

Bachelor of Science Program in Applied Informatics

Study Plan for 673-xxxx students onward

(126 Credits)

Year 1, Semester 1

Course Code	Course Title	Credits
ELE 1001	Communicative English I	3 (3-0-6)
CSX 3001	Fundamentals of Computer Programming	3 (3-0-6)
ITX 1007	Data Analytics for Entrepreneurs	3 (2-2-5)
ITX 2009	Presentation and Data Visualization Techniques	3 (3-0-6)
ITX 3002	Introduction to Information Technology	3 (3-0-6)
	One GE Elective Course 1	3 (3-0-6)
Total		18 (18-0-36)

Year 1, Semester 2

Course Code	Course Title	Credits
ELE 1002	Communicative English II	3 (3-0-6)
EG 1004	Artificial Intelligence for Beginners	3 (3-0-6)
ITX 2011	Mathematical Foundations for Informatics	3 (3-0-6)
ITX 3003	Business Systems	3 (3-0-6)
	One GE Elective Course 2	3 (3-0-6)
	One GE Elective Course 3	3 (3-0-6)
Total		18 (18-0-36)

Year 2, Semester 1

Course Code	Course Title	Credits
ELE 2000	Academic English	3 (2-3-6)
EG 1003	Introduction to Internet of Things (IoT)	3 (3-0-6)
CSX 3005	Computer Networks	3 (3-0-6)
ITX 3004	Information System Analysis and Design	3 (3-0-6)
ITX 3006	Database Management Systems	3 (3-0-6)
CE 4310	Introduction to Financial Technology	3 (3-0-6)
Total		18 (18-0-36)

Year 2, Semester 2

Course Code	Course Title	Credits
ELE 2001	Advanced Academic English	3 (2-3-6)
CE 4114	Data Mining	3 (3-0-6)
CE 4304	Programming for Data Analytics	3 (3-0-6)
CSX 2009	Cloud Computing	3 (3-0-6)
ITX 3007	Software Engineering	3 (3-0-6)
ITX 4508	Quantitative Research for Digital Business	3 (3-0-6)
	Total	18 (18-0-36)

Year 3, Semester 1

Course Code	Course Title	Credits
ITX 4112	Collaborative Applications for Informatics	3 (3-0-6)
GE 2202	Ethics	3 (2-2-5)
	Major Elective 1	3 (3-0-6)
	Major Elective 2	3 (3-0-6)
	Major Elective 3	3 (3-0-6)
	Free Elective 1	3 (3-0-6)
	Total	18 (18-0-36)

Year 3, Semester 2

Course Code	Course Title	Credits
ITX 4509	Cybersecurity	3 (3-0-6)
	Major Elective 4	3 (3-0-6)
	Major Elective 5	3 (3-0-6)
	Free Elective 2	3 (3-0-6)
	Total	12 (12-0-24)

Year 4, Semester 1

Course Code	Course Title	Credits
ITX 3009	Senior Project I	3 (0-9-0)
	Major Elective 6	3 (3-0-6)
	Major Elective 7	3 (3-0-6)
	Free Elective 3	3 (3-0-6)

Total

12 (12-0-24)

Year 4, Semester 2

Course Code	Course Title	Credits
ITX 3010	Senior Project II	3 (0-9-0)
	Major Elective 8	3 (3-0-6)
	Major Elective 9	3 (3-0-6)
	Free Elective 4	3 (3-0-6)
	Total	12 (12-0-24)

Total number of credits: 126 Credits

1. General Education Courses (24 Credits)

1.1 Required Courses (15 Credits)

1.2 Elective Courses (9 Credits)

2. Specialized Courses (90 Credits)

2.1 Core Courses (21 Credits)

2.2 Major Courses (42 Credits)

2.2.1 Organization Issues and Information Systems Group (9 Credits)

2.2.2 Applications Technology Group (15 Credits)

2.2.3 Technology and Software Methods Group (12 Credits)

2.2.4 Systems Infrastructure Group (6 Credits)

2.3 Major Elective Courses (27 Credits)

3. Free Elective Courses (12 Credits)

**** At least a "C" grade is required for all English courses in General Education and the following 7 courses (21 credits):-**

ITX 3002 Introduction to Information Technology

ITX 3004 Information System Analysis and Design

ITX 3006 Database Management Systems

ITX 3007 Software Engineering

CSX 3005 Computer Networks

ITX 3009 Senior Project I

ITX 3010 Senior Project II

General Education Courses

Required Courses

ELE 1001 Communicative English I
ELE 1002 Communicative English II
ELE 2000 Academic English
ELE 2001 Advanced Academic English
GE 2202 Ethics

Elective Course

Students select 9 credits from the following courses or other general education courses offered by the University:

