DONG NAI TECHNOLOGY UNIVERSITY

DNTU

CURRICULUM

Major:	**Machine building technology**
Educational Level:	**Undergraduate**
Mode of Study:	**Full-time**
Duration of Study:	**4 years**
Degree Awarded:	**Engineer degree**
Cohort:	**Cohort 21 (2025 - 2029)**
Total cumulative credits for the whole program:	**152**

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		**15**			
CB70107	Understanding of DNTU	1	15	15	0
CB70303	Public Speaking Skills	1	15	15	0
CT70101	Introduction to machine manufacturing technology	1	15	15	0
CT70102	Technical drawing	2	30	30	0
TA70301	Key English 1	3	45	45	0
TA70302	Key English 2	3	45	45	0
TA70303	Key English 3	3	45	45	0
TA70304	English Speaking Community	2	30	30	0
TN70020	Introduction to Artificial Intelligence (AI)	1	15	15	0
Elective Courses (Choose 1 out of 3 courses)		**1**			
SEMESTER 2: 23 cumulative credits (Compulsory: 21, Elective: 2)					
Course Code	**Course Name**	**Credits**	**Total Hours**	**Theory Hours**	**Practice Hours**

Compulsory Courses		**21**			
CB70101	Philosophy of Marxism and Leninism	3	45	45	0
CB70202	Advanced Mathematics	3	45	45	0
CB70304	Emotional Regulation Skills	1	15	15	0
CB70401	National Defense Education - 1st Course	3	45	45	0
CB70402	National Defense Education - 2nd Course	2	30	30	0
CB70403	National Defense Education - 3rd Course	1	30	0	30
CB70404	National Defense Education - 4th Course	2	60	0	60
CB70411	Swimming	1	30	0	30
CT70103	Mechanical engineering drawing	2	30	30	0
CT70104	Autocad	2	60	0	60
CT70109	Measurement technical tolerances	2	30	30	0
CT70111	Basic electronics	2	30	30	0
TA70305	Intensive English 1	4	60	60	0
TH70001	Informatics 1	2	45	15	30
Elective Courses (Choose 1 out of 3 courses)		**2**			
CB71201	Computational mathematics	2	30	30	0
CB71202	Computational mathematics	2	30	30	0

SEMESTER 3: 15 cumulative credits (Compulsory: 18, Elective: 4)

Course Code	Course Name	Credits	Total Hours	Theory Hours	Practice Hours
Compulsory Courses		**18**			
CB70102	Political Economics of Marxism and Leninism	2	30	30	0
CB70203	Physics	3	45	45	0
CB70305	Communication and Relationship Building Skills	2	30	30	0

CT70105	Theoretical mechanics	3	45	45	0
CT70157	Electrical engineering	2	60	0	60
TA70306	Intensive English 2	4	60	60	0
TH70002	Informatics 2	2	60	0	60
Elective Courses (Choose 1 out of 3 courses)		**4**			
CB71101	Environment and Sustainable Development	2	30	30	0
CB71102	Behavioral Psychology	2	30	30	0
CT71253	Mechanical measurement experiment	2	60	0	60
CT71254	Materials science experiment	2	60	0	60
SEMESTER 4: 22 cumulative credits (Compulsory: 18, Elective: 4)					
Course Code	**Course Name**	**Credits**	**Total Hours**	**Theory Hours**	**Practice Hours**
Compulsory Courses		**18**			
CB70103	Scientific Socialism	2	30	30	0
CB70307	Industrial Accident Prevention Skills	2	30	30	0
CT70110	Principle, machine details	3	45	45	0
CT70112	Material strength	2