

**Bachelor of Science Program in Information Technology**  
**Study Plan for 621-xxxx students onward**  
**(132 credits)**

**First Year, First Semester**

Prerequisite	Course No.	Course Title	Credits	(Lecture-Lab-Self Study)
-	BG 1001	English I	3	(2-3-6)
-	MGT 1101	Introduction to Business	3	(3-0-6)
-	ITX 1001	Basic Mathematics and Statistics	3	(3-0-6)
-	ITX 3001*	Fundamentals of Computer Programming	3	(3-0-6)
-	ITX 3002*	Introduction to Information Technology	3	(3-0-6)
<b>Total</b>			<b>15</b>	<b>(14-3-30)</b>

**First Year, Second Semester**

Prerequisite	Course No.	Course Title	Credits	(Lecture-Lab-Self Study)
BG 1001	BG 1002	English II	3	(2-3-6)
-	BG 1400	Business Law I	3	(3-0-6)
ITX 3001	ITX 2001	Object-Oriented Concepts and Programming	3	(3-0-6)
ITX 1001	ITX 2002	Calculus	3	(3-1-7)
ITX 1001	ITX 2003	Principles of Statistics	3	(3-1-7)
-	ITX 2004	UI/UX Design and Prototyping	3	(3-0-6)
<b>Total</b>			<b>18</b>	<b>(17-5-38)</b>

**Second Year, First Semester**

Prerequisite	Course No.	Course Title	Credits	(Lecture-Lab-Self Study)
BG 1002	BG 2000	English III	3	(2-3-6)
-	ITX 2005	Design Thinking	3	(3-0-6)
ITX 2003	ITX 2006	Mathematics and Statistics for Data Science	3	(3-1-7)
ITX 2001	ITX 2010	Data Structure and Algorithms	3	(3-0-6)
ITX 3002	ITX 3003*	Business Systems	3	(3-0-6)
-	ITX 3005*	Computer Networks	3	(3-0-6)
<b>Total</b>			<b>18</b>	<b>(17-4-37)</b>

**Second Year, Second Semester**

Prerequisite	Course No.	Course Title	Credits	(Lecture-Lab-Self Study)
BG 2000	BG 2001	English IV	3	(2-3-6)
-	ACT 1601	Fundamental of Financial Accounting	3	(3-0-6)
ITX 2006	ITX 2007	Data Science	3	(3-0-6)
-	ITX 2009	Presentation and Data Visualization Techniques	3	(3-0-6)
ITX 2001	ITX 3006*	Database Management Systems	3	(3-0-6)
See the list below	<b>One Major Elective Course</b>		3	(3-0-6)
<b>Total</b>			<b>18</b>	<b>(17-3-36)</b>

\* Major Required Course: Students must get grade C or better.

### Third Year, First Semester

Prerequisite	Course No.	Course Title	Credits	(Lecture-Lab-Self Study)
-	ITX 2008	Cloud Computing	3	(3-0-6)
-	ITX 3004*	Information System Analysis and Design	3	(3-0-6)
-	ITX 3007*	Software Engineering	3	(3-0-6)
-	ITX 3008*	IT Project Management	3	(3-0-6)
See the list below	<b>Two Major Elective Courses</b>		6	(6-0-12)
	<b>Total</b>		<b>18</b>	<b>(18-0-36)</b>

### Third Year, Second Semester

Prerequisite	Course No.	Course Title	Credits	(Lecture-Lab-Self Study)
-	GE 2202	Ethics	3	(3-0-6)
3 <sup>rd</sup> year & 72 credits	ITX 3009*	Senior Project I	3	(3-0-6)
See the list below	<b>Two Major Elective Courses</b>		6	(6-0-12)
	<b>One Free Elective Course</b>		3	(3-0-6)
	<b>Total</b>		<b>15</b>	<b>(15-0-30)</b>

### Fourth Year, First Semester

Prerequisite	Course No.	Course Title	Credits	(Lecture-Lab-Self Study)
See the list below	<b>Two General Education Courses</b>		6	(6-0-12)
See the list below	<b>Three Major Elective Courses</b>		9	(9-0-18)
	<b>One Free Elective Course</b>		3	(3-0-6)
	<b>Total</b>		<b>18</b>	<b>(18-0-36)</b>

### Fourth Year, Second Semester

Prerequisite	Course No.	Course Title	Credits	(Lecture-Lab-Self Study)
4 <sup>th</sup> year & 100 credits	ITX 3010*	Senior Project II	3	(3-0-6)
See the list below	<b>Two Major Elective Courses</b>		6	(6-0-12)
	<b>One Free Elective Course</b>		3	(3-0-6)
	<b>Total</b>		<b>12</b>	<b>(12-0-24)</b>

