DONG NAI TECHNOLOGY UNIVERSITY
DNTU

CURRICULUM

Major: **Software Engineering**

Educational Level: **Undergraduate**

Mode of Study: **Full-time**

Duration of Study: **4 years**

Degree Awarded: **Bachelor's Degree**

Cohort: **Cohort 20 (2024 - 2028)**

Total cumulative credits for the whole program: **126**

Courses marked with (*) are not calculated into the cumulative GPA.

SEMESTER 1: 4 cumulative credits (Compulsory: 4, Elective: 0)					
Course Code	**Course Name**	**Credits**	**Total Hours**	**Theory Hours**	**Practice Hours**
Compulsory Courses		**4**			
CB70301	Key English 1 (**)	3	45	45	0
CB70302	Key English 2 (**)	3	45	45	0
CB70303	Key English 3 (**)	3	45	45	0
CB70304	English Speaking Community (**)	2	30	30	0
CB70303	Public Speaking Skills	1	15	15	0
PM70201	Introduction to Software Engineering	1	15	15	0
TH70103	General Informatics	2	60	0	60
SEMESTER 2: 18 cumulative credits (Compulsory: 16, Elective: 2)					
Course Code	**Course Name**	**Credits**	**Total Hours**	**Theory Hours**	**Practice Hours**
Compulsory Courses		**16**			
TA70305	Intensive English 1	4	60	60	0
CB70304	Emotional Management Skills	1	15	15	0
CB70101	Marxist-Leninist Philosophy	3	45	45	0
CB70202	Higher Mathematics	3	45	45	0

TH70104	Computer Architecture	2	45	15	30
TH70105	Fundamentals of Programming	3	60	30	30
Elective Courses (Choose 1 out of 2 courses)		**2**			
PM71201	Applied Computer Graphics	2	60	0	60
PM71202	Computer Networks and Network Services	2	45	15	30
SEMESTER 3: 21 cumulative credits (Compulsory: 16, Elective: 5)					
Course Code	**Course Name**	**Credits**	**Total Hours**	**Theory Hours**	**Practice Hours**
Compulsory Courses		**16**			
CB71401	Physical Education 1 - Swimming (*)	1	30	0	30
TA70306	Intensive English 2	4	60	60	0
CB70305	Communication and Relationship Building Skills	2	30	30	0
CB70106	Introduction to Law	2	30	30	0
CB70102	Marxist-Leninist Political Economy	2	30	30	0
PM70202	Programming Techniques	3	60	30	30
PM70203	Databases	3	60	30	30
Elective Courses (Choose 2 out of 5 courses)		**5**			
CB71101	Environment and Sustainable Development	2	30	30	0
CB71102	Behavioral Psychology	2	30	30	0
CB71103	Medical Ethics and Psychology	2	30	30	0
TH70101	Applied Discrete Mathematics in IT	3	45	45	0
CB70206	Scientific Research Methodology	3	45	45	0
SEMESTER 4: 19 cumulative credits (Compulsory: 14, Elective: 5)					
Course Code	**Course Name**	**Credits**	**Total Hours**	**Theory Hours**	**Practice Hours**
Compulsory Courses		**14**			
CB70401	National Defense and Security Education (Course 1) (*)	2	30	30	0
CB70402	National Defense and Security Education (Course 2) (*)	2	30	30	0
CB70403	National Defense and Security Education (Course 3) (*)	2	30	30	0

CB70404	National Defense and Security Education (Course 4) (*)	2	30	30	0
TA70307	Intensive English 3	4	60	60	0
CB70307	Industrial Accident Prevention Skills	2	30	30	0
CB70103	Scientific Socialism	2	30	30	0
PM70204	Web Design	3	60	30	30
TH70107	Data Structures and Algorithms	3	60	30	30
Elective Courses (Choose 2 out of 5 courses)		**5**			
PM71203	Basic Python Programming	3	60	30	30
PM71204	Windows Programming	3	60	30	30
CB71402	Physical Education 2 (Football) (*)	1	30	0	30
CB71403	Physical Education 2 (Volleyball) (*)	1	30	0	30
CB71404	Physical Education 2 (Badminton) (*)	1	30	0	30
CB71104	Green Economy and Sustainable Development	2	30	30	0
CB71105	Vietnamese Traditional Culture and Music	2	30	30	0
CB71106	History of World Civilizations	2	30	30	0
SEMESTER 5: 17 cumulative credits (Compulsory: 14, Elective: 3)					
Course Code	**Course Name**	**Credits**	**Total Hours**	**Theory Hours**	**Practice Hours**
Compulsory Courses		**14**			
TA70308	Intensive English 4	4	60	60	0
CB70104	Ho Chi Minh Ideology	2	30	30	0
CB70105	History of the Communist Party of Vietnam	2	30	30	0
PM70205	Object-Oriented Programming	3	60	30	30
TH70108	Database Management Systems	3	60	30	30
Elective Courses (Choose 1 out of 2 courses)		**3**			
PM71205	Advanced Python Programming	3	60	30	30
PM71206	.NET Technology	3	60	30	30
CB71408	Physical Education 3 (Martial Arts) (*)	1	30	0	30
CB71405	Physical Education 3 (Fitness) (*)	1	30	0	30

CB71406	Physical Education 3 (Dancesport) (*)	1	30	0	30
CB71407	Physical Education 3 (Basketball) (*)	1	30	0	30
SEMESTER 6: 16 cumulative credits (Compulsory: 13, Elective: 3)					
Course Code	**Course Name**	**Credits**	**Total Hours**	**Theory Hours**	**Practice Hours**
Compulsory Courses		**13**			
PM70206	Mobile Application Development	3	60	30	30
PM70207	Web Application Development	3	60	30	30
TH70109	Systems Analysis and Design	3	60	30	30
PM70208	Introduction to Artificial Intelligence	2	45	15	30
PM70209	Introduction to Software Engineering	2	30	30	0
Elective Courses (Choose 1 out of 3 courses)		**3**			
TH71114	E-Commerce	3	60	30	30
PM71207	Open Source Software Development	3	60	30	30
PM71208	Machine Learning and Data Mining	3	60	30	30
SEMESTER 7: 15 cumulative credits (Compulsory: 12, Elective: 3)					
Course Code	**Course Name**	**Credits**	**Total Hours**	**Theory Hours**	**Practice Hours**
Compulsory Courses		**12**			
PM70210	Information Security and Privacy	3	60	30	30
PM70211	Software Architecture and Design	3	60	30	30
PM70212	Software Testing and Quality Assurance	2	45	15	30
PM70213	Software Project Management	2	30	30	0
PM70214	English for Specific Purposes (IT)	2	30	30	0
Elective Courses (Choose 1 out of 4 courses)		**3**			
TH71123	IoT Technology and Applications	3	60	30	30
TH71118	Blockchain Technology	3	60	30	30
TH71111	Computer Vision	3	60	30	30
TH71108	Web API	3	60	30	30
SEMESTER 8: 16 cumulative credits (Compulsory: 16, Elective: 0)					

Course Code	Course Name	Credits	Total Hours	Theory Hours	Practice Hours
Professional Internship, Graduation Internship		***8***			
PM70215	Graduation Internship	8	360	360	0
Graduation Thesis		***8***			
PM71209	Graduation Thesis	8	120	120	0
Alternative Courses for Graduation Thesis		***8***			
PM71210	Artificial Intelligence with Python	4	75	45	30
PM71211	Software Development	4	75	45	30