Specialized Courses

Core Courses

CSX 3001 Fundamentals of Computer Programming
EG 1003 Introduction to Internet of Things (IoT)
EG 1004 Artificial Intelligence for Beginners
ITX 1007 Data Analytics for Entrepreneurs
ITX 2011 Mathematical Foundations for Informatics
ITX 2009 Presentation and Data Visualization Techniques
ITX 3002 Introduction to Information Technology

Major Courses

Organization Issues and Information Systems Group
ITX 3003 Business Systems
ITX 3004 Information System Analysis and Design
ITX 4509 Cybersecurity

Applications Technology Group
ITX 3006 Database Management Systems
ITX 3009 Senior Project I
ITX 3010 Senior Project II
CE 4310 Introduction to Financial Technology
ITX 4202 Data Mining

Technology and Software Methods Group
CE4304 Programming for Data Analytics
ITX 3007 Software Engineering
ITX 4508 Quantitative Research for Digital Business
ITX 4112 Collaborative Applications for Informatics

Systems Infrastructure Group
CSX 2009 Cloud Computing
CSX 3005 Computer Networks

Major Elective Courses

- Students can take major elective courses from the following courses in 4 tracks below offered by the Faculty of Engineering, Science, and Technology. It is noted that students can choose courses across the tracks.
- Students can also select major required courses or major elective courses offered by other programs in the Faculty of Engineering, Science, and Technology as their major elective courses.
- Notes: Some courses in the Faculty of Engineering, Science, and Technology are equivalent. Taking multiple equivalent courses will be counted as one course.

Track 1: Software Engineering and Development

CSX 3002 Object-Oriented Concepts and Programming
ITX 3008 IT Project Management
ITX 4103 Requirement Engineering
ITX 4104 Software Testing
ITX 4106 Enterprise Architectures
ITX 4110 Enterprise System Integration
ITX 4111 Software Architectures
ITX 4113 Extended Reality Design and Development
ITX 4503 Information System Security
ITX 4180-4199 Selected Topic [in Software Engineering]
CE 3003 Mobile Applications Development

Track 2: Data Science and AI

ITX 2007 Data Science
ITX 4205 Big Data Analytics
ITX 4208 Decision Support and Recommender System
ITX 4211 Data Engineering
ITX 4212 Predictive Analytics
ITX 4213 Artificial Intelligence for Business
ITX 4214 Data Science Project Management
ITX 4215 Business Insights and Visualization
ITX 4216 Computer Vision
ITX 4217 Natural Language Processing and Social Interactions
ITX 4218 AI Chatbot
ITX 4219 Generative AI for Entrepreneurs
ITX 4280-4299 Selected Topic [in Data Science and AI]
ITX 4510 Data Policies and Governance

Track 3: Innovative Marketing and Management Technology

BBA 1012 Entrepreneurial Marketing
ITX 4403 Manufacturing Management System

ITX 4404 Supply Chain Management System
 ITX 4511 Internet of Behaviors
 ITX 4512 Marketing Automation Systems
 ITX 4513 Social Media Analytics
 ITX 4518 Blockchain and Digital Currencies
 ITX 4900-4909 Selected Topic [in Marketing Technology]

Track 4: Selected Topics in various Technology

ITX 4910-4919 Selected Topic [in Food and Agriculture Technology]
 ITX 4920-4929 Selected Topic [in Music Innovation]
 ITX 4930-4939 Selected Topic [in Finance and Insurance Technologies]
 ITX 4940-4949 Selected Topic [in Engineering]
 ITX 4502 Tech Startup
 ITX 4504 Digital Marketing
 ITX 4505 Digital Transformation
 ITX 4507 Information Retrieval and Search Engines
 ITX 4521 Applied Informatics Industrial Training I
 ITX 4522 Applied Informatics Industrial Training II
 ITX 4523 Applied Informatics Industrial Training III
 ITX 4524 Applied Informatics Industrial Training IV
 ITX 4531 Cybersecurity Risk Management and Compliance
 ITX 4532 Ethical Hacking and Penetration Testing
 ITX 4533 Advanced Topics in Cybersecurity
 ITX 4534 Special Problems in Cybersecurity

Free Elective Courses

Students can take free elective courses of 12 credits from any faculty in Assumption University upon completion of the prerequisite (if any).

