

## Bachelor of Science Program in Information Technology

### Study Plan for 651-xxxx students onward

(132 credits)

#### Year 1, Semester 1

<b>Course Title</b>	<b>Credits</b>
Communicative English I	3 (3-2-6)
Business Exploration	3 (3-0-6)
Fundamentals of Computer Programming	3 (3-0-6)
Introduction to Information Technology	3 (3-0-6)
Mathematics for Business OR Business Mathematics and Statistics	3 (3-0-6)
<b>Total</b>	<b>15 (15-2-30)</b>

#### Year 1, Semester 2

<b>Course Title</b>	<b>Credits</b>
Communicative English II	3 (3-2-6)
Object-Oriented Concepts and Programming	3 (3-0-6)
UI/UX Design and Prototyping	3 (3-0-6)
Design Thinking	3 (3-0-6)
Business Systems	3 (3-0-6)
<b>Total</b>	<b>15 (15-2-30)</b>

#### Year 2, Semester 1

<b>Course Title</b>	<b>Credits</b>
Academic English	3 (3-2-6)
Mathematics and Statistics for Data Science	3 (3-0-6)
Data Structures and Algorithms	3 (3-0-6)
Computer Networks	3 (3-0-6)
Data Science	3 (3-0-6)
Software Engineering	3 (3-0-6)
<b>Total</b>	<b>18 (18-2-36)</b>

#### Year 2, Semester 2

<b>Course Title</b>	<b>Credits</b>
Advanced Academic English	3 (3-2-6)

Ecology and Sustainability	3 (3-0-6)
Cloud Computing	3 (3-0-6)
Presentation and Data Visualization Techniques	3 (3-0-6)
Database Management Systems	3 (3-0-6)
One Major Elective Course	3 (3-0-6)
<b>Total</b>	<b>18 (18-2-36)</b>

### **Year 3, Semester 1**

<b>Course Title</b>	<b>Credits</b>
Communication in Thai	3 (3-0-6)
Thai Usage	3 (3-0-6)
Thai Language for Intercultural Communication	3 (3-0-6)
Information Systems Analysis and Design	3 (3-0-6)
Information Systems Security	3 (3-0-6)
Two Major Elective Courses	6 (6-0-12)
One Free Elective Course	3 (3-0-6)
<b>Total</b>	<b>18 (18-0-36)</b>

### **Year 3, Semester 2**

<b>Course Title</b>	<b>Credits</b>
Human Heritage and Globalization	3 (3-0-6)
IT Project Management	3 (3-0-6)
Senior Project I	3 (0-9-0)
Two Major Elective Courses	6 (6-0-12)
One Free Elective Course	3 (3-0-6)
<b>Total</b>	<b>18 (15-9-30)</b>

### **Year 4, Semester 1**

<b>Course Title</b>	<b>Credits</b>
Ethics	3 (3-0-6)
Four Major Elective Courses	12 (12-0-24)
One Free Elective Course	3 (3-0-6)
<b>Total</b>	<b>18 (18-0-36)</b>

### **Year 4, Semester 2**

<b>Course Title</b>	<b>Credits</b>
Senior Project II	3 (0-9-0)
Two Major Elective Courses	6 (6-0-12)
One Free Elective Course	3 (3-0-6)

**Total**

**12 (9-9-18)**

### **List of Major Elective Courses**

\* Students are required to choose one concentration out of 6 concentrations and study 5 subjects (15 credits) from the chosen concentration and study 6 subjects (18 credits) from all major elective courses.

\*\* Students are also required to study at least 5 CSX and/or ITX subjects (15 credits) out of 11 major elective courses (33 credits).

#### **Major Elective Courses**

##### **Group 1(A): Software Engineering and Development**

CSX 4107 Web Application Development	3 (3-0-6)
CSX 4109 Android Application Development	3 (3-0-6)
ITX 4103 Requirement Engineering	3 (3-0-6)
ITX 4104 Software Testing	3 (3-0-6)
ITX 4110 Enterprise System Integration	3 (3-0-6)
ITX 4111 Software Architectures	3 (3-0-6)
ITX 4518 Blockchain and Digital Currencies	3 (3-0-6)
ITX 4180-4199 Selected Topic [in Software Engineering]	3 (3-0-6)

##### **Group 1(B): Informatics and Data Science**

CSX 4201 Artificial Intelligence Concepts	3 (3-0-6)
CSX 4202 Data Mining	3 (3-0-6)
CSX 4211 Data Engineering	3 (3-0-6)
ITX 4212 Predictive Analytics	3 (3-0-6)
ITX 4213 Artificial Intelligence for Business	3 (3-0-6)
ITX 4214 Data Science Project Management	3 (3-0-6)
ITX 4215 Business Insights and Visualization	3 (3-0-6)
ITX 4280-4299 Selected Topic [in Data Science]	3 (3-0-6)

