Topics:** Discussion Chapter 1-5, Finalization Paper

**COMP6305036- COMPUTER SECURITY (4 Credits)**

**Learning Outcomes:** Explain basic principle of computer security;Define knowledge of computer security concept;Apply knowledge using computer security concept

**Topics:** Access Control;Cloud and IoT Security;Cryptography;Database and Data Center Security;Denial of Service Attack;Internet Security;Malicious Software;Operating System Security;User Authentication;Wireless Network Security

**COMP6718036- OPERATING SYSTEM (2 Credits)**

**Learning Outcomes:** Describe each of the components of the Operating Systems and their interrelationship;Explain the concept and design of each of the components of the Operating System;Relate the fundamental design to the current development of Operating System;Apply different design strategy to measure the performance of the Operating System

**Topics:** Computer and Operating Systems Overview;Concurrency: Deadlock and Starvation;Concurrency: Mutual Exclusion and Synchronization ;File Management;I/O Management and Disk Scheduling;Memory Management and Virtual Memory;Process Description and Control ;Process Scheduling;Threads;Big Data Analytics

**COMP6724036- INTERNET OF THINGS (4 Credits)**

**Learning Outcomes:** Describe and identify the concepts, state-of-the-art developments, and applications of the Internet of Things (IoT); Interpret IoT architecture; Diagnose problems and construct solutions using IoT intelligence tools and security measures.

**Topics:** Introduction; IoT Architectures and Core IoT Modules; Sensors, Endpoints, and Power Systems; Communications and Information Theory; Long-Range Communication Systems and Protocols (WAN); Routers and Gateways; IoT Edge to Cloud Protocols; Cloud and Fog Topologies; IoT Intelligence Tools;IoT Security .

**COMP6961036- COMPUTER INFRASTRUCTURE AND FORENSIC (4 Credits)**

**Learning Outcomes:** Understanding fundamental concepts and scope of digital forensics;Apply digital forensic methods and techniques to solve investigation issues;Implement digital forensic tools to solve investigation issues

**Topics:** Basic concept and scope of Digital forensics;Computer Hardware;Documenting the Investigation ;Mobile App Investigations ;Mobile Forensics ;Network Forensics and Incident Response;Online Investigations;Photograph Forensics;Social media forensics;Windows Operating and File Systems

**SUBJECT AREA: COSC**

**COSC6012035- FOUNDATIONS OF ARTIFICIAL INTELLIGENCE (2 Credits)**

**Learning Outcomes:** Describe what is AI, its applications, use cases, and how it is transforming organizations; Explain terms like machine learning, deep learning, neural networks, natural language processing, computer vision, speech recognition, etc; Use AI tools and platforms to perform various tasks; Evaluate the performance and limitations of AI systems and tools; Discuss the ethical, social, and legal implications of AI

**Topics:** Introduction to AI; Machine Learning Fundamental; AI and Data; Natural Language Processing; Speech Recognition; Computer Vision; Video Processing; AI with IoT; AI and Robots in Our Lives; AI in Entertainment and Gaming; AI and Society; Ethics of AI: bias and fairness

**COSC6012037- FOUNDATIONS OF ARTIFICIAL INTELLIGENCE (2 Credits)**

**Learning Outcomes:** Describe what is AI, its applications, use cases, and how it is transforming organizations; Explain terms like machine learning, deep learning, neural networks, natural language processing, computer vision, speech recognition, etc; Use AI tools and platforms to perform various tasks; Evaluate the performance and limitations of AI systems and tools; Discuss the ethical, social, and legal implications of AI

**Topics:** Introduction to AI; Machine Learning Fundamental; AI and Data; Natural Language Processing; Speech Recognition; Computer Vision; Video Processing; AI with IoT; AI and Robots in Our Lives; AI in Entertainment and Gaming; AI and Society; Ethics of AI: bias and fairness

**COSC6012038- FOUNDATIONS OF ARTIFICIAL INTELLIGENCE (2 Credits)**

**Learning Outcomes:** Describe what is AI, its applications, use cases, and how it is transforming organizations; Explain terms like machine learning, deep learning, neural networks, natural language processing, computer vision, speech recognition, etc; Use AI tools and platforms to perform various tasks; Evaluate the performance and limitations of AI systems and tools; Discuss the ethical, social, and legal implications of AI

**Topics:** Introduction to AI; Machine Learning Fundamental; AI and Data; Natural Language Processing; Speech Recognition; Computer Vision; Video Processing; AI with IoT; AI and Robots in Our Lives; AI in Entertainment and Gaming; AI and Society; Ethics of AI: bias and fairness

**COSC6012039- FOUNDATIONS OF ARTIFICIAL INTELLIGENCE (2 Credits)**

**Learning Outcomes:** Describe what is AI, its applications, use cases, and how it is transforming organizations; Explain terms like machine learning, deep learning, neural networks, natural language processing, computer vision, speech recognition, etc; Use AI tools and platforms to perform various tasks; Evaluate the performance and limitations of AI systems and tools; Discuss the ethical, social, and legal implications of AI

**Topics:** Introduction to AI; Machine Learning Fundamental; AI and Data; Natural Language Processing; Speech Recognition; Computer Vision; Video Processing; AI with IoT; AI and Robots in Our Lives; AI in Entertainment and Gaming; AI and Society; Ethics of AI: bias and fairness

#### **COSC6014036- SPECIALIZED PLATFORM DEVELOPMENT (4/2 Credits)**

**Learning Outcomes:** Understand and explain the concept of cross-platform application development, including the differences between mobile and web applications, as well as the role of databases and APIs in modern applications; design and implement cross-platform applications with database and API integration, using appropriate programming languages and frameworks to achieve efficiency and ease in development; build fully functional full stack applications with interactive interfaces and supporting backend integration, as well as understand the process of developing, testing and deploying cross-platform applications.

**Topics:** Introduction to Cross-Platform Development; Overview of Mobile and Web Development; Front-End Development for Cross-Platform Applications; Back-End Development and API Integration; Database Management in Cross-Platform Applications; State Management in Cross-Platform Apps; Authentication and Authorization; Full Stack Development Workflow; Deployment of Cross-Platform Applications; Project: Building a Full Stack Cross-Platform Application.

#### **COSC6016036- HUMAN COMPUTER INTERACTION DESIGN (4 Credits)**

**Learning Outcomes:** Explain the key concepts and principles of interaction design and recognize the role of user-centred design in creating effective interactions; Apply various interaction design and prototyping methods to design user-friendly and interactive interfaces using principles such as affordances, constraints, and feedback; Evaluate user experience using appropriate methods (such as usability testing, heuristic evaluation, or cognitive walkthroughs) and implement iterative design cycles based on the evaluation results.

**Topics:** Introduction to Human-Computer Interaction; Conceptualizing Interaction & Cognitive Aspects; Social & Emotional Interaction, Interfaces; Data Gathering in HCI; Data Analysis, Interpretation, and Presentation; Data at Scale and Ethical Concerns; Discovering Requirements in HCI; Design, Prototyping, & Construction; Interaction Design in Practice; Evaluation in Human-Computer Interaction

#### **COSC6017036- GENERATIVE ARTIFICIAL INTELLIGENCE (2/2 Credits)**

**Learning Outcomes:** Understand the Foundations of Generative AI; Develop and Implement Generative Model; Analyze Ethical Implications of Generative AI

**Topics:** Introduction to Generative AI; Probability and Generative Models; Variational Autoencoders (VAEs) Generative Adversarial Networks (GANs); Transformer-Based Generative Models; Natural Language Generation (NLG); Diffusion Models and Other Emerging Architectures; Evaluating Generative Models; Practical Applications of Generative AI; Ethical and Societal Implications

#### **COSC6018036- NATURAL LANGUAGE PROCESSING (2/2 Credits)**

**Learning Outcomes:** Explain and apply fundamental linguistics ideas and methods to natural language processing; Construct a suitable pipeline for a particular NLP task and build pipeline components; Use linguistic concepts and methods to solve language challenges and develop algorithmic solutions to specific language difficulties; Illustrate with instances the potential downsides of a developing NLP technology and how such damages may be reduced.

**Topics:** Introduction to Language Model; Introduction to Natural Language Processing; Pre-processing Technique; Sentiment Analysis and Machine Learning in NLP; Word Embedding; Recurrent Neural Networks; Convolutional Neural Networks; Transfer Learning and Name Entity Recognition; Semi Supervised and Active Learning; Natural Language Understanding and Natural Language Generation

#### **COSC6021036- NETWORK COMMUNICATION (2/2 Credits)**

**Learning Outcomes:** Explain the basic network communication technology; Able to apply basic processes and components that exist in VoIP technology; Able to evaluate concepts and work processes that exist in VoIP technology.

**Topics:** Introduction to VoIP Technology; Voip Protocol Fundamental; Packet Transmission and Switching; VoIP Signaling and Call Processing; VoIP and Unified Communications Define the Future; How VoIP and UC Impact

the Network; Interconnections to Global Services; Quality of Service Management; Network Management for VoIP and UC; VoIP Over Wireless LANs—Prospects and Challenges

**COSC6023036- ARTIFICIAL INTELLIGENCE (2/2 Credits)**

**Learning Outcomes:** Introduce fundamental concepts and techniques in Artificial Intelligence; Enable students to develop and implement AI solutions to real-world problems; Provide practical experience in AI algorithms and systems using programming tools

**Topics:** Introduction to Artificial Intelligence (LAB: AI tools and environments (Python, Jupyter Notebooks)); Intelligent Agents and Environments (LAB: Implementing search algorithms); Heuristic Search and Optimization (LAB: Heuristic search implementation in AI problems); Constraint Satisfaction Problems (CSPs) (LAB: Solving CSPs in Python); Knowledge Representation and Reasoning (LAB: Building a rule-based AI system); Planning in AI (LAB: Implementing planning algorithms); Machine Learning Basics (LAB: Developing simple ML models in Python); Advanced Machine Learning Techniques (LAB: Implementing neural networks and RL in AI applications); Natural Language Processing (NLP) (LAB: Building NLP models using Python (e.g., NLTK, spaCy)); AI in Vision and Perception (LAB: Image recognition with CNNs in Python (TensorFlow/Keras))

**COSC6025036- DATA STRUCTURES AND ALGORITHM ANALYSIS (4/2 Credits)**

**Learning Outcomes:** Explain the concept data structures and its usage in Computer Science; Analyze algorithm complexity; Students will be able to assess the time and space complexity of algorithms; Implement data structures and algorithm in Java

**Topics:** Introduction to Data Structures and Algorithm Analysis; Introduction to Time and Space Complexity Analysis; Arrays: Implementation, operations (traversal, searching, insertion, deletion), and efficiency considerations; Linked Lists: Singly linked lists and doubly linked lists, their applications, and implementation in Java; Stacks and Queues: Abstract Data Types (ADT); Time and space complexity analysis with practical examples; Tree, Binary Tree, and Binary Search Tree; Hash Tables: Hash functions, collision resolution strategies, and implementation; Greedy algorithms; Dynamic programming algorithms

**COSC6026036- SOFTWARE DESIGN (4/2 Credits)**

**Learning Outcomes:** Understand software design and architecture. ; Apply models of data flow and object-oriented diagram.; Develop design user interface for websites, mobile, and Artificial Intelligence application

**Topics:** Definition of software design; The Paradigm of Object-Orientation and Beyond.; Essentials of Object-Oriented Design.; Design of Methods.; Design of Objects.; Software Modelling Language and Tools.; Design of Larger Software Elements.; Software Design Patterns.; Software Architecture and Architecture Views; Design Case Studies

**COSC6028036- INTRODUCTION TO DATA SCIENCE (4 Credits)**

**Learning Outcomes:** Understand and explain the basic concepts of Data Science, including an introduction to the data life cycle and the role of Data Science in various fields; analyze data using basic statistical methods and data analysis tools to gain initial insights; develop simple solutions using Data Science techniques to solve real problems independently, and display results visually and informatively.

**Topics:** Introduction to Data Science and Its Role; Data Science Lifecycle; Types of Data and Data Sources; Data Preprocessing; Descriptive Statistics and Basic Visualization; Programming for Data Science (Python/R); Exploratory Data Analysis (EDA); Fundamentals of Machine Learning; Model Validation and Evaluation; Data Science Ethics and Data Security.

