DONG NAI TECHNOLOGY UNIVERSITY

DNTU

CURRICULUM

Major: **Artificial Intelligence**

Education level: **Undergraduate**

Mode of study: **Full-time**

Program duration: **4 years**

Degree awarded: **Bachelor's degree**

Cohort: **Cohort 22 (2026–2030)**

Total program credits: **122**

Courses marked (*) are excluded from the cumulative GPA.

SEMESTER 1: 6 credits (required: 3, elective: 3)					
Course code	**Course title**	**Credits**	**Total hours**	**Lecture hours**	**Practical hours**
Required courses		**3**			
TN70001	Introduction to the Artificial Intelligence Major	1	15	15	0
TH70104	Computer Architecture	2	45	15	30
CB70411	Swimming (*)	1	30	0	30
TH70001	Computing 1 (*)	2	45	15	30
Elective courses (Choose 1 of 2 courses)		**3**			
TA71331	English 1	3	45	45	0
TQ71321	Chinese 1	3	45	45	0
SEMESTER 2: 20 credits (required: 12, elective: 8)					
Course code	**Course title**	**Credits**	**Total hours**	**Lecture hours**	**Practical hours**
Required courses		**12**			
CB70101	Marxist–Leninist Philosophy	3	45	45	0

CB70202	Advanced Mathematics	3	45	45	0
TN70023	Discrete Structures	3	45	45	0
TH70105	Programming Fundamentals	3	60	30	30
TH70002	Computing 2 (*)	2	60	0	60
CB70401	National Defense and Security Education 1 (*)	3	45	45	0
CB70402	National Defense and Security Education 2 (*)	2	30	30	0
CB70403	National Defense and Security Education 3 (*)	1	30	0	30
CB70404	National Defense and Security Education 4 (*)	2	60	0	60
Elective courses (Choose 1 of 2 courses)		**2**			
CB70311	Occupational Safety and the Technical Work Environment	2	30	30	0
CB70305	Communication and Relationship-Building Skills	2	30	30	0
Elective courses (Choose 1 of 2 courses)		**3**			
TA71332	English 2	3	45	45	0
TQ71322	Chinese 2	3	45	45	0
Elective courses (Choose 1 of 2 courses)		**3**			
PM71212	Applied Computer Graphics	3	60	30	30
TH70106	Computer Networks	3	60	30	30
Elective courses (Choose 1 of 4 courses)		**1**			
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: 18 credits (required: 10, elective: 8)					
Course code	**Course title**	**Credits**	**Total hours**	**Lecture hours**	**Practical hours**
Required courses		**10**			
CB70102	Marxist–Leninist Political Economy	2	30	30	0
CB70106	Introduction to Law	2	30	30	0
PM70203	Databases	3	60	30	30
TN70003	Python Programming	3	60	30	30
Elective courses (Choose 1 of 2 courses)		**2**			
CB71101	Environment and Sustainable Development	2	30	30	0
CB71102	Behavioral Psychology	2	30	30	0
Elective courses (Choose 1 of 2 courses)		**3**			
TA71333	English 3	3	45	45	0
TQ71323	Chinese 3	3	45	45	0
Elective courses (Choose 1 of 2 courses)		**3**			
TN71301	Ethics in AI	3	60	30	30
PM70204	Web Design	3	60	30	30
Elective courses (Choose 1 of 3 courses)		**1**			
CB71413	Fitness (*)	1	30	0	30
CB71407	Basketball (*)	1	30	0	30
CB71414	Martial Arts (*)	1	30	0	30
SEMESTER 4: 17 credits (required: 14, elective:3)					
Course code	**Course title**	**Credits**	**Total hours**	**Lecture hours**	**Practical hours**
Required courses		**14**			

CB70103	Scientific Socialism	2	30	30	0
PM70205	Object-Oriented Programming	3	60	30	30
TH70107	Data Structures and Algorithms	3	60	30	30
TH71109	Machine Learning	3	60	30	30
TN70005	Fundamental Data Analysis Methods	3	60	30	30
Elective courses (Choose 1 of 2 courses)		**3**			
TH70108	Database Management Systems	3	60	30	30
TN71004	Knowledge Representation and Reasoning	3	45	45	0
Elective courses (Choose 1 of 2 courses)		9			
TA71334	English for International Certification (*)	9	135	135	0
TQ71324	Chinese for International Certification (*)	9	135	135	0
SEMESTER 5: 23 credits (required: 11, elective: 12)					
Course code	**Course title**	**Credits**	**Total hours**	**Lecture hours**	**Practical hours**
Required courses		**11**			
CB70104	Ho Chi Minh Thought	2	30	30	0
TH70120	IT Project Management	3	60	30	30
TH70110	Artificial Intelligence	3	60	30	30
TN70010	Big Data	3	60	30	30
Elective courses (Choose 4 of 8 courses)		**12**			
TN70009	Visual Analytics	3	60	30	30
TH71117	Software Engineering	3	60	30	30
TH70119	IoT Technology and Applications	3	60	30	30
TH71118	Blockchain Technology	3	60	30	30
PM71207	Open-Source Software Development	3	60	30	30

PM71208	Machine Learning and Data Mining	3	60	30	30
PM70206	Mobile Application Development	3	60	30	30
TN71010	Machine Learning and Pattern Recognition	3	60	30	30
SEMESTER 6: 26 credits (required: 17, elective: 9)					
Course code	**Course title**	**Credits**	**Total hours**	**Lecture hours**	**Practical hours**
Required courses		**17**			
CB70105	History of the Communist Party of Vietnam	2	30	30	0
PM70220	Software Testing and Quality Assurance	3	60	30	30
TH70109	Information Systems Analysis and Design	3	60	30	30
TH71110	Deep Learning	3	60	30	30
TN70012	Selected Topics in AI Applications	3	60	30	30
TH71111	Computer Vision	3	60	30	30
Elective courses (Choose 3 of 6 courses)		**9**			
PM70210	Information Security	3	60	30	30
TN71012	Natural Language Processing	3	60	30	30
TN71013	Reinforcement Learning	3	60	30	30
TN71014	Digital Signal Processing	3	60	30	30
TN71016	Symbolic Programming for AI	3	60	30	30
TN71009	Robotics	3	60	30	30
SEMESTER 7: 6 credits (required: 6, elective: 0)					
Course code	**Course title**	**Credits**	**Total hours**	**Lecture hours**	**Practical hours**
Professional and Graduation Internships		***6***			
TN70301	Graduation Internship	6	90	90	0

SEMESTER 8: 6 credits (required: 6, alternative: 6)					
Course code	**Course title**	**Credits**	**Total hours**	**Lecture hours**	**Practical hours**
Graduation Thesis		***6***			
TN71302	Graduation Thesis	6	90	90	0
Courses in Lieu of the Graduation Thesis		***6***			
TN71011	Deep Neural Networks	3	60	30	30
TN71018	Generative AI	3	60	30	30