### List of General Education Courses

Prerequisite	General Education Course	Prerequisite	General Education Course
-	ECO 2200 Introduction to Economics	-	GE 2105 Introduction to World Religion
-	GE 1101 Thai Civilization	-	GE 2106 Logical Thinking and Application
-	GE 1102 Introduction to Philosophy	-	GE 2107 Applied Philo. in Social Sci. and Humanities
-	GE 1203 Society, Politics and Economics	-	GE 2203 Art of Living
-	GE 1205 ASEAN Ways	-	GE 2205 Communication and Multicultural society
-	GE 1206 Philosophy of Sufficiency Economy	-	GE 2206 Personality Development
-	GE 1207 Fundamental Psychology	-	GE 2207 Sport, Health and Wellness Development
-	GE 1301 Environmental Science	-	GE 2208 Thai Politics and Government
Thai Students	GE 1403 Communication in Thai	-	GE 2301 Lifestyles in Dynamic World
Non-Thai Students	GE 1405 Thai Language and Culture	-	GE 2302 Climate Change and Human Life
-	GE 1406 Burmese Language	-	GE 2303 Building Brilliant Brain
-	GE 1407 Russian Language	-	GE 3401 Public Speaking in Thai
-	GE 2101 World Civilization	-	MA 1200 Mathematics for Business
-	GE 2103 Art of Reasoning	-	MGT 2404 Managerial Psychology
-	GE 2104 Thai Buddhism		

## List of Major Elective Courses

Students are required to choose one concentration out of 4 concentrations (in Group 1) and study 5 subjects (15 credits) from the chosen concentration and study 5 subjects (15 credits) from all major elective courses.

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

Prerequisite	Major Elective Course	Prerequisite	Major Elective Course
ITX 3004	ITX 4103 Requirement Engineering	ITX 2001	ITX 4107 Web Application Development
ITX 3004	ITX 4104 Software Testing	ITX 2001	ITX 4108 iOS Application Development
-	ITX 4106 Enterprise Architecture	ITX 2001	ITX 4109 Android Application Development

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

Prerequisite	Major Elective Course	Prerequisite	Major Elective Course
ITX 2001	ITX 4201 Artificial Intelligence Concepts	ITX 2006 & 3006	ITX 4206 Data Warehousing and Bus. Intelligence
ITX 2001	ITX 4202 Data Mining	ITX 2006	ITX 4207 Decision Support and Recomm. Systems
ITX 2001	ITX 4203 Machine Learning	ITX 4203	ITX 4208 Deep Learning
ITX 2001	ITX 4204 Biometrics	ITX 2001	ITX 4209 Intelligent System Development
ITX 2006	ITX 4205 Big Data Analytics	ITX 2001	ITX 4210 Natural Lang. Proc. and Social Interactions

### Group 1(C): Network Technology and Infrastructure

Prerequisite	Major Elective Course	Prerequisite	Major Elective Course
ITX 3005	ITX 4301 Network Design	ITX 3005	ITX 4305 Heterogeneous Wireless Networks
-	ITX 4302 Cisco Networking Workshop	ITX 3005	ITX 4306 Internet of Things
ITX 3005	ITX 4303 Network Security	-	ITX 4307 Bus. Continuity Planning and Management
ITX 3005	ITX 4304 Network Management		

### Group 1(D): Enterprise Systems

Prerequisite	Major Elective Course	Prerequisite	Major Elective Course
ITX 3003	ITX 4402 Sales and Distribution Mgt. System	ITX 3003	ITX 4406 Customer Relationship Mgt. System
ITX 3003	ITX 4403 Manufacturing Management System	ITX 3006	ITX 4407 Enterprise Application Development
ITX 3003	ITX 4404 Supply Chain Management System	ITX 3006	ITX 4408 Enterprise Database System
ITX 3003 & ACT 1601	ITX 4405 Finance and Accounting Infor. System	-	ITX 4409 Blockchain Technology

### Group 2

Prerequisite	Major Elective Course	Prerequisite	Major Elective Course
-	ITX 4502 Tech Startup	ITX 2010	ITX 4506 Image Processing
-	ITX 4503 Information System Security	-	ITX 4507 Information Retrieval and Search Engines
-	ITX 4504 Digital Marketing	ITX 2003	ITX 4508 Quantitative Research for Digital Business
-	ITX 4505 Digital Transformation	3 <sup>rd</sup> /4 <sup>th</sup> year	ITX 4600-4699 Selected Topics