**COSC6029036- STORYTELLING WITH DATA (4/2 Credits)**

**Learning Outcomes:** Understand the basic concepts of data-based storytelling and the principles of effective data visualization; analyze and choose appropriate visualization methods for various types of data and develop logical and interesting storylines based on the data; produce informative and interactive data visualizations and present the results professionally by considering ethics and audience needs in data communication.

**Topics:** Introduction to Data Storytelling; Understanding Your Audience; Data Visualization Principles; Choosing the Right Chart and Graph; Building a Data Narrative; Visual Storytelling Tools (e.g., Tableau, Power BI, Django

Python Library); Color Theory and Design for Data; Communicating Uncertainty in Data; Creating Interactive Dashboards; Storytelling Ethics and Avoiding Data Misrepresentation.

**COSC6030036- DATA ANALYSIS FOR DECISION MAKING (2/2 Credits)**

**Learning Outcomes:** Understand the concept of data analysis and statistical methods used in data-based decision making; identify and apply appropriate data analysis techniques to evaluate and support decision making in various business or organizational contexts; develop and present data-based recommendations professionally for problem solving and decision making by considering ethical aspects and implications of analysis results.

**Topics:** Introduction to Data Analysis for Decision Making; Statistical Methods for Decision Making; Decision-Making Frameworks; Data Collection and Quality Assessment; Predictive Analytics for Decision Making; Optimization Techniques in Decision Making; Risk Analysis and Decision-Making Under Uncertainty; Cost-Benefit Analysis and ROI (Return on Investment); Dashboard Development for Decision Support; Case Studies in Data-Driven Decision Making.

**COSC6031036- DATA ACQUISITION AND MANAGEMENT (2/2 Credits)**

**Learning Outcomes:** Understand the basic principles of data acquisition, data sources, and data management techniques to support reliable data analysis; apply data acquisition and database management methods to ensure data can be accessed, integrated and stored efficiently; design and implement effective data management systems, including the process of capturing, storing and processing data in real contexts.

**Topics:** Introduction to Data Acquisition and Management; Data Sources and Data Collection Methods; Data Formats and Data Interoperability; Data Cleaning and Preprocessing Techniques; Database Management Systems (DBMS); Data Storage and Retrieval Techniques; ETL (Extract, Transform, Load) Processes; Data Integration and Data Warehousing; Metadata and Data Cataloging; Data Governance and Ethical Considerations.

**COSC6032036- DATA GOVERNANCE, ETHICS AND LAW (2 Credits)**

**Learning Outcomes:** Understand the basic principles of data governance, including data security, privacy, and legal responsibilities in data management; analyze ethical issues related to data use and its legal implications, and apply ethical principles in data management; design data governance policies and data management procedures that comply with legal regulations and ethical standards, and identify risks and mitigation strategies to protect data privacy and security.

**Topics:** Introduction to Data Governance; Principles of Data Privacy and Security; Ethics in Data Management and Usage; Legal Frameworks and Data Protection Laws; Intellectual Property and Data Ownership; Data Governance Frameworks and Models; Risk Management in Data Governance; Data Auditing and Compliance; Impact of AI and Big Data on Privacy and Ethics; Case Studies in Data Governance and Ethics

**COSC6033036- DATA SCIENCE AND DIGITAL TRANSFORMATION (4 Credits)**

**Learning Outcomes:** Understand the role of Data Science in the digital transformation process and how data can be a driver of change in organizations; analyze and apply Data Science concepts to identify opportunities and challenges in the digitalization process; develop Data Science-based solutions to support the organization's digital transformation strategy by considering operational and business aspects.

**Topics:** Introduction to Digital Transformation and Data Science; The Role of Data in Driving Digital Transformation; Emerging Technologies in Digital Transformation (AI, IoT, Blockchain); Data Strategy and Business Alignment; Data-Driven Decision Making in Digital Transformation; Customer Insights and Personalization; Process Automation and Optimization; Digital Transformation Frameworks and Models; Change Management in Digital Transformation; Case Studies in Data Science and Digital Transformation.

**COSC6034036- CULTURAL DATA SCIENCE (4 Credits)**

**Learning Outcomes:** Understand the basic concepts of Cultural Data Science and how data can be used to analyze, understand, and promote cultural aspects in a digital context; apply data analysis techniques to explore cultural trends, behavioral patterns, and social representations in various cultural contexts; develop and present data analysis projects that provide insights into cultural phenomena, using Data Science skills with sensitivity to social and cultural contexts.

**Topics:** Introduction to Cultural Data Science; Data Sources in Cultural Studies; Digital Humanities and Cultural Analytics; Text Mining and Sentiment Analysis in Cultural Contexts; Social Network Analysis for Cultural Trends;

Image and Media Analysis; Ethics and Sensitivity in Cultural Data Science; Cultural Data Visualization; Machine Learning for Cultural Prediction; Case Studies in Cultural Data Science

**COSC6036036- SOCIAL MEDIA AND NETWORK ANALYSIS (4 Credits)**

**Learning Outcomes:** Understand and explain the basic concepts of Social Network Analysis (SNA) and graph theory, including key elements in social networks such as nodes, edges, and centrality; apply network analysis techniques using SNA metrics such as degree centrality, betweenness, and clustering coefficient to evaluate the structure and interaction patterns in social networks; design and build comprehensive social network models using graph analysis tools and techniques, and interpret the results to identify communities and influential entities in social networks.

**Topics:** Introduction to Social Media and Network Analysis; Fundamentals of Graph Theory; Types of Social Networks; Data Collection from Social Media Platforms; Metrics in Network Analysis (Centrality, Clustering, Density); Community Detection and Influence Analysis; Sentiment and Content Analysis in Social Media; Visualization of Social Networks; Network Dynamics and Information Diffusion; Case Studies in Social Media and Network Analysis.

**COSC6041036- CALCULUS AND SCIENTIFIC COMPUTING (4 Credits)**

**Learning Outcomes:** Describe theoretical concepts of calculus; Explain how scientific computing principles can be applied to solve problems; Apply knowledge of calculus and scientific computing to develop and implement solutions for real-world problems

**Topics:** Introduction to Calculus and Scientific Computing; Limits; Derivatives; Integrals; Partial Derivatives; Vector Calculus; Linear Algebra; Least-Squares Regression; Interpolation; Application of Calculus in Machine Learning

**COSC6062036- DATABASE TECHNOLOGY (2 Credits)**

**Learning Outcomes:** Understand and explain the basic concepts of database technology, including data models, database architecture, and database management systems (DBMS); design and implement databases using relational and non-relational models, and perform CRUD (Create, Read, Update, Delete) operations efficiently; develop database technology-based solutions that include database schema design, performance optimization, and integration with applications.

**Topics:** Introduction to Database Technology; Database Models and Architecture; Relational Database Design; Structured Query Language (SQL); NoSQL Databases; Database Transactions and Concurrency Control; Database Indexing and Optimization; Database Security and Access Control; Backup and Recovery Techniques; Database Integration and Connectivity.

**COSC6066036- SYSTEM ADMINISTRATION (2/2 Credits)**

**Learning Outcomes:** This course provides learners with information about system administration and practices so that they can explain system and network administration concepts like change processes, management practices, and service provisioning. The student also learns and practices UNIX and Linux history and fundamentals, software installation concepts, networking, system security, backup, and disaster recovery.

**Topics:** Introduction. Policies, Overview, UNIX and Linux history and basics; File systems and disks; Software installation concepts; Multi-user basics, politics, policies, and ethics; Automating Administrative Tasks; Networking; DNS, SMTP, SNMP, and HTTP; Virtualization and cloud administrator; System security; Backup and Disaster Recovery

**COSC6106037- DATA SCIENCE: MACHINE LEARNING (4 Credits)**

**Learning Outcomes:** Understand and explain the basic concepts of Machine Learning (ML), including supervised, unsupervised, and reinforcement learning, as well as the main algorithms in each category; implement and evaluate Machine Learning models using relevant performance metrics, such as accuracy, precision, recall, F1-score, and AUC-ROC; design and build Machine Learning-based solutions that can solve real-world problems, including data preprocessing, feature selection, model selection, and hyperparameter tuning.

**Topics:** Introduction to Machine Learning; Data Preprocessing for Machine Learning; Supervised Learning: Classification Algorithms; Supervised Learning: Regression Algorithms; Unsupervised Learning: Clustering

Techniques; Dimensionality Reduction Techniques; Model Evaluation and Validation; Ensemble Learning Methods; Hyperparameter Tuning and Model Optimization; Ethics in Machine Learning

**SUBJECT AREA: ECON**

**ECON6095038- BUSINESS ECONOMICS (4 Credits)**

**Learning Outcomes:** Comprehend the principles of business economics and employ them within the market system.;Apply the consumer behavior, producer behavior, and exemplify various market structures.;Apply the principles of macroeconomics.;Analyze the policies in macroeconomics and the state of the global economy.

**Topics:** The Economic and Business Environment;The Global Economy;The Market System;Consumer Behaviour;Firm Behaviour;Market Structures;The Macroeconomic Environment of Business;Aggregate Demand and Aggregate Supply as a Model to describe the Economy;Inflation and Unemployment;Government Economic Policy

**SUBJECT AREA: ENGL**

**ENGL6163035- ENGLISH PROFESSIONAL (4 Credits)**

**Learning Outcomes:** Demonstrate the upper intermediate English listening skills both academically and professionally;Demonstrate the upper intermediate English reading skills both academically and professionally;Demonstrate the upper intermediate English speaking skills both academically and professionally;Demonstrate the upper intermediate English writing skills both academically and professionally.

**Topics:** Academic vs Business English;Business Documents;Business Meeting;Capturing Ideas in different texts;Composing Business Negotiation Email;Dealing with Business Negotiation;Delivering Business Presentation;Discussion Essay;Presenting Specific Information and Writing Academic Essay;Statement of Fact vs Opinion

**ENGL6163036- ENGLISH PROFESSIONAL (4 Credits)**

**Learning Outcomes:** Demonstrate the upper intermediate English listening skills both academically and professionally;Demonstrate the upper intermediate English reading skills both academically and professionally;Demonstrate the upper intermediate English speaking skills both academically and professionally;Demonstrate the upper intermediate English writing skills both academically and professionally.

**Topics:** Academic vs Business English;Business Documents;Business Meeting;Capturing Ideas in different texts;Composing Business Negotiation Email;Dealing with Business Negotiation;Delivering Business Presentation;Discussion Essay;Presenting Specific Information and Writing Academic Essay;Statement of Fact vs Opinion

**ENGL6163037- ENGLISH PROFESSIONAL (4 Credits)**

**Learning Outcomes:** Demonstrate the upper intermediate English listening skills both academically and professionally;Demonstrate the upper intermediate English reading skills both academically and professionally;Demonstrate the upper intermediate English speaking skills both academically and professionally;Demonstrate the upper intermediate English writing skills both academically and professionally.

**Topics:** Academic vs Business English;Business Documents;Business Meeting;Capturing Ideas in different texts;Composing Business Negotiation Email;Dealing with Business Negotiation;Delivering Business Presentation;Discussion Essay;Presenting Specific Information and Writing Academic Essay;Statement of Fact vs Opinion

**ENGL6163038- ENGLISH PROFESSIONAL (4 Credits)**

**Learning Outcomes:** Demonstrate the upper intermediate English listening skills both academically and professionally;Demonstrate the upper intermediate English reading skills both academically and professionally;Demonstrate the upper intermediate English speaking skills both academically and professionally;Demonstrate the upper intermediate English writing skills both academically and professionally.

**Topics:** Academic vs Business English;Business Documents;Business Meeting;Capturing Ideas in different texts;Composing Business Negotiation Email;Dealing with Business Negotiation;Delivering Business Presentation;Discussion Essay;Presenting Specific Information and Writing Academic Essay;Statement of Fact vs Opinion

**ENGL6163039- ENGLISH PROFESSIONAL (4 Credits)**

**Learning Outcomes:** Demonstrate the upper intermediate English listening skills both academically and professionally; Demonstrate the upper intermediate English reading skills both academically and professionally; Demonstrate the upper intermediate English speaking skills both academically and professionally; Demonstrate the upper intermediate English writing skills both academically and professionally.