##### **Group 1(C): Innovative Marketing Technology**

CA 1103 Computer Graphic Design	3 (2-2-5)
CA 2110 Media Literacy and Ethical Concerns	3 (3-0-6)
CA 3100 Consumer Insight and Tools	3 (3-0-6)
CA 3111 Creative Entrepreneurial Project Management	3 (2-2-5)
ITX 4213 Artificial Intelligence for Business	3 (3-0-6)
ITX 4215 Business Insights and Visualization	3 (3-0-6)
ITX 4518 Blockchain and Digital Currencies	3 (3-0-6)

ITX 4900-4909 Selected Topic [in Marketing Technology]	3 (3-0-6)
<b>Group 1(D): Innovative Food Technology</b>	
FT 4144 Food Ingredients Functionality	3 (3-0-6)
FT 4152 Bioinformatics for Food Technology	3 (3-0-6)
FT 4153 Integrated IOT to Smart and Green Food Industry	3 (3-0-6)
FT 4154 Intelligent Packaging Technology	3 (3-0-6)
ITX 4213 Artificial Intelligence for Business	3 (3-0-6)
ITX 4215 Business Insights and Visualization	3 (3-0-6)
ITX 4518 Blockchain and Digital Currencies	3 (3-0-6)
ITX 4910-4919 Selected Topic [in Food and Agriculture Technology]	3 (3-0-6)
<b>Group 1(E): Innovative Music Technology</b>	
MB 3541 Online Social Media for Music Business	3 (3-0-6)
MB 3550 Feasibility Study for Music Entrepreneur	3 (3-0-6)
MB 3551 Creative Music Entrepreneurship	3 (3-0-6)
ITX 4213 Artificial Intelligence for Business	3 (3-0-6)
ITX 4215 Business Insights and Visualization	3 (3-0-6)
ITX 4518 Blockchain and Digital Currencies	3 (3-0-6)
ITX 4920-4929 Selected Topic [in Music Innovation]	3 (3-0-6)
<b>Group 1(F): Innovative Financial Technology</b>	
IBE 2103 Business Finance	3 (3-0-6)
IBE 3101 Business Analysis	3 (3-0-6)
BFN 3211 Investment Strategy and Applied Valuation	3 (3-0-6)
BFN 4314 Personal Wealth Management and Financial Planning	3 (3-0-6)
BFN 4421 Portfolio Management and Analysis	3 (3-0-6)
BFN 4431 Startup Finance and FinTech	3 (3-0-6)
ITX 4213 Artificial Intelligence for Business	3 (3-0-6)
ITX 4215 Business Insights and Visualization	3 (3-0-6)
ITX 4518 Blockchain and Digital Currencies	3 (3-0-6)
ITX 4930-4939 Selected Topic [in Finance and Insurance Technologies]	3 (3-0-6)
<b>Group 2</b>	
CSX 4108 iOS Application Development	3 (3-0-6)
CSX 4205 Big Data Analytics	3 (3-0-6)
CSX 4306 Internet of Things	3 (3-0-6)
CSX 4407 Enterprise Application Development	3 (3-0-6)
CSX 4514 Cross-platform Application Development	3 (3-0-6)

ITX 4106 Enterprise Architectures	3 (3-0-6)
ITX 4307 Business Continuity Planning and Management	3 (3-0-6)
ITX 4403 Manufacturing Management System	3 (3-0-6)
ITX 4404 Supply Chain Management System	3 (3-0-6)
ITX 4502 Tech Startup	3 (3-0-6)
ITX 4504 Digital Marketing	3 (3-0-6)
ITX 4505 Digital Transformation	3 (3-0-6)
ITX 4507 Information Retrieval and Search Engines	3 (3-0-6)
ITX 4508 Quantitative Research for Digital Business	3 (3-0-6)
ITX 4509 Cybersecurity	3 (3-0-6)
ITX 4510 Data Policies and Governance	3 (3-0-6)
ITX 4511 Internet of Behaviors	3 (3-0-6)
ITX 4512 Marketing Automation Systems	3 (3-0-6)
ITX 4513 Social Media Analytics	3 (3-0-6)
ITX 4517 Software Configuration Management	3 (3-0-6)
ITX 4519 Internetworking Workshop	3 (3-0-6)
ITX 4600-4699 Selected Topics	3 (3-0-6)