General education courses offered by the University

AD 3280	Inspiration, Lifestyles and Popular Culture	3 (2-2-5)
ADX 1101	Art and Design Appreciation	3 (0-6-3)
ADX 1102	Design Culture Exposure	2 (0-4-4)
ADX 1140	Journey for Urban Art and Culture Exploration	3 (3-0-6)
ADX 1240	Artist Studio (Painting and Rendering)	3 (1-4-4)
ADX 1303	Design Communication	3 (2-2-5)
ADX 1304	Design Fundamental	3 (2-2-5)
BBA 1010	Design Thinking in Business	3 (3-0-6)

BBA 1012	Entrepreneurial Marketing	3 (3-0-6)
BBA 1013	Entrepreneurial Finance	3 (3-0-6)
BBA 1014	The Art of Data for Business	3 (3-0-6)
BBA 1020	Design Thinking Essentials	2 (2-0-4)
BBA 1021	Design Thinking Workshop	1 (1-0-2)
BBA 1022	Building CEO and Leadership Essentials	2 (2-0-4)
BBA 1023	Building CEO and Leadership Workshop	1 (1-0-2)
BBA 1024	Entrepreneurial Marketing Essentials	2 (2-0-4)
BBA 1025	Entrepreneurial Marketing Workshop	1 (1-0-2)
BBA 1026	Entrepreneurial Finance Essentials	2 (2-0-4)
BBA 1027	Entrepreneurial Finance Workshop	1 (1-0-2)
BBA 1028	The Art of Data Essentials	2 (2-1-4)
BBA 1029	The Art of Data Workshop	1 (0-1-1)
CA 1110	Art and Beauty of Living	3 (2-2-5)
CA 1201	Creative Photography	3 (2-2-5)
CA 1202	Computer Graphic for Presentation Design for Pitching	3 (2-2-5)
CSX 3001	Fundamentals of Computer Programming	3 (3-0-6)
EG 1001	Digital Literacy	3 (3-0-6)
EG 1002	Application Design for Everyone	3 (3-0-6)
EG 1005	3D Modelling and 3D Printing Technology	3 (3-0-6)
FT 1003	Food Factory Explore Trip (Special course)	3 (3-0-6)
FT 1004	A Food-Agri-Bio Tech Trend Update (Part A)	2 (2-0-4)
FT 1004B	Food-Agri-Bio Tech Trend Update (Part B)	1 (1-0-2)
FT 1005	Sustainability and Circular Living	3 (3-0-6)
FT 2003A	Foods Changing the World (Part A)	2 (2-0-4)
FT 2003B	Foods Changing the World (Part B)	1 (1-0-2)
FT 2004	Drinkology: The Art of drinking	3 (3-0-6)
FT 2005	Food Zodiac	3 (3-0-6)
GE 1104	Thai Historical Perspectives	3 (3-0-6)
GE 1107	Perspectives in Politics and Economy	3 (3-0-6)
GE 1204	Physical Education	1 (0-2-1)
GE 1205	ASEAN Ways	3 (3-0-6)
GE 1209	Psychology Application in Daily Life	3 (3-0-6)
GE 1302	Ecology and Sustainability	3 (3-0-6)

GE 1403	Thai Language for Professional Communication (For Thai students)	3 (3-0-6)
GE 1409	Thai Language for Intercultural Communication (For Non-Thai students)	3 (3-0-6)
GE 1413	Introduction to Korean Language and K-pop Culture	3 (3-0-6)
GE 1414	Introduction to Spanish Language and Culture	3 (3-0-6)
GE 1415	Storytelling and Presentation Skills in English	3 (3-0-6)
GE 2102	Human Heritage and Globalization	3 (3-0-6)
GE 2103	Art of Reasoning	3 (3-0-6)
GE 2207	Sport, Health and Wellness Development	3 (3-0-6)
GE 2209	The Power of Personality in Leadership	3 (3-0-6)
GE 2210	Love and Art of Living	3 (3-0-6)
GE 2212	Exotic Thai Food and Crafts	3 (3-0-6)
GE 2213	Thai Market Vendor Exposure	3 (3-0-6)
GE 2304	Lifestyles and Sustainability in Dynamic World	3 (3-0-6)
GE 3401	Public Speaking in Thai	3 (3-0-6)
ITX 2004	UI/UX Design and Prototyping	3 (3-0-6)
ITX 2005	Design Thinking	3 (3-0-6)
ITX 3002	Introduction to Information Technology	3 (3-0-6)
ITX 4502	Tech Startup	3 (3-0-6)
LLB 1501	Business Law	3 (3-0-6)
LLB 1502	Fundamentals of Tax Law	3 (3-0-6)
LLB 4540	International Business Law and Start-Up Business	3 (3-0-6)
LLB 4806	Business and Human Rights	3 (3-0-6)
MB 2531	Music Business	3 (3-0-6)
MU 1002	Pop Music Appreciation	3 (3-0-6)
MU 1231	History and Literature of Music	3 (3-0-6)
MU 3602	Music Therapy	3 (3-0-6)
MU 4223	Music in Human Life	3 (3-0-6)
NGE 0110	First Aid and Basic Life Support	3 (3-0-6)
NGE 0111	Innovative Media and Project Influencing Health Risk Behavior	3 (3-0-6)

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