**Topics:** Academic vs Business English; Business Documents; Business Meeting; Capturing Ideas in different texts; Composing Business Negotiation Email; Dealing with Business Negotiation; Delivering Business Presentation; Discussion Essay; Presenting Specific Information and Writing Academic Essay; Statement of Fact vs Opinion

**SUBJECT AREA: ENPR****ENPR6088038- INNOVATIVE PRODUCT DESIGN & DEVELOPMENT (4 Credits)**

**Learning Outcomes:** Describe the characteristics used for product design and development.; Apply the steps of concept development.; Designing and managing new product development

**Topics:** Product Development and Organization; New Product Development & Managing the New Product Development Process ; Product Planning; Identifying Customer Needs & Product Specifications; Concept Generation, Selection, and Testing; Product Architecture & Design for Manufacturing and Supply Chain; Prototyping & Robust Design; Patents and Intellectual Property ; Service Design & Designing A Business Model; Market Adoption and Technology Diffusion

**ENPR6089038- VALUE PROPOSITION & BUSINESS MODEL DESIGN (4 Credits)**

**Learning Outcomes:** Understand business model canvas concept; Discover value propositions that deliver on customer needs, wants & desires; Illustrate business model canvas concept; Design business model canvas for real business

**Topics:** The Business Model Canvas and How Business Model Shift; Business Model: Strategy ; Community-Based Digital Business Models : Platforms; Transforming Organizations From Digital to Demand-Driven; Managing Multiple Business Models ; Value Proposition; Prototyping Possibilities as starting points; Understanding Customers and making Choices; Reduce the Risk and Uncertainty: Test; Evolve: Use The Value Proposition and Business Model Canvas

**ENPR6090038- BUSINESS RISK ANALYSIS (4 Credits)**

**Learning Outcomes:** Explain the meaning of risk and the impact of risk on organization; Apply the risk management analysis to assess, control and transfer risk; Analyze the risk management strategy to ensure that an organization; Measuring strategic risk for companies and governments

**Topics:** Introduction to Risk Management; Risk Assurance; Managing risk; Enterprise risk management ; Assessing Risks; Analysing Risks; Risk Response; Organizational Environment ; Responsibilities, Roles, and Competency Risk Manager; Corporate Governance and Risk Management

**ENPR6091038- ENTREPRENEURSHIP IN CREATIVE INDUSTRY (4 Credits)**

**Learning Outcomes:** Define target customer characteristics and needs for customer-focused innovation; Apply the business model canvas as a program to support innovation; Analyse Prototype validation and redevelopment of Business model Canvas; Recommend product or service innovations in the creative industry

**Topics:** Introduction to Entrepreneurship In Creative Industry; Explaining the key idea, User Persona and Storyboard; Prototype Development; Re-prototyping and Feedback Grid; Rethinking Business Model Canvas; Pitch Deck; Commercialization I; Commercialization II; Evaluation

**ENPR6253035- ENTREPRENEURSHIP (2 Credits)**

**Learning Outcomes:** Identify problems as opportunities for entrepreneurial innovation; Analyze innovative business solutions to address customer problems; Design strategies needed to develop a sustainable business.

**Topics:** Entrepreneurial Mindset; Understanding Your Customers; Idea Generation; Value Proposition Canvas; Positioning Your Business; Creating Your Prototypes; Testing Your Prototype; Competitive Analysis; Creating Your Business Model

**ENPR6253036- ENTREPRENEURSHIP (2 Credits)**

**Learning Outcomes:** Identify problems as opportunities for entrepreneurial innovation; Analyze innovative business solutions to address customer problems; Design strategies needed to develop a sustainable business.  
**Topics:** Entrepreneurial Mindset; Understanding Your Customers; Idea Generation; Value Proposition Canvas; Positioning Your Business; Creating Your Prototypes; Testing Your Prototype; Competitive Analysis; Creating Your Business Model

**ENPR6253037- ENTREPRENEURSHIP (2 Credits)**

**Learning Outcomes:** Identify problems as opportunities for entrepreneurial innovation; Analyze innovative business solutions to address customer problems; Design strategies needed to develop a sustainable business.  
**Topics:** Entrepreneurial Mindset; Understanding Your Customers; Idea Generation; Value Proposition Canvas; Positioning Your Business; Creating Your Prototypes; Testing Your Prototype; Competitive Analysis; Creating Your Business Model

**ENPR6253038- ENTREPRENEURSHIP (2 Credits)**

**Learning Outcomes:** Identify problems as opportunities for entrepreneurial innovation; Analyze innovative business solutions to address customer problems; Design strategies needed to develop a sustainable business.  
**Topics:** Entrepreneurial Mindset; Understanding Your Customers; Idea Generation; Value Proposition Canvas; Positioning Your Business; Creating Your Prototypes; Testing Your Prototype; Competitive Analysis; Creating Your Business Model

**ENPR6253039- ENTREPRENEURSHIP (2 Credits)**

**Learning Outcomes:** Identify problems as opportunities for entrepreneurial innovation; Analyze innovative business solutions to address customer problems; Design strategies needed to develop a sustainable business.  
**Topics:** Entrepreneurial Mindset; Understanding Your Customers; Idea Generation; Value Proposition Canvas; Positioning Your Business; Creating Your Prototypes; Testing Your Prototype; Competitive Analysis; Creating Your Business Model

**SUBJECT AREA: FINC****FINC6046038- FINANCIAL MANAGEMENT (4 Credits)**

**Learning Outcomes:** Understand the basic Financial Management and Time Value of Money; Calculate and analyze Valuation of Securities and Risk and Return; Apply the calculation of Cost of Capital, Capital Budgeting Cashflow and technique for Long term Investment Decision; Evaluate long term financial decision on capital structure and payout policy; Evaluate short term financial decision on Working Capital & Current Asset Management and Current Liabilities Management  
**Topics:** Capital Budgeting Cash Flows ; Capital Budgeting Techniques ; Capital Structure and Payout policy; Cost of Capital; Current Liabilities Management; Introduction to Managerial Finance and Financial Statement ; Risk & Return; Time Value of Money; Valuation of Securities; Working Capital and Current Asset Management

**FINC6205039- FINANCIAL MANAGEMENT (4 Credits)**

**Learning Outcomes:** Understand the basic Financial Management and Time Value of Money; Calculate and analyze Valuation of Securities and Risk and Return; Apply the calculation of Cost of Capital, Capital Budgeting Cashflow and technique for Long term Investment Decision; Evaluate long term financial decision on capital structure and payout policy; Evaluate short term financial decision on Working Capital & Current Asset Management and Current Liabilities Management  
**Topics:** Introduction to Managerial Finance and Financial Statement; Time Value of Money; Valuation of Securities; Risk & Return; Cost of Capital; Capital Budgeting Techniques; Capital Budgeting Cash Flows; Capital Structure and Payout policy; Working Capital and Current Asset Management; Current Liabilities Management

**FINC6222039- QUANTITATIVE ANALYSIS (4 Credits)**

**Learning Outcomes:** Understand statistical, probability concepts and distribution, sampling and estimation; Apply the hypothesis testing, linear regression, multiple regression, and running the data; Apply time-series analysis and multifactor models; Understand machine learning, big data project and market risk.

**Topics:** Statistical and Probability Concept; Probabilly distribution and Sampling estimation; Hypothesis Testing; Linear Regression; Multiple Regression; Time Series Analysis; Using multifactor models; Machine Learning; Big Data Projects; Market Risk.

#### **FINC6223039- FINANCIAL MARKET AND DIGITAL FINANCE ECOSYSTEM (4 Credits)**

**Learning Outcomes:** Understand the Financial Market and Institution and Financial Safety Net in Indonesia (Ministry of Finance, OJK, BI, LPS); Explain The money, capital market and non-bank institutions in Indonesia both conventional and sharia; Understand the foundation of financial market and banking technology, FinTech Overview, the role of Consumer Empowerment, Social and Financial Services, and Connected Financial Commerce; Explain Digital Currency, Bitcoin, Cryptocurrency, Blockchain, innovating with Big Data and Open platforms, and Inclusive FinTech

**Topics:** The Role of Financial Markets and Institution and Financial Safety Net in Indonesia; Money Market, Bond Market, Capital Market in Indonesia and Financial Service (Sharia); Commercial Banking and Financial technology in banking; Financial Market technology and Cross-Functional Considerations; Fintech Overview & Consumer Empowerment Knocking at the Door; Social and Financial Services; Connected Financial Commerce; Digital Currency, Bitcoin and Cryptocurrency; Blockchain, Innovating with Big Data and Open Platforms; Inclusive FinTech

#### **FINC6224039- CORPORATE FINANCE AND VALUATION (4 Credits)**

**Learning Outcomes:** Explain financial concepts and techniques, assessing business performance; Analyze investment and financing decision; Apply business decision and managing value creation.

**Topics:** Overview of Financial Management, Value Creation and Time Value of Money ; Risk and return & Interpreting Financial Statements; Analyzing Operational Efficiency, Liquidity, Profitability, Risk, and Growth; Using the Net Present Value Rule to Make Value-Creating Investment Decisions; Alternatives to the Net Present Value Rule; Identifying and Estimating a Project's Cash Flows ; Valuing Bonds, Stocks, Raising Capital and Paying Out Cash; Estimating the Cost of Capital and Designing a Capital Structure; Valuing and Acquiring a Business; Making International Business Decisions and Managing for Value Creation.

#### **FINC6225039- INTERNATIONAL FINANCE (4 Credits)**

**Learning Outcomes:** Understand the fundamentals of international financial management; Understand the influence of government policies on exchange rates, the dynamics between inflation, interest rates, and exchange rates, and the principles of international arbitrage and interest rate parity; Understand exchange rates forecasting and measurement and manage different types of exposure to exchange rate fluctuations and country risk analysis; Analyze strategies for long-term & short-term asset and liability management, including Direct Foreign Investment (DFI) and multinational capital structure, including financing international trade, short-term financing, and international cash management.

**Topics:** Multinational Financial Management, International Flow of Funds, and International Financial Markets; Exchange Rate Determination and Currency Derivatives; Government Influence on Exchange Rates & International Arbitrage and Interest Rate Parity; Relationships among Inflation, Interest Rates, and Exchange Rates; Forecasting Exchange Rate and Measuring Exposure to Exchange Rate Fluctuations; Managing Transaction Exposure, Managing Economic Exposure and Translation Exposure; Direct Foreign Investment and Country Risk Analysis ; Multinational Capital Structure, Cost of Capital, and Long-Term Debt Financing; Financing International Trade and Short-Term Financing; International Cash Management.

#### **FINC6226039- INVESTMENT ANALYSIS AND PORTFOLIO MANAGEMENT (4 Credits)**

**Learning Outcomes:** Explain the investment theory, asset allocation, portfolio management; Apply valuation and portfolio management strategies of stock & bonds; Analyze portfolio performance, derivative securities and alternative assets.

**Topics:** The Investment Setting, Asset allocation and security selection; Introduction to portfolio management and Asset pricing models; Efficient capital markets, behavioral finance and technical analysis; Top Down Approach to Market Industry and Company Analysis; Equity Valuation and portfolio management strategies ; Bond Fundamentals & Valuation; Bond portfolio management strategies; Evaluation of portfolio performance; Option contracts, Forward Futures and Swap contracts; Professional portfolio management and alternative assets.

**FINC6227039- RISK MANAGEMENT (4 Credits)**

**Learning Outcomes:** Explain fundamental concepts related to risk and return, the functioning of various financial institutions, the impact of financial crises, and basic principles of volatility, correlation, copulas; Calculate , Value at Risk (VaR), Expected

Shortfall (ES) and delve into an assortment of other market risk topics, demonstrating comprehension of risk management in trading activities; Calculate credit risk, operational risk, liquidity risk, model risk, climate risk, and enterprise risk

management, showcasing their ability to use these concepts in various financial situations; Analyze the implications of financial regulations including Basel I, II, and III, and FRTB, demonstrating an understanding of economic capital and the role of financial innovation in risk management.

**Topics:** Introduction; risk vs. return; banks; Insurance companies, pension funds, mutual funds, and hedge funds; Financial markets and the Global Financial Crisis; Volatility, correlation and copulas; Calculation of VaR and ES; Credit risk 1 and Credit risk 2; Operational risk, liquidity risk, and model risk; Climate risk and enterprise risk management; Regulation: Basel I, II and III; Economic capital and financial innovation.

**FINC6228039- ENTREPRENEURIAL FINANCE (4 Credits)**

**Learning Outcomes:** Describe finance for entrepreneurs and develop business idea, organizing, preparing, evaluating financial statements and Process IPO in Indonesia; Calculate managing cash flow and capital cost WACC, EVA; Analyze projected annual sales related financial statement, valuing early-stage venture, venture capital valuation; Analyze other financing alternatives and securities structure and determining enterprise value, harvesting business venture investment.

**Topics:** Introduction to Finance for Entrepreneurs & Developing the Business Idea; Organizing and Financing a New Venture; Preparing and Evaluating Financial Performance using Financial Statements; Managing Cash Flow, Types and Costs of Financial Capital; Projecting Financial Statements; Valuing Early-Stage Ventures; Professional Venture Capital and Valuation Methods; Other Financial Alternatives; Securities Structures and Determining Enterprise Value; Harvesting the Business Venture Investment .

**SUBJECT AREA: ISYE****ISYE6077037- PROJECT MANAGEMENT (4 Credits)**

**Learning Outcomes:** Explain project management concepts, principle, methods, project management process and project life cycle based on manufacturing company or services industry; Utilize project management tools, techniques, and skills in engineering/ industrial problems; Demonstrate project management solutions for engineering problem-solving.

**Topics:** Introduction to Project Management; Project Closure; Organization Structure and Strategy in Project Management; Project Planning; Project Scheduling Management; Project Cost Management; Project Resource Management; Project Risk Management; Project Stakeholder Management; Project Monitoring and Evaluation

**ISYE6087037- INTRODUCTION TO MANUFACTURING PROCESSES (4 Credits)**

**Learning Outcomes:** Recognize manufacture process, product design and material selection; Analyze the various properties of materials, testing, machining and production equipment for manufacturing; Uses instruments and measuring based on a quality assurance method

**Topics:** Engineering metrology and instrumentation; Ferrous Metal and Alloys; Fundamentals of Machining; General Introduction Manufacturing; Mechanical behavior, testing and manufacturing properties of materials; Physical Properties of Materials; Plastic and composite materials; Product Design and Process Selection; Quality assurance testing and inspection; Sheet metal forming processes and equipment

**ISYE6094037- QUALITY ENGINEERING (4 Credits)**

**Learning Outcomes:** Explain the concept of quality in meeting customer needs and satisfaction through effective and efficient operational processes to increase productivity in industrial companies, both services and manufacturing.; Analyze the concept and principles of Quality Engineering in Manufacturing or services company and AI Contribution to solving the quality problem; Analyze the concept of quality to operational processes by solving problems in a comprehensive, systematic, and measurable manner to meet customer needs and satisfaction supported by AI.

**Topics:** Introduction to Quality Control;; Quality Management: Practices,Tools, And Standards; Reliability; Transforming Quality Engineering with Artificial Intelligence;AI-Driven Quality Engineering: The Future of QA; Application of Machine Learning in Statistical Process Control Charts; Machine Learning (ML) Techniques Based Control Charts For Process Monitoring; Application of AI;; Control Charts for Machine Learning Using Python; Process Capability Analysis

#### **ISYE6095037- E-SUPPLY CHAIN MANAGEMENT (2/2 Credits)**

**Learning Outcomes:** Recognize the key issues in creating value in supply chain using ICT tools; Analyse the changing business environment due to information technology advancement; Evaluate the business models and strategies of e-business toward value chain and Big Data Analytics in Supply chain 4.0.

**Topics:** Procedure for Modelling and Improving E-SCM Processes; Dynamic Transshipment in the Digital Age; E-Com Supply Chain and SMEs; Building and Managing Modern E-Services; Service Value Networks; Collaboration Tools in Supply Chain; Trading E-Coalition Modelling for Supply Chain; Information Feedback Approach; Supply Chain Analytics Technology for BIG Data; Big Data in Procurement 4.0: Critical Success Factors and Solutions

#### **ISYE6127037- WAREHOUSE MANAGEMENT SYSTEM (4 Credits)**

**Learning Outcomes:** Explain the role of warehouses and inventory within the supply chain and warehousing issues in an integrated logistics;Apply appropriate approaches to managing personnel, systems and processes used in the warehouse function;Evaluate and select the most suitable warehouse management system for global distribution company and logistics business operation.

**Topics:** Role of the warehouse; Outsourcing, Health and Safety and Future WMS; Warehouse processes: receiving and put-away; Warehouse processes: pick preparation, Picking strategies and equipment.;Warehouse processes from replenishment to dispatch and beyond; Warehouse management systems; Warehouse Layout; Storage and handling equipment; Warehouse costs; Performance management

#### **ISYE6187037- ENGINEERING ECONOMY AND SYSTEM ANALYSIS (4 Credits)**

**Learning Outcomes:** Explain basic engineering economy to calculate the time value of money, different between present and future worth, interest rate;Apply investment decision criteria by using economic decisions (present worth, future worth, IRR, NPV, and Payback Analysis);Apply simple data collection and analysis techniques in a broad range of industrial system engineering problems;Analyze selected systems engineering problems by applying tools, methodologies, and procedures

**Topics:** Foundation of Engineering Economics; Systems Engineering, Planning and Organization; Nominal and Effective Interest Rate; Present Worth Analysis;Future Worth and Annual Worth Analysis; Economic Decision (Rate of Return (ROR), Benefit/Cost, Break Event, and Payback Analysis); The System Design Process; Optimization in Design and Operation; Design for Usability (human Factors); Design for Logistics and Supportability

#### **ISYE6190037- FACILITY PLANNING AND SAFETY ENGINEERING (4 Credits)**

**Learning Outcomes:** Apply some engineering analysis and techniques in designing facility and flow interaction;Analyze the floor space requirement, machine and facility requirement based on layout optimization models;Utilize basic knowledge Safety, Health and Environment to control workplace hazards to prevent injuries, illness and property damage;Analyze safety management in a TQM (Total Quality Management) environment on manufacturing/service company

**Topics:** Introduction Facility Planning, Time Study & Process Design; Management of Safety and Health; Flow Analysis Techniques & Activity Relationship Analysis; Ergonomic and the Principles of Motion Economy; Receiving, Shipping, Storage and Warehousing, Material Handling & Equipment; Office Layout Techniques and Space Requirements & Area Allocation Quality in Design;Introduction Safety and Health & Accidents and Their Effects - Theories of Accident Causation; Roles and Professional Certifications for Safety and Health & Competition in the Global Marketplace; Laws and Regulations & The Human element; Hazard Assessment, Prevention, and Control

#### **ISYE6194037- ENVIRONMENTAL ENGINEERING AND WASTE MANAGEMENT (4 Credits)**

**Learning Outcomes:** Explain the emerging environmental issues in the environmental engineering process with scientific fundamentals: chemistry, biology, physics, and mathematics;Apply the fundamentals of air Pollution, Water Pollution, Noise Pollution, and Soil Quality to solve a basic environmental engineering problem;Explain

waste treatment techniques and waste management technologies; Apply the principles of environmental engineering and waste management in industrial

**Topics:** Introduction to Environmental Engineering; Industrial Hygiene; Environmental Modeling; Materials and Energy Balances; Air Pollution; Water Pollution; Noise Pollution; Soil Quality; Solid and Hazardous Waste; Waste Management

#### **ISYE6328037- HUMAN-INTEGRATED SYSTEMS AND ORGANIZATIONAL BEHAVIOUR (2/2 Credits)**

**Learning Outcomes:** Explain the concept and principles of the human integrated system and ergonomics in the workplace, both manufacturing and services company; apply the method in human-computer interaction and automation in ergonomic system; analyze the Evaluation or Testing of Human-Integrated Systems, safety in risk management in manufacturing and services company; analyze the concept and strategies about organizational behavior, development, and Leadership Challenges in the manufacturing industry and services.

**Topics:** Introduction to Human-Integrated Systems; Human Factors and Ergonomics; Anthropometry and Biomechanics; Time Study and Work Measurement; Human Performance and Workload; Human-Centered Design; Human-Computer Interaction (HCI); Systems Thinking and Analysis; Human-Robot Interaction; Adaptive Systems and Automation; Evaluation and Testing of Human-Integrated Systems; Emerging Technologies in Human-Integrated Systems; Safety and Risk Management; Cognitive Systems Engineering; Fundamentals of Organizational Behavior; Leadership Theories and Styles; Individual Behavior in Organizations; Organizational Culture and Climate; Group Dynamics and Teamwork; Leadership in Human-Integrated Systems; Communication in Organizations; Decision Making and Problem Solving; Conflict and Negotiation; Organizational Change and Development; Technology and Human-Integrated Systems; Ethics and Social Responsibility; Leadership Challenges in Human-Integrated Systems.

#### **ISYE6329037- SYSTEMS SIMULATION AND ENGINEERING DATA ANALYSIS (4 Credits)**

**Learning Outcomes:** Explain different types of models and various system simulation definitions; Utilize simulation methods and techniques for problems formulation in simulation models effectively; Explain the significance of engineering data analytics within the business and manufacturing context; Evaluate the implementation of descriptive, predictive, and prescriptive models in decision-making processes

**Topics:** Introduction to System, Model and Simulation; Input Distributions and Random Number Generators; Verification, Validation and Replication; Discrete Event Simulations (DES) & Monte Carlo Simulation; System Dynamics (SD); Agent Based Modelling and Simulation (ABMS); Data Mining and Big Data Analytics; Descriptive Analytics; Predictive Analytics; Prescriptive Analytics

#### **ISYE6330037- PRODUCTION AND OPERATION ANALYSIS (2/2 Credits)**

**Learning Outcomes:** Understand Production and Operation Analysis theories in real world case problems; Analyze production and operation procedures in an engineering environment using documentation, observation, and application methods; Demonstrate and evaluate production and operation data analysis verbally to draw conclusions in real world case problems

**Topics:** Introduction Production and Operation Analysis; Forecasting; Aggregate Planning; Capacity Planning; MPS, MRP, BOM; Lot Sizing; Inventory Control; Operation Scheduling; Project Management; Lean Manufacturing

#### **ISYE6332037- RESEARCH METHODOLOGY AND EXPERIMENTAL DESIGN (4/2 Credits)**

**Learning Outcomes:** Describe the basics of the research methodology and the research report; Use appropriate sampling and research design; Apply statistical techniques appropriate for experimental design; Analyze the interpretation of statistical calculation results and draw statistical conclusions from experiments and observations

**Topics:** Introduction to Research Methodology; Research Methods for Collecting Primary Data; Measurement and Scaling Concepts; Sampling Design and Procedure; Hypothesis Test for Mean: One sample; Comparing Two Population Means; Design of Experiment Analysis; Multivariate One Way ANOVA (MANOVA); Simple Linear Regression and Correlation; Communicating Research Results

#### **ISYE6333037- SUPPLY CHAIN: LOGISTICS AND TRANSPORTATION (4 Credits)**

**Learning Outcomes:** Describe key components of logistics activities, roles of logistics management in supply chain and operations management; Apply essential trade-offs in meeting organizational performance goals while minimizing total costs; Analyze the role of logistics management in adding value to operations management.

**Topics:** Introduction of fundamental logistics and transportation concepts in supply chain management; The four classic traffic modes for transportation of freight; Inventory management and Role of IT in Logistics; Basic transportation terminology; Unit loads and intermodal transportation; Storage and terminals; Transport networks; Actor structure and Transport policy; Environmental aspects of logistics and transportation; Humanitarian logistics.

#### **ISYE6335037- DATA SCIENCE FOR SUPPLY CHAIN ANALYSIS (4 Credits)**

**Learning Outcomes:** Understand the role of data science in optimizing and analyzing supply chains; Apply basic data science techniques (e.g., data cleaning, visualization, regression analysis) to supply chain data; Analyze data mining techniques for supply chain analysis and decision making.

**Topics:** Introduction to Data Science in Supply Chain Analysis; Fundamentals of Data Collection and Integration; Data Mining Process; Exploratory Data Analysis (EDA) in Supply Chains; Association Rule Mining; Classification Techniques for Supply Chain Segmentation; K-Nearest Neighbors (KNN) in Supply Chain; Clustering Techniques; Regression Analysis for Forecasting and Prediction; Machine Learning and AI Applications in Supply Chain Management

#### **ISYE6342037- DIGITAL TRANSFORMATION STRATEGIES (4 Credits)**

**Learning Outcomes:** Understand digital transformation foundations and the need for agile change management; Develop strategies for building AI capabilities and adapting organizations to an AI-enabled future; Apply and assess digital product platform strategies to enhance growth; Analyze human-centered design principles in digital transformations.

**Topics:** Introduction to Digital Transformation; Strategic Planning for Digital Transformation; Digital Tools and Platforms in Business Operations; Data-Driven Decision-Making and Analytics; Digital Transformation in Supply Chain and Logistics; Innovation and Emerging Technologies in Digital Transformation; Risk Management and Cybersecurity in Digital Transformation; Human-Centered Design in Digital Transformation; Organizational Culture and Change Management; Sustainable Digital Transformation and Corporate Responsibility

#### **ISYE6343037- DIGITALIZATION PRODUCT DEVELOPMENT (4 Credits)**

**Learning Outcomes:** Explain the stages of product development, from concept generation to product launch; Applies project management principles and tools to effectively plan, execute, and manage product development projects; Analyse, present, and pitch a developed product to an audience, incorporating feedback and emphasizing key product features.

**Topics:** Introduction to Product Development; Innovation and Creativity in Product Design; Market Research and User-Centered Design; Technology Integration in Product Development; Prototyping, Testing, and Feedback; Project Management in Product Development; Sustainability and Ethical Considerations; Case Studies and Industry Applications; Capstone Project.

#### **ISYE6344037- DIGITAL LOGISTICS MANAGEMENT (4 Credits)**

**Learning Outcomes:** Explain the components and functions of logistics information systems used in manufacturing and service operations; utilize digital tools and platforms to analyze logistics data and optimize supply chain processes in manufacturing and service industries; differentiate between traditional and digital supply chain management practices specific to manufacturing and services

**Topics:** Introduction to Digital Logistics Management; Information Systems in Logistics; Digital Supply Chain Management; Transportation Management in Digital Logistics; IoT Technology in Logistics; Big Data and Predictive Analytics; Last-Mile Delivery Solutions; Supply Chain Resilience and Agility; Strategy and Risk Management in Digital Logistics; Future Trends and Innovations in Digital Logistics Management.

#### **ISYE6346037- SUSTAINABLE MANUFACTURING SYSTEMS (2/2 Credits)**

**Learning Outcomes:** Explain the basic principles of sustainable manufacturing systems, including concepts such as resource efficiency, waste reduction, and the application of green technologies; Analyse the impact of conventional manufacturing systems on the environment and society and evaluate alternative, more sustainable solutions; Organising a sustainable action plan that can be implemented in the context of the manufacturing industry, considering technical, economic, and social aspects

**Topics:** Introduction to Sustainable Manufacturing Process; Sustainable manufacturing strategies in Machining; Materials development for sustainable manufacturing; Sustainable product development

process; Sustainable Development & Green Productivity; Concept of Green Productivity; Green Productivity Methodology; Tools for Green Productivity; Techniques for Green Productivity; Sustainability performance evaluation in manufacturing: theoretical and practical perspectives

**ISYE6347037- MAINTENANCE MANAGEMENT SYSTEM (4 Credits)**

**Learning Outcomes:** Describe the objectives and importance of Maintenance Management Systems in various industries; Apply continuous improvement techniques, such as root cause analysis, to identify and resolve recurring maintenance issues; Analyse and select appropriate maintenance strategies for different types of industries.

**Topics:** Introduction to Maintenance Organization; Maintenance Productivity and Performance Measurement; Methods and Tools in Maintenance; Maintenance Control Systems; Maintenance Planning and Scheduling; Maintenance Strategies; Total Productive Maintenance; Maintenance Safety, Environment and Human Error; Maintainability and System Effectiveness.

**ISYE6348037- DETERMINISTIC OPTIMIZATION & STOCHASTIC PROCESSES (4/2 Credits)**

**Learning Outcomes:** Explain objectives and constraints based on problem descriptions in mathematical optimization models; Apply some methods and the techniques used to solve linear optimization models using their mathematical structure; Apply the concept of discrete and continuous time Markov chain, transition matrices and state classifications; Analyze given problems using the concepts of Poisson process, renewal process, or queuing theory

**Topics:** Various Types of LP Models; Simplex Algorithm; Transportation Problem; Network Models; Modeling Integer Programming; Probability and Random Variables; Discrete-Time Markov Chains; Continuous-Time Markov Chains; Renewal Process; Queuing Theory

**SUBJECT AREA: ISYS****ISYS6307035- DATA AND INFORMATION MANAGEMENT (4 Credits)**

**Learning Outcomes:** Describes the concept of a database as the core information of a business organization; Use SQL to access data in the database that will be processed as information; Describes the concept of data used in artificial intelligence; Apply to successful database deployments without problems

**Topics:** Basic Concept Database and Information System; Deployment; Descriptive Analytics; Enterprise Technologies and Big Data Business Intelligence; Entity Relational Model and Enhanced Entity-Relationship (EER) Model; Functional Dependency and Normalization; SQL: Data Definition Language; SQL: Data Manipulation Language; Supervised Learning ; Introduction of IS/IT Projects (Project Management Methodologies and Processes)

**ISYS6310035- INFORMATION SYSTEMS PROJECT MANAGEMENT (4 Credits)**

**Learning Outcomes:** Explain the basic concept and principles of IS/IT Project Management, the techniques, software/tools and procedures for initiating and plan the IS/IT Project Management; Create the IS/IT Project Schedule and Budget, the project organization and the resource allocation; Monitor and control the IS/IT Project execution; Evaluate the IS/IT project risks and quality

**Topics:** Introduction of IS/IT Projects (Project Management Methodologies and Processes); Leadership and Organizational Change; Managing Project Risk and Project Quality; Measurable Organizational Value and the Business Case; Monitoring and Controlling the Project-(Managing Project Stakeholders and Communication); Project Evaluation and Closure; Project Management Software/Tools; Project Planning: Scope and the Work Breakdown Structure; Project Planning: The Project Infrastructure; Project Planning: The Schedule and Budget

**ISYS6318035- E-BUSINESS CONCEPT (4 Credits)**

**Learning Outcomes:** Describing aspects of e-business including concepts, business models, strategy, platforms and technologies; Demonstrating the practical elements of e-business with selected platforms and technologies, in a customized business model; Organizing the practical elements of e-business in a small-scale environment simulating the real e-business operation.

**Topics:** Introduction to Digital Business and Ecommerce; Digital Business Infrastructure; E-environment; Digital Business Strategy; Ecommerce Marketplace Analysis; Digital Business Supporting Applications (E-procurement,

Supply Chain Management, Customer Relationship Management); Digital Marketing; Digital Business System Development; Digital Business Analytical System; Digital Business Operation

**ISYS6319035- KNOWLEDGE MANAGEMENT (4 Credits)**

**Learning Outcomes:** Implement the knowledge management process, models, and applications; Organizing the knowledge management strategy, tools technology and planning in organization; Evaluate KM situations in order to make recommendations on KM implementation

**Topics:** Introduction to Knowledge Management; Knowledge Management Process; Knowledge Management Models; Knowledge Management Capture and Codification; Knowledge Sharing; Finding Knowledge; The Roles of Organizational Culture; Knowledge Management Tools; Knowledge Management Strategy and Planning; The Knowledge Management Team

**ISYS6327035- THESIS (6 Credits)**

**Learning Outcomes:** Design Proposed Solutions in IS to solve the problem; Apply integrated IS solutions to other business support Aspect in Organization

**Topics:** Pengecekan Softcover dan Paper; Analysis Services ; Building OLAP Cube; Data Warehouse Concept; Data Warehouse Schema; Extraction, Transformation, and Loading ; Management Reporting; Online Analytical Processing (OLAP); Power Business Intelligence; Querying Data Warehouses

**ISYS6332035- DATA WAREHOUSE (4 Credits)**

**Learning Outcomes:** Describe data warehouse concept on business organization.; Implement SQL Server as the tools of Data Warehouse.; Analyze data to information for decision support in business intelligence.

**Topics:** Data Warehouse Concept; Data Warehouse Schema; Online Analytical Processing (OLAP); Querying Data Warehouses; Extraction, Transformation, and Loading; SQL Server Installation; Building OLAP Cube; Analysis Services; Power Business Intelligence; Management Reporting

**ISYS6516035- INFORMATION SYSTEM SECURITY (4 Credits)**

**Learning Outcomes:** Identify information system security items and aspect; Explain IS security item and aspect; Understand threat and risk of information system and know how to manage them; Apply security management and practice in relation to real world condition

**Topics:** Auditing, Testing and Monitoring; IS Security introduction; Malicious Attacks, Threats, and Vulnerabilities; Malicious Code and Activity; Network Security ; Penetration Testing and Tools; Protection mechanism: Access Controls, Cryptography; Risk management and Incident response; Security management model, standard and Professional Certifications Model dan Standard; Security Operations and Administration

**ISYS6599038- MANAGEMENT INFORMATION SYSTEMS FOR LEADER (4 Credits)**

**Learning Outcomes:** Describe the concept of information system, information technology and business process in today's world.; Explain various strategies to achieve organizational competitive advantage for IS leader.; Illustrate the use of information system and information technology in the global business world.; Sketch business intelligence as a new force in facing business competition

**Topics:** Achieving Competitive Advantage with Information Systems; Achieving Operational Excellence and Customer Intimacy: Enterprise Applications; Basic IT & Network Infrastructure ; Building Information Systems; Business Information Systems in Your Career ; Databases and Information Management; E-Commerce ; Ethical Issues in Information Systems ; Global E-Business and Collaboration ; Improving Decision Making and Managing Knowledge

**ISYS6605035- BUSINESS INTELLIGENCE (4 Credits)**

**Learning Outcomes:** Sketch business intelligence as a new force in facing business competition; Organize data into information as a necessity in making business decisions support; Solve business problems based on business or organizational needs arising from information in business decision support system; Define the concept of e-business to build strategy corporate.

**Topics:** Big Data & Stream Analytics; Business Intelligence Overview; Data Visualization; Data, Information & Knowledge; Future Trends; Human Capitals; Marketing Models; Model, Methods & Analytics using LINDO

SYSTEMS;Ten Recommendations for A Highly Effective Business Intelligence Competency Center;Using the Information Evolution Model

**ISYS6699035- INFORMATION SYSTEMS ANALYSIS AND DESIGN (4 Credits)**

**Learning Outcomes:** Understand the systems analysis activities in various information systems development methodology;Apply the techniques and methods for gathering user requirements;Create a model for the requirements analysis and design systems;Evaluate system development, project management, and object-oriented design, and deploy a new system

**Topics:** Deploying the New System;Designing the Database;Designing the User Interface;Domain Modeling;From Beginning to End: An Overview of Systems Analysis and Design;Identifying User Stories and Use Cases;Investigating System Requirements;Object-Oriented Design;Project Planning and Project Management;The System Sequence Diagram

**ISYS6700035- TECHNOLOGY INFRASTRUCTURE AND SYSTEM IMPLEMENTATION (4 Credits)**

**Learning Outcomes:** Understand the basic concepts of IT Infrastructure and Foundation System Testing;Explain Emerging Technologies in IT Infrastructure;Analysis of network infrastructure, networking and documentation;Evaluation of Implementation Software Testing

**Topics:** Addressing on Network;Introduction to Networking;IT Infrastructure and Emerging Technologies;Network Infrastructure and Documentation;Software Metrics and Analytics;Software Testing—Component Level;Software Testing-Integration Level;Software Testing-Specialized Testing for Mobility;Telecommunications, the Internet, and Wireless Technology;Introduction to User Experience

**ISYS6701035- USER EXPERIENCE RESEARCH AND DESIGN (4 Credits)**

**Learning Outcomes:** Describe the essentials of designing user experience;Apply techniques for designing User Experience in System Development;Identify context for designing User Experience based on User Needs

**Topics:** Introduction to User Experience;Techniques for Designing UX : Design;Techniques for Designing UX : Envisionment;Techniques for Designing UX : Evaluation;Techniques for Designing UX : Task Analysis & Design Testing with Users;Techniques for Designing UX : Understanding;The process of Human-Centred UX Design;Ubiquitous, Mobile, and Wearable Computing;Wireframes and Annotations & Prototyping;Basic Graphical User Interface

**ISYS6703035- DIGITAL BUSINESS ANALYSIS (4 Credits)**

**Learning Outcomes:** Understand the challenge of real-world social collaboration in a global company.;Understand the needs of internal and external customers, and which are critical to the success of any transformation technology.;Apply enduring fundamental principles of collaboration and point to critical future trends.;Analyze serious challenge in the future, preparing organization to deal with them effectively.

**Topics:** Are You “Digitally Determined” or “Digitally Distraught”?;Customer-Driven Change;Digital Proficiency and Innovation;Drivers of Change & Focus and Discipline;Idea Incubation;Integrated Ecosystem;Looking Ahead: Runaway or Precipice? & AI: The Elephant in the Room;Operational Excellence;Strategy vs. Execution & Hire captains, not kings or queens;Use Case: The Smart City

**ISYS6704035- DIGITAL AND NEW MEDIA (4 Credits)**

**Learning Outcomes:** Identify Digital Business Requirement;Apply Strategic Business Model and Business Canvas;Analyze Digital Business Requirement

**Topics:** Digital Adoption;Dipping Content Creation;Discovering Your Business and Brand;E-commerce;Marketing Goes Digital;Porter Five Models;Social Media Deployment;Strategic Analysis;Uncovering Buyer Persona;Working with Social Media

**ISYS6705035- DIGITAL BUSINESS DESIGN (4 Credits)**

**Learning Outcomes:** Describe the analysis of the digital market, the electronic environment, and the digital business infrastructure;Understanding how the use of technology can improve business processes in an organization to create new lines of business.;Implementing digital business strategy in developing company strategy

**Topics:** Customer experience and service design;Customer relationship management;Digital business strategy;Digital marketing;Introduction to Digital Business;Key issues in the digital environment;Managing digital business infrastructure;Managing digital business transformation and growth hacking;Opportunity analysis for digital business and e-commerce;Supply chain and demand

#### **ISYS6706035- DIGITAL BUSINESS TRANSFORMATION (4 Credits)**

**Learning Outcomes:** Understanding Digital Business Transformation, E-commerce, and Digital Customers.; Apply Marketing Strategy Model, Social Media Marketing Strategy, Digital Marketplace Analysis, and Digital Technology Tools; Analyze Data Process Modelling, Developing E-business Plan in Web Technology, and Managing Digital Business Transformation.

**Topics:** Introduction to Digital Business Transformation; E-commerce; Marketing Strategy Model; Digital Customers; Social Media Marketing Strategy; Digital Marketplace Analysis; Digital Technology Tools Analysis; Data and Process Modelling; Developing E-business Plan in Web Technology; Managing Digital Business Transformation

#### **ISYS6707035- DIGITAL MARKETING (4 Credits)**

**Learning Outcomes:** Identify Digital Marketing Requirement; Use Digital Marketing by social media for success campaign; Analyze trending Digital marketing.

**Topics:** Understanding The Customer Journey; Choosing the Right Marketing Campaign; Capturing Traffic with Search Marketing; Leveraging The Social Web; Essential Tools for Digital Marketing Success; Delving into Data; Analyzing Content – Sharing Metrics; The Big 4 Social Media; Comparing Metrics from Different Marketing Techniques; Reviewing Ongoing Improvement for B2B Marketing

#### **ISYS6708035- ADVANCED IN DATA AND INFORMATION MANAGEMENT (4 Credits)**

**Learning Outcomes:** Describe software engineering and data collection to be managed into information for developing information systems;Implement Database Query to Framework Programming Language to Manage Information;Analyze Application Development with SDLC, Framework Programming, and Analyze tools to Powerful Applications.

**Topics:** Blade Template by Tailwind;Database and Migration;Database Engines Profile;DDL VS SDLC;Eloquent and Relationship Model;Laravel PHP Framework;Object-Oriented DBMSs & Object-Oriented Programming;Software Engineering – UML – Laravel (Framework OOP);User Authentication and Authorization;Analytical Hierarchy Process (AHP)

#### **ISYS6709035- DATA ANALYTICS (4 Credits)**

**Learning Outcomes:** Describe Data Analytics as Business Support System; Demonstrate Data Analytics by tableau tool; Analyze Data for Business Decision.

**Topics:** Evolution Of Computerized Decision Support to Business Intelligence/Analytics/Data Science; Tableau; Analytics Overview; All about Data; Data Preprocessing; Data Visualization; Connecting Your Data; Ready Your Data for Prime Time; Showcasing Data with Dashboard and Stories; Case Studies & Stories Telling.

#### **ISYS6710035- DECISION SUPPORT SYSTEMS (4 Credits)**

**Learning Outcomes:** Describe Decision Support System Concept and the tools;Implement Decision Support Method to solve the business problem.;Analyze Decision Support Method in latest enterprise system.

**Topics:** Analytical Hierarchy Process (AHP);Fuzzy Logic;Impact for Business;Inventory Model;Linear Programming;Multiple Attributes Decision Making (MADM);Network Model;Programming Algorithm;Structure Problem and Tools;Transportation and Assignment

#### **ISYS6876035- RESEARCH AND PROJECT IN INFORMATION SYSTEMS (4/2 Credits)**

**Learning Outcomes:** Explain the concept of research in Information Systems and its relation to solving organizational problems; Develop research proposals to identify and solve problems in the context of the organization; Integrate information system solutions based on research results to improve organizational performance

**Topics:** Introduction to Research in Information System; Problem Identification and Formulation; The Critical Literature Reviews; Theoretical Framework and Hypothesis Development; Elements of Research Design; Data

Processing and Analysis; Designing Research Proposals and Writing Structures; Implementation and Evaluation in IS Research; Conclusions and Recommendations; Presentation and Publication of Research Results

#### **ISYS6877035- IT GOVERNANCE AND SECURITY (4 Credits)**

**Learning Outcomes:** Apply IT governance frameworks (e.g., COBIT) to manage and align information system projects with organizational objectives; Apply risk management strategies in IT projects by identifying and mitigating potential risks to ensure project success and security; Apply regulatory and compliance standards (e.g., GDPR, HIPAA) to ensure information system projects meet legal and organizational requirements; Integrate cybersecurity best practices, such as access controls and encryption, to protect data and maintain system integrity within information system projects; Develop incident response plans to address security breaches and minimize disruption in information system operations.

**Topics:** EGIT, Alignment, Value Introduction; Business/IT Alignment; IT Business Value; COBIT Foundation; COBIT Design & Implementation; Risk Management in EGIT (ISO 31000); Information Security (ISO 27001:2022); Data Privacy (General Data Protection Regulation); National Institute of Standards and Technology (NIST)

#### **ISYS6878035- DATA MODELLING AND ANALYTICS (4 Credits)**

**Learning Outcomes:** Describe the Data Modelling Concept by Microsoft Excel; Apply Data Model to Visualize your business information; Analyze the best choice for business decisions

**Topics:** Getting Started with Data Modeling; Data Structuring for Data Models; Preparing Your Data for the Data Model; Data Modeling with Power Pivot; Communicating Insights from Your Data Model Using Dashboards; Common dashboard elements; Visualization Elements for Your Dashboard; Choosing the Right Design Themes; Publication and Deployment

#### **ISYS6879035- INFORMATION SYSTEMS MANAGEMENT, PLANNING AND INNOVATION (4 Credits)**

**Learning Outcomes:** Explain the basic concepts of information system management and planning in organizations to support business goals; Analyze aspects related to information system management and planning effectively and efficiently; Apply innovations in information systems to improve organizational performance

**Topics:** Managing in the Digital World; Gaining Competitive Advantage Through Information Systems; Managing the Information Systems Infrastructure and Services; Enabling Business-to-Consumer Electronic Commerce; Enhancing Organizational Communication and Collaboration Using Social Media; Enhancing Business Intelligence Using Big Data, Analytics, and Artificial Intelligence; Enhancing Business Processes Using Enterprise Information Systems; Strengthening Business-to-Business Relationships; Developing and Acquiring Information Systems Securing Information Systems Computer Crime

#### **ISYS6935035- ENTERPRISE BUSINESS PROCESS (4 Credits)**

**Learning Outcomes:** Explain the fundamentals of Enterprise Resource Planning (ERP) systems, including their impact on business processes and the latest trends in the ERP market.;Identify and measure the strategic objectives, adoption benefits, and key success factors for implementing ERP systems within organizations.;Apply organizational change effectively and understand the post-implementation maintenance and support issues in the ERP lifecycle.

**Topics:** Body of Knowledge and Strategic Considerations;Change Management Theories and Principles;Introduction to Enterprise System for Business Process.;Managing Business Processes Changes;Managing Human Resources and Expertise;Methodological of ERP;Organizational Issues;Post – Implementation Issues;The ERP Phenomenon;The Strategic Intent and Critical Success Factors of ERP Adoption

#### **SUBJECT AREA: LANG**

##### **LANG6031035- INDONESIAN (2 Credits)**

**Learning Outcomes:** Identify spelling errors in sentences and paragraphs;Create scientific writing;Produce an academic presentation based on the topic

**Topics:** Artikel Ilmiah;Diksi dan Definisi;Ejaan yang Disempurnakan (EYD) Edisi Kelima;Esai Akademik;Fungsi Bahasa dan Bahasa Indonesia;Kalimat Efektif;Komunikasi Akademik;Paragraf Akademik;Proposal Penelitian;Teknik Pengutipan dan Penyusunan Daftar Pustaka

##### **LANG6031036- INDONESIAN (2 Credits)**

**Learning Outcomes:** Identify spelling errors in sentences and paragraphs; Create scientific writing; Produce an academic presentation based on the topic

**Topics:** Artikel Ilmiah; Diksi dan Definisi; Ejaan yang Disempurnakan (EYD) Edisi Kelima; Esai Akademik; Fungsi Bahasa dan Bahasa Indonesia; Kalimat Efektif; Komunikasi Akademik; Paragraf Akademik; Proposal Penelitian; Teknik Pengutipan dan Penyusunan Daftar Pustaka

#### **LANG6031037- INDONESIAN (2 Credits)**

**Learning Outcomes:** Identify spelling errors in sentences and paragraphs; Create scientific writing; Produce an academic presentation based on the topic

**Topics:** Artikel Ilmiah; Diksi dan Definisi; Ejaan yang Disempurnakan (EYD) Edisi Kelima; Esai Akademik; Fungsi Bahasa dan Bahasa Indonesia; Kalimat Efektif; Komunikasi Akademik; Paragraf Akademik; Proposal Penelitian; Teknik Pengutipan dan Penyusunan Daftar Pustaka

#### **LANG6031038- INDONESIAN (2 Credits)**

**Learning Outcomes:** Identify spelling errors in sentences and paragraphs; Create scientific writing; Produce an academic presentation based on the topic

**Topics:** Artikel Ilmiah; Diksi dan Definisi; Ejaan yang Disempurnakan (EYD) Edisi Kelima; Esai Akademik; Fungsi Bahasa dan Bahasa Indonesia; Kalimat Efektif; Komunikasi Akademik; Paragraf Akademik; Proposal Penelitian; Teknik Pengutipan dan Penyusunan Daftar Pustaka

#### **LANG6031039- INDONESIAN (2 Credits)**

**Learning Outcomes:** Identify spelling errors in sentences and paragraphs; Create scientific writing; Produce an academic presentation based on the topic

**Topics:** Artikel Ilmiah; Diksi dan Definisi; Ejaan yang Disempurnakan (EYD) Edisi Kelima; Esai Akademik; Fungsi Bahasa dan Bahasa Indonesia; Kalimat Efektif; Komunikasi Akademik; Paragraf Akademik; Proposal Penelitian; Teknik Pengutipan dan Penyusunan Daftar Pustaka

#### **SUBJECT AREA: LAWS**

##### **LAWS6191038- E-COMMERCE & DATA PRIVACY LAW (4 Credits)**

**Learning Outcomes:** Identify e-commerce and data Privacy Law; Using related legislation to solve legal problem; Examine legal problem and recommend legal solution

**Topics:** Blockchain and Cryptocurrency Legal Challenges; Cybercrime in Indonesia; Data Privacy and Right to be Forgotten; Defamation and Hoax; Electronic Transaction and Electronic Contract; Financial Technology and Regulatory Sandbox; Intellectual Property Right Issue in Cyberspace; Interception and Electronic Evidence; Law and Technology; Law of Information

#### **SUBJECT AREA: MATH**

##### **MATH6158038- BUSINESS MATHEMATICS (2 Credits)**

**Learning Outcomes:** Understand the basic concepts of mathematics.; Apply the mathematical approach in the current field of business management.; Analyzing problems in the field of business management using a mathematical approach through graphics.

**Topics:** Basic Algebra; Application of Integrations; Applications and More Algebra; Functions and Graphs; Lines, Parabolas and Systems; Applications of Linear, Quadratic and Exponential Function; Matrix; Differentiation; Multivariate Calculus; Integrations

##### **MATH6233037- MATHEMATICS (4 Credits)**

**Learning Outcomes:** Explain basics concepts of logic, mathematical induction, recursion, set theory and function, Evaluate the counting and probability problems, Explain representation of graph, tree and matrices, Solve the system of linear equation, determinant, vector, and eigenvalue problems.

**Topics:** The Logic of Compound Statements and Quantitative Statements, The Logic of Compound Statements and Quantitative Statements, Sequences, Mathematical Induction, and Recursion, Set Theory, Relation and Function, Relation and Function, Counting and Probability, Graph and Trees, Vector and Matrices, Systems of Linear Equation and Determinant, Eigenvalues and Eigenvectors, Applications of Linear Algebra .

**SUBJECT AREA: MGMT**

**MGMT6072038- INTRODUCTION TO MANAGEMENT AND BUSINESS (4 Credits)**

**Learning Outcomes:** Explain principles of management and business; Demonstrate knowledge of different management and business functions; Analyze current management and business issues in diverse contexts

**Topics:** Manager in the Workplace and Managerial Challenges in The Future; Foundation of Planning and Managing Strategy; Designing Organizational Structure and Managing Groups and Teams; Motivating Employees and Being an Effective Leader; Monitoring and Controlling; Understanding Economics and How It Affects Business; How to Form a Business and Entrepreneurship Starting a Small Business; Production and Operations Management; Marketing: Developing and Implementing Customer-Oriented Marketing Plan; Financial Management

**MGMT6146038- STRATEGIC MANAGEMENT (4 Credits)**

**Learning Outcomes:** Explain the Strategic Management Process, Strategy Formulation & Implementation, Strategy Evaluation & Governance, Business Ethics, Environmental Sustainability, and Corporate Social Responsibility, Global and International Issues; Apply Strategic Management Process, Strategy Formulation & Implementation, Strategy Evaluation & Governance, Business Ethics, Environmental Sustainability, and Corporate Social Responsibility; Analyze current issues of Strategic Management in digital business transformation

**Topics:** Overview of Strategic Management - The Nature of Strategic Management; Strategy Evaluation & Governance, Business Ethics, Environmental Sustainability; Strategy Formulation – Business, Vision & The Internal Environmental; Strategy Formulation – The External Assessment; Strategy Formulation – Business Strategy; Strategy Formulation – Corporate, Merger & Acquisitions Strategies; Strategy Formulation: International & Cooperative Strategies; Strategy Formulation: Functional Strategy and Choice; Strategy Implementation – Implementing Strategies: Management & Marketing Issues; Strategy Implementation – Implementing Strategies: Finance & Accounting Issues

**MGMT6157038- HUMAN RESOURCES MANAGEMENT (4 Credits)**

**Learning Outcomes:** Demonstrate collaborative working in diverse background environment; Apply sustainability concepts to promote business growth; Apply effective communication skills

**Topics:** Overview of Human Resource Management ; Managing Global Human Resources in Small and Entrepreneurial Firms; Human Resource Policy, Strategy and Performance; Job Analysis and the Talent Management Process; Personal Planning, Recruiting, Testing, Selection, Training and Developing Employees; Performance Management and Appraisal; Managing Careers and Retention; Establishing Strategic Pay Plan, Financial Incentives, Benefits and Services; Labour Relations and Collective Bargaining; Safety, Health, and Risk Management

**MGMT6160038- GLOBAL SUPPLY CHAIN MANAGEMENT (4 Credits)**

**Learning Outcomes:** Explain the concept supply chain performance; Applying the concept supply chain practically; Analyze the concept supply chain management to solve economic and business problem

**Topics:** Aggregate Sales and Operations Planning in A Supply Chain; Coordination In a Supply Chain; Demand Forecasting in a Supply Chain; Designing Distribution Networks and Applications to Omni-Channel Retailing; Network Design in the Supply Chain and Designing Global Supply Chain Networks; Sourcing Decisions in a Supply Chain; Supply Chain Drivers and Metrics; Sustainability and Information Technology in A Supply Chain; Transportation in a Supply Chain; Understanding and Achieving Strategic Fit in A Supply Chain

**MGMT6413039- INTRODUCTION TO BUSINESS AND ECONOMICS (4 Credits)**

**Learning Outcomes:** Demonstrate basic understanding the many aspects of business functions; Apply the business economics to business decision making remains the key driving force in firm profitability; Apply the principle of Macroeconomics in explaining the Macroeconomic variables at national as well as global level

**Topics:** Managing The Business; Managing Information for Better Business Decisions; Human Resource Management; Marketing processes and Market System; The Consumer Behavior; The Economics of Firms; Market Structures; Managing Business Finances; The Macroeconomic Environment

**MGMT6448038- OPERATIONS MANAGEMENT (4 Credits)**

**Learning Outcomes:** Explain principles of operations management and managing business information.;Demonstrate knowledges of different operations management and managing business information functions.;Analyze current operations management and managing business information issues in global context.  
**Topics:** Operations, Productivity and The Global Environment Operations Strategy;Design of Goods and Services; Managing Quality;Process Strategy; Capacity and Constraint Management; Location and Layout Strategies; Human Resource and Job Design; Supply Chain Management; Aggregate Planning; Maintenance and Reliability Decisions

#### **MGMT6474038- DIGITAL BUSINESS FUNDAMENTALS (4 Credits)**

**Learning Outcomes:** Describe the digital business, e-commerce, and the key issue in the digital environment;Implement the Digital Business Strategy;Analyze the practical success factors for using digital media;Create effective digital business using analytics tools

**Topics:** Introduction to Digital Business; Managing Digital Business Transformation ;Opportunity analysis for digital business and e-commerce; Digital Business Infrastructure; Key issues in the digital environment ; Digital Business Strategies; Supply chain in digital business; Digital Marketing; E-Customer Relationship Management; Digital Service Experience

#### **MGMT6475038- SOCIAL MEDIA AND MOBILE MARKETING (4 Credits)**

**Learning Outcomes:** Identify why social media is important to businesses around the world;Apply strategies for social media platforms and social networking sites;Analyze performance monitoring in use social media marketing tools;Evaluate social media across organization

**Topics:** The Role and Importance of SMM; Social Media Marketing Plan; Goals and Strategies to Identifying Audiences; Rules of Engagement for SMM; Social Media Platforms and Social Networking Sites; Microblogging; Content Creation and Sharing: Blogging, Streaming Video, Podcasts, and Webinars; Video Marketing; Social Media Monitoring; Tools for Managing the Social Media Marketing

#### **MGMT6477038- FINANCIAL TECHNOLOGY (4 Credits)**

**Learning Outcomes:** Understand the concept of Financial Technology;Implement the Fintech concept in the organization;Analyse the value of the Fintech concept in the organization;Evaluate the value of the Fintech concept for the sustainability of the organization

**Topics:** Fintech and Banking;Financial Innovation;Experience Design;AI and Automation in Fintech;Blockchain and Cryptocurrencies;Lending and Payment services;Investment and Insurance Services;Financial Crime, Cyber Security, and Risk Management;Regtech and Regulatory Compliance;Fintech, Financial Inclusion, and sustainable finance

#### **MGMT6478038- DIGITAL HUMAN RESOURCES MANAGEMENT (4 Credits)**

**Learning Outcomes:** Understand Digital HRM in an organization;Implement strategic to technology-enabled HRM in an organization;Analyze the Digital HRM performance in an organization;Evaluate the technology enabled to HRM in an organization

**Topics:** History and Overview of Technology in HR;Data Base Concepts and Application;Design of Digital HRM in Organization;Change Management and Implementation of Digital HRM;Recruitment and Selection in Digital HRM;Utilizing Social Media and Gamification for Digital HRM;Training and Development for Digital HRM;Digital HR Metrics and Workforce Analytics;Digital HR Privacy and Security;Strategic Evaluation of Digital HRM

#### **MGMT6524038- DIGITAL BUSINESS ANALYTICS (4/2 Credits)**

**Learning Outcomes:** Understand Business Analytics; Implement Digital Business Analytics; Analyse the digital business analytics and forecasting; Assess the decision digital analytics.

**Topics:** Introduction Business Analytics; Descriptive Statistics; Data Visualization; Descriptive Data Mining; Modelling Uncertainty; Statistical Inference and Linear Regression; Time Series Analysis and Forecasting; Predictive Data Mining; Spreadsheet model and Optimization Model; Decision Analysis

#### **MGMT6525038- DIGITAL CONSUMER BEHAVIOUR (4 Credits)**

**Learning Outcomes:** Identify and use the concepts of digital consumer behavior in businesses; Analyze digital consumer behavior concepts for businesses; Evaluate the impact of digital on consumer behavior; Investigate the sustainable of digital on consumer behavior

**Topics:** Introduction to Digital Consumer Behavior; Digital Consumer Journey; Psychological Drivers of Digital Consumer Behavior; Social Influences and Consumer Communities; Social Media in Consumer Behavior; Cross-Cultural Consumer Behavior; The Role of Technology in Consumer Behavior; Digital Consumer Behavior: Today and Tomorrow; Sustainable Consumer Decision-Making; Digital Consumer Behavior in the Future

#### **MGMT6526038- DESIGN THINKING FOR PRODUCT INNOVATIONS WITH ARTIFICIAL INTELLIGENCE (4 Credits)**

**Learning Outcomes:** Explain how design thinking impacts product value in AI and autonomy contexts; Apply design thinking to explore and define the opportunities of AI; Suggest possible solutions where AI technologies enable design processes for idea generation and concept development.

**Topics:** Fundamentals of Artificial Intelligence and Design Thinking Basics; Introduction to Generative AI and Generative AI Algorithms; The Future of Generative AI in Design Thinking; Practical Applications of Generative AI in Design Thinking; Resources and Tools to Explore; Integration of Generative AI into the Ideation; Prototyping with Generative AI; Optimal Design for Radically New Products; Business Model Design; Consumer Response and Values.

#### **MGMT6527038- DIGITAL TRANSFORMATION AND BUSINESS STRATEGY (4 Credits)**

**Learning Outcomes:** Explain why digital transformation primarily challenges strategy and mindset over technology; Examine digital transformation across different dimensions of the business system; Analyze the strategic implications of digital disruption.

**Topics:** Business Scope and Model; Platforms and Ecosystems; Rethinking R&D and Innovation; Operational Excellence; Omnichannel Strategy; Acquiring and Engaging Consumers; Measuring and Optimizing Marketing Spend; Managing Digital Transition; Designing an Organization for Innovation; Skills, Capability, and Talent Management.

#### **MGMT6528038- AGILE PROJECT MANAGEMENT (2/2 Credits)**

**Learning Outcomes:** Understand Agile Project Management Fundamentals; Apply agile planning techniques to set up an Agile project framework; Analyze the effectiveness of Agile leadership strategies; Evaluate agile leadership and stakeholder engagement.

**Topics:** Agile Project Management Essentials; Adopting an Agile Approach to Project Management; Leading Projects; Using Kanban and Scrum Essentials; Agile Planning: Project Initiating and Requirements Gathering; Agility Management; Planning and Monitoring Iterations on an Agile Project; Leading an Agile Team; Managing Stakeholder Engagement on an Agile Project; Ensuring Delivery of Value and Quality in Agile Projects

#### **MGMT6555038- DIGITAL MANAGEMENT (4 Credits)**

**Learning Outcomes:** Able to explain principles of management and business; Able to demonstrate knowledge of different management and business functions; Able to analyze current management and business issues in diverse contexts

**Topics:** Digital Management and Managerial Challenges in the Workplace; Financial Management; Foundation of Planning and Managing Strategy; Monitoring and Controlling; Understanding Economics and Impacts on Business Through Digital Media Convergence ; How to Form a Business and Entrepreneurship Starting a Small Business; Production and Operations Management; Driving Business Growth: Crafting Customer-Centric Marketing Strategies and Maximizing Digital Transformation Returns

#### **MGMT6560037- LEADERSHIP AND GLOBAL INDUSTRIAL STRATEGIC (4 Credits)**

**Learning Outcomes:** Demonstrate knowledge of the role of the leader in developing and implementing strategy; Analyze global intelligence data through strategic intelligence gathering and analysis in a rapidly evolving international environment; Formulate and implement a comprehensive strategic roadmap to strategy formulation.

**Topics:** Strategic Leadership; Strategic Intelligence Gathering and Analysis; Strategy Formulation: The Initial Parameters and The Power of Driving Force; Strategy Formulation: Completing the Roadmap; The Bridge to Implementation; Strategic Master Project Planning; Implementation: Aligning the Infrastructure, Strategy, Culture,

and Performance; Implementation: Communicating Strategy; Monitoring the Strategy; Strategy Reviewing and Updating.

