

2022 BSCS Study Plan for 653

Year 1, Semester 1

Course Code	Course Title	Credits
ELE 1001	Communicative English I	3 (2-3-6)
CSX 2003	Principles of Statistics	3 (3-0-6)
ITX 3002	Introduction to Information Technology	3 (3-0-6)
CSX 3001	Fundamentals of Computer Programming	3 (3-0-6)
BBA 1006	Essential Economics for Entrepreneurs	2 (2-0-4)
GE 1303	Science for Sustainable Future	2 (2-0-4)
	Total	16 (15-3-32)

Year 1, Semester 2

Course Code	Course Title	Credits
ELE 1002	Communicative English II	3 (2-3-6)
CSX 2008	Mathematics Foundation for Computer Science	3 (3-0-6)
ITX 2005	Design Thinking	3 (3-0-6)
CSX 3002	Object-Oriented Concepts and Programming	3 (3-0-6)
BBA1004	Essential Marketing for Entrepreneurs	2 (2-0-4)
GE 1410	Thai for Professional Communication	2 (2-0-4)
or GE 1411	Thai Language for multicultural	
or GE 1412	Introductory Thai Usage	
	Total	16 (15-3-32)

Year 2, Semester 1

Course Code	Course Title	Credits
ELE 2000	Academic English	3 (2-3-6)
CSX 2006	Mathematics and Statistics for Data Science	3 (3-0-6)
CSX 3003	Data Structures and Algorithms	3 (3-0-6)
ITX 3007	Software Engineering	3 (3-0-6)
BBA 1005	Essential Finance for Entrepreneurs	2 (2-0-4)
	One Major Elective Course	3 (3-0-6)
	Total	17 (16-3-34)

Year 2, Semester 2

Course Code	Course Title	Credits
ELE 2001	Advanced Academic English	3 (2-3-6)
ITX 2007	Data Science	3 (3-0-6)
CSX 2009	Cloud Computing	3 (3-0-6)
CSX 3006	Database Systems	3 (3-0-6)
BBA 1007	Data Analytics for Entrepreneurs	3 (2-2-5)
	One Major Elective Course	3 (3-0-6)
	Total	18 (16-5-35)

Year 3, Semester 1

Course Code	Course Title	Credits
GE 2110	Human Civilizations and Global Citizens	2 (2-0-4)
CSX 3004	Programming Languages	3 (3-0-6)
CSX 3005	Computer Networks	3 (3-0-6)
CSX 3009	Algorithm Design	3 (3-0-6)
	One Major Elective Course	3 (3-0-6)
	One Free Elective Course	3 (3-0-6)
	Total	17 (17-0-34)

Year 3, Semester 2

Course Code	Course Title	Credits
CSX 3007	Computer Architecture	3 (3-0-6)
CSX 3008	Operating Systems	3 (3-0-6)
CSX 3010	Senior Project I	3 (0-9-0)
	Two Major Elective Courses	6 (6-0-12)
	Total	15 (12-9-24)

Year 4, Semester 1

Course Code	Course Title	Credits
GE 2202	Ethics	3 (3-0-6)
	Four Major Elective Courses	12 (12-0-24)
	One Free Elective Course	3 (3-0-6)
	Total	18 (18-0-36)

Year 4, Semester 2

Course Code	Course Title	Credits
CSX 3011	Senior Project II	3 (0-9-0)
	Two Major Elective Courses	6 (6-0-12)
	Two Free Elective Courses	6 (6-0-12)
	Total	15 (12-9-24)

Year 2, Semester 1

Course Code	Course Title	Credits
ELE 2000	Academic English	3 (3-2-6)
CSX 2006	Mathematics and Statistics for Data Science	3 (3-0-6)
CSX 2008	Mathematics Foundation for Computer Science	3 (3-0-6)
CSX 3003	Data Structures and Algorithms	3 (3-0-6)
CSX 3005	Computer Networks	3 (3-0-6)
ITX 2007	Data Science	3 (3-0-6)
	Total	18 (18-2-36)

Year 2, Semester 2

Course Code	Course Title	Credits
ELE 2001	Advanced Academic English	3 (3-2-6)
GE 1302	Ecology and Sustainability	3 (3-0-6)
CSX 2009	Cloud Computing	3 (3-0-6)
CSX 3004	Programming Languages	3 (3-0-6)
CSX 3006	Database Systems	3 (3-0-6)
	One Major Elective Course	3 (3-0-6)
	Total	18 (18-2-36)

Year 3, Semester 1

Course Code	Course Title	Credits
GE 1403	Communication in Thai	3 (3-0-6)
or GE 1408	Thai Usage	3 (3-0-6)
or GE 1409	Thai Language for intercultural communication	3 (3-0-6)
CSX 3007	Computer Architecture	3 (3-0-6)
CSX 3008	Operating Systems	3 (3-0-6)
	Two Major Elective Courses	6 (6-0-12)
	One Free Elective Course	3 (3-0-6)
	Total	18 (18-0-36)

Year 3, Semester 2

Course Code	Course Title	Credits
GE 2102	Human Heritage and Globalization	3 (3-0-6)
CSX 3009	Algorithm Design	3 (3-0-6)
CSX 3010	Senior Project I	3 (0-9-0)
	Two Major Elective Courses	6 (6-0-12)
	One Free Elective Course	3 (3-0-6)
	Total	18 (15-9-30)

Year 4, Semester 1

Course Code	Course Title	Credits
GE 2202	Ethics	3 (3-0-6)
	Four Major Elective Courses	12 (12-0-24)
	One Free Elective Course	3 (3-0-6)
	Total	18 (18-0-36)

Year 4, Semester 2

Course Code	Course Title	Credits
CSX 3011	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 (12-9-18)