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 22 (2026-2030)**
Total cumulative credits for the whole program:	**122**

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

SEMESTER 1: 6 cumulative credits (Compulsory: 3, Elective: 3)					
Course Code	**Course Name**	**Credits**	**Total Hours**	**Theory Hours**	**Practice Hours**
Compulsory Courses		**3**			
PM70201	Introduction to Software Engineering	1	15	15	0
TH70104	Computer Architecture	2	45	15	30
TH70001	Informatics 1 (*)	2	45	15	30
CB70411	Swimming*	1	30	0	30
Elective Courses (Choose 1 out of 2 courses)		**3**			
TA71331	English 1	3	45	45	0
TQ71321	Chinese 1	3	45	45	0
SEMESTER 2: 20 cumulative credits (Compulsory: 12, Elective: 8)					
Course Code	**Course Name**	**Credits**	**Total Hours**	**Theory Hours**	**Practice Hours**
Compulsory Courses		**12**			
CB70101	Marxist-Leninist Philosophy	3	45	45	0
CB70202	Higher Mathematics	3	45	45	0
TH70105	Fundamentals of Programming	3	60	30	30
TN70023	Discrete Structures	3	45	45	0
TH70002	Informatics 2 (*)	2	60	0	60
CB70401	National Defense and Security Education (Course 1) (*)	3	45	45	0
CB70402	National Defense and Security Education (Course 2) (*)	2	30	30	0
CB70403	National Defense and Security Education (Course 3) (*)	1	30	0	30

CB70404	National Defense and Security Education (Course 4) (*)	2	60	0	60
Elective Courses (Choose 3 out of 6 courses)		**8**			
PM71212	Applied Computer Graphics	3	60	30	30
TH70106	Computer Networks	3	60	30	30
TA71332	English 2	3	45	45	0
TQ71322	Chinese 2	3	45	45	0
CB70311	Occupational Safety and Technical Environment	2	30	30	0
CB70305	Communication and Relationship Building Skills	2	30	30	0
CB71412	Football*	1	30	0	30
CB71403	Volleyball*	1	30	0	30
CB71404	Badminton*	1	30	0	30
CB71410	Pickleball*	1	30	0	30
SEMESTER 3: 21 cumulative credits (Compulsory: 13, Elective: 8)					
Course Code	**Course Name**	**Credits**	**Total Hours**	**Theory Hours**	**Practice Hours**
Compulsory Courses		**13**			
CB70102	Marxist-Leninist Political Economy	2	30	30	0
CB70106	Introduction to Law	2	30	30	0
PM70203	Databases	3	60	30	30
PM70202	Programming Techniques	3	60	30	30
PM70204	Web Design	3	60	30	30
Elective Courses (Choose 3 out of 6 courses)		**8**			
TH71127	Introduction to Data Science	3	60	30	30
TN70003	Python Programming	3	60	30	30
TA71333	English 3	3	45	45	0
TQ71323	Chinese 3	3	45	45	0
CB71101	Environment and Sustainable Development	2	30	30	0
CB71102	Behavioral Psychology	2	30	30	0
CB71413	Fitness*	1	30	0	30
CB71407	Basketball*	1	30	0	30
CB71414	Martial Arts*	1	30	0	30
SEMESTER 4: 20 cumulative credits (Compulsory: 17, Elective: 3)					
Course Code	**Course Name**	**Credits**	**Total Hours**	**Theory Hours**	**Practice Hours**
Compulsory Courses		**17**			

CB70103	Scientific Socialism	2	30	30	0
TH70108	Database Management Systems	3	60	30	30
PM70205	Object-Oriented Programming	3	60	30	30
TH70107	Data Structures and Algorithms	3	60	30	30
PM71204	Windows Programming	3	60	30	30
TH71117	Software Engineering	3	60	30	30
Elective Courses (Choose 1 out of 2 courses)		**3**			
PM71213	Cloud Computing	3	60	30	30
TH71128	Operating Systems	3	60	30	30
TA71334	English for International Certification (*)	9	135	135	0
TQ71324	Chinese for International Certification (*)	9	135	135	0
SEMESTER 5: 20 cumulative credits (Compulsory: 11, Elective: 9)					
Course Code	**Course Name**	**Credits**	**Total Hours**	**Theory Hours**	**Practice Hours**
Compulsory Courses		**11**			
CB70104	Ho Chi Minh Ideology	2	30	30	0
TH70110	Artificial Intelligence	3	60	30	30
PM70207	Web Application Development	3	60	30	30
TH70120	IT Project Management	3	60	30	30
Elective Courses (Choose 3 out of 6 courses)		**9**			
PM71214	Software Architecture	3	60	30	30
PM71206	.NET Technology	3	60	30	30
PM71208	Machine Learning and Data Mining	3	60	30	30
TN70010	Big Data	3	60	30	30
TH70119	IoT Technology and Applications	3	60	30	30
TH71118	Blockchain Technology	3	60	30	30
SEMESTER 6: 23 cumulative credits (Compulsory: 14, Elective: 9)					
Course Code	**Course Name**	**Credits**	**Total Hours**	**Theory Hours**	**Practice Hours**
Compulsory Courses		**14**			
CB70105	History of the Communist Party of Vietnam	2	30	30	0
PM70206	Mobile Application Development	3	60	30	30
TH70109	Systems Analysis and Design	3	60	30	30
PM70210	Information Security and Privacy	3	60	30	30
PM70220	Software Testing and Quality Assurance	3	60	30	30

Elective Courses (Choose 3 out of 6 courses)		**9**			
TH71114	E-Commerce	3	60	30	30
PM71207	Open Source Software Development	3	60	30	30
TH71111	Computer Vision	3	60	30	30
TH71108	Web API	3	60	30	30
TN70012	Special Topics in Applied Artificial Intelligence	3	60	30	30
PM71215	Special Topics in Emerging Technologies	3	60	30	30
SEMESTER 7: 6 cumulative credits (Compulsory: 6, Elective: 0)					
Course Code	**Course Name**	**Credits**	**Total Hours**	**Theory Hours**	**Practice Hours**
Professional Internship, Graduation Internship		***6***			
PM70221	Graduation Internship	6	90	90	0
SEMESTER 8: 6 cumulative credits (Compulsory: 6, Elective: 0)					
Course Code	**Course Name**	**Credits**	**Total Hours**	**Theory Hours**	**Practice Hours**
Graduation Thesis		***6***			
PM70222	Graduation Thesis	6	90	90	0
Alternative Courses for Graduation Thesis		***6***			
PM70218	Artificial Intelligence with Python	3	60	30	30
PM70219	Graduation Project / Graduation Capstone	3	60	30	30