**MGMT6561038- PROJECT MANAGEMENT (4/2 Credits)**

**Learning Outcomes:** Explain the basic concepts and principles of project management; Demonstrate Leadership, project manager, project team building, risk management; Analyse Cost Estimation, network planning and project scheduling

**Topics:** Project Management and The Organizational Context; Project Selection and Portfolio Management, Leadership and The Project Manager; scope management; Project Scheduling: Networks, Duration Estimation, And Critical Path; Project Scheduling: Lagging, Crashing, and Activity Networks; Cost Estimation and Budgeting; Resource Management and Project team Building; Project risk management; Advanced Topics in Planning and Scheduling: Agile and Critical Chain; Project Evaluation, Control and Closeout

**SUBJECT AREA: MKTG**

**MKTG6113038- MARKETING MANAGEMENT (4 Credits)**

**Learning Outcomes:** Describe the concept of marketing and consumer-business buyer behavior; Apply the marketing strategy; Analyse the marketing issues in global business

**Topics:** Marketing: Creating Customer Value and Engagement; Sustainable Marketing Strategy; Company and Marketing Strategy: Partnering to Build Customer Engagement, Value, and Relationships; Analyzing the Marketing Environment and Managing Marketing Information to Customer Insights; Consumer Markets & Buyer Behavior, and Business Markets & Business Buyer Behavior; Customer-Driven Marketing Strategy: Creating Value for Target Customers; Product, Services, and Brand Strategy; Pricing Strategy; Marketing Channel Strategy; Engaging Customer and Communicating Customer Value: Integrated Marketing Communication

**MKTG6125038- RETAIL AND MERCHANDISING (4 Credits)**

**Learning Outcomes:** Describe the world of retailing; Apply the concept of retail and merchandising; Analyze the retail strategy; Design Merchandise processes, store layout, and Visual Merchandising

**Topics:** Introduction to The World of Retailing and Types of Retailers; Human Resource and Store Management, and Store Layout, Design, and Visual Merchandising; Consumer Behaviour; Customer relationship Management, and Customer Service; Digital Retailing, and Multichannel and Omnichannel Retailing; Information Systems and Supply Chain Management; Retail Market Strategy and Financial Strategy; Retail Location, and Retail Site Locations; Retail Pricing and Retail Communication Mix; Managing the Merchandise Planning Process and Buying Merchandise

**MKTG6332038- MARKET RESEARCH AND BUSINESS PLAN (2/2 Credits)**

**Learning Outcomes:** Explain the concept of market research as an empirical studies, and business growth in organizations; Apply business plan as an entrepreneurial concepts in the development of a start-up business; Design Plan to Work in Business

**Topics:** Introducing Market and social research; Qualitative Research and Quantitative research; Research Design Formulation, Data Collection, Preparation, Analysis, and Reporting; The Successful Business; Starting and Making Plan Compelling, and Marketing Plan & Sales Strategy; Executive Summary, Company Description, Industry Trends & Competition Analysis; Operations, Strategic Position & Risk Assessment, and Financial; Management, and Organization, Social Responsibility, and Sustainability; Successful Business Plan and Presentation

**SUBJECT AREA: RSCH**

**RSCH6024038- THESIS (6 Credits)**

**Learning Outcomes:** Analyze the research problems in the field of management and the background of research.; Evaluate relevant theories to discuss research problems.; Creating the research proposal based on phenomena, literature review and research methodology to solve research problems.; Analyzing research results quantitatively and qualitatively.; Evaluate research data to solve research problems; Creating the results of research as a whole based on research problems in the field of management.

**Topics:** Final Review and Revision, Finalizing article; Article review

**RSCH6494037- THESIS (6 Credits)**

**Learning Outcomes:** Apply the industrial engineering tools and techniques in solving the industrial problems; Discuss the results finding using relevant industrial engineering methods; Write the working paper using relevant paper template from Scopus conference journal

**Topics:** Discussion on Thesis and thesis paper

**SUBJECT AREA: SCIE****SCIE6057037- CHEMISTRY AND BIOLOGY (4 Credits)**

**Learning Outcomes:** Explain the Physiology of Human body, Nervous system and its functions; Analyze the Movement system and applications on the Manufacturer industrial and Services; Apply the Basic, Principal and Application of Chemical reaction and Chemical energy; Analyze the function of Chemical reaction, Environmental chemistry and Implementation on Industrial

**Topics:** Anatomy of Human Skeleton System; Electrochemistry And Environmental Chemistry; Human Joints and Muscular System; Human Nerve System; Human Consciousness and Neurological Disorders; Sensorimotor System and Control of Movement; Molecule, Stoichiometry and Gas; Chemical Bonding, Energy and Chemistry; Chemical Kinetics And Chemical Equilibrium; Acids and Bases Solution

**SCIE6091037- PHYSICS (2/2 Credits)**

**Learning Outcomes:** Utilize the physical quantities, system units and its conversion and the behaviors of physical quantities.; Identify and explain the basic concept of motion, why and how an object move and application of work, energy and energy conservation law.; Identify and explain the basic concept of heat and temperature and the first law of thermodynamic; Identify and explain the basic concept of electric charge, electric field, electric potential; capacitors and capacitance, current and circuit; and its application; Identify and explain the basic concept of magnetic field, induction and inductance, and its application.

**Topics:** Physical quantities and its unit and vector operations; Force and motion – 1; Force and motion - 2; Work & Energy; Heat, Temperature and The First Law of Thermodynamics; Electric charge and Electric field; Electric potential and capacitor; Electric current and resistance and its circuits; Magnetic force and magnetic field; Induction and inductance

**SUBJECT AREA: STAT****STAT6123038- BUSINESS STATISTICS AND RESEARCH METHODOLOGY (4/2 Credits)**

**Learning Outcomes:** Explain the concept of methodology in business research; Apply statistical techniques in business research; Analyze problems in business research; Create research in business and management

**Topics:** Introduction to Business Research; Theoretical Framework and Hypothesis; The Element of Research Design; Measurement of Variables; Data Collection Methods and Sampling; Quantitative Data Analysis; Linear Regression; Structural Equation Modeling (SEM); Nonparametric Methods; The Research Report

**STAT6174037- PROBABILITY THEORY AND APPLIED STATISTICS (4 Credits)**

**Learning Outcomes:** Understand the use of probability theory, concepts & statistical methods to real-world industrial engineering problems.; Analyze & Evaluate statistical inference principles to statistical decision making about product and process design; Able to apply and analyze data using statistical software.; Interpret statistical testing result accurately and communicate findings effectively.

**Topics:** Introduction to Applied Statistics & Probability; Statistical Quality Control; Random Variables & Probability Distributions; Parametric and Non-Parametric Statistical Tests; Fundamental of Sampling Distributions & Data Descriptions; Tests of Hypothesis for a single sample; Statistical Inference for Two Sample; Design and Analysis of Single Factor Experiments; Design of Experiments with Several Factors (Factorial Experiments); Linear Regression & Correlation

**SUBJECT AREA: TAXN****TAXN6028039- INTERNATIONAL TAXATION (4 Credits)**

**Learning Outcomes:** Explain International taxation and double taxation issues related to international taxation; Analyze International tax avoidance and nondiscrimination principles and process of double tax avoidance agreement: tax planning, treaty shopping, beneficial owner, controlled foreign corporation, thin capitalization; Analyze International tax issues on PE and business profits; Explain International Taxation of

Shipping and Air Transportation of international taxation; Analyze passive income, capital gain, personal income, and other income of international tax issues

**Topics:** Dependent and independent personal service (part 1); Dependent and independent personal service (part 2); Double tax avoidance agreement model; Introduction of International Taxation in Indonesia; Passive income and capital gain (part 1); Passive income and capital gain (part 2); Permanent establishment and Business Profit; Shipping and Air Transportation; Tax haven countries and advance Pricing Agreement; Transfer pricing, Tax Planning, Treaty Shopping, beneficial owner, controlled foreign corporation and special purpose and thin capitalization

#### **TAXN6032039- TAXATION (4 Credits)**

**Learning Outcomes:** Explain general provisions and tax procedures in Indonesia.; Analyze tax subject and tax object, deductible and non deductible expenses, and specific income taxes applied for income tax calculation.; Calculate specific income taxes and annual income tax; Calculate and Prepare fiscal reconciliation and annual income tax return.; Calculate tax on land and buildings; and tax on acquisition of land and buildings.; Calculate VAT and sales tax on luxury goods regulation in Indonesia.

**Topics:** Corporate annual tax return preparation (SPT) ; Fiscal reconciliation and annual corporate income tax ; General provisions and tax procedures; Income Tax Article 21; Income Tax Article 22 , 23; Income Tax Article 24, 25 and 26; Overview of Income tax and Final Income tax; Tax on land and buildings and Tax acquisitions of land and buildings; VAT and sales tax on luxury goods part 1; VAT and sales tax on luxury goods part 2

#### **TAXN6041039- TAX MANAGEMENT AND STRATEGY (4 Credits)**

**Learning Outcomes:** Explain overview of Tax Management and understand about effective cash management on tax; Describe corporate income tax management strategies; Apply corporate withholding tax management based on tax regulation in Indonesia.; Apply VAT and Sales Tax on luxury goods management based on tax regulation in Indonesia

**Topics:** Aspect and Factors on Tax Management Implementation; Corporate Tax Management Organization; Effective Cash Management on Tax; Income Tax Management Strategy; Method selection and fiscal reconciliation; Overview of Tax Management; Tax Management on Sales Tax on Luxury Goods; Tax Management on VAT; Withholding tax planning; Withholding tax provisions

#### **TAXN6069039- TAXATION ACCOUNTING (4 Credits)**

**Learning Outcomes:** Explain the difference between accounting and tax accounting, and also the basic principles of tax accounting, and the ability to explain tax procedures in Indonesia.; Explain tax accounting for assets, liabilities and equities; Explain tax accounting treatment for specific transactions.; Prepare fiscal reconciliation for annual tax return reporting.

**Topics:** Convergence of Accounting Standards, Taxation Regulation and Basic Principles of Tax Accounting ; Current Assets and Fixed Assets Accounting; Expenses and Loss Compensation; Fiscal Reconciliation; Income Taxes Accounting; Intangible Assets Accounting ; Liabilities, Investments, Equities and Foreign Currency Accounting ; Rent and Construction Accounting ; Revaluation and Business Combination; VAT and Tax on Luxury Goods Accounting

#### **TAXN6071039- TAX AUDIT, TAX DISPUTE AND TAX COURT (4 Credits)**

**Learning Outcomes:** Explain tax audit procedure and techniques on specific tax return; Describe about tax crime and tax investigation treatment in accordance with tax regulations; Analyze procedures of law enforcement and tax court in accordance with tax regulations.

**Topics:** Overview of Tax Audit; Tax Audit Procedures; Tax Audit Techniques Monthly VAT Tax Return; Tax Audit Techniques Annual Income Tax Return; Tax Audit Guideline on Taxpayer With Special Relationship; Tax Crime; Tax Investigation; Tax Objection, Appeal and Tax Review ; Tax Lawsuit; Tax Court.

#### **TAXN6072039- TAXATION LABORATORY (2/2 Credits)**

**Learning Outcomes:** Calculate income tax article 21/26, 22, and 23/26 in accordance with applicable tax regulations; Calculate final income tax article 4(2), and 15 in accordance with applicable tax regulations; Prepare

eBupot for income tax article 21/26 and PPh Unifikasi for income tax article, 22, 23/26, 4(2) and 15 in accordance with applicable tax regulations; Calculate corporate income tax and VAT and Tax on sales of luxury goods in accordance with applicable tax regulations; Prepare eForm for corporate annual income tax and eFaktur and web eFaktur for VAT and Tax on Sales of Luxury Goods in accordance with applicable tax regulations.

**Topics:** Calculation of income tax article 21/26; e Bupot for income tax article 21/26; Calculation of income tax article 22, and 23/26 ; Calculation of income tax article 4(2) and 15; PPh Unifikasi for income tax article 22, and 23/26, 4 (2) and 15; Corporate fiscal reconciliation; Calculation of corporate income tax; eForm for Corporate Tax; Calculation of VAT and Tax on Sales of Luxury Goods; eFaktur and web eFaktur for VAT and Tax on Sales of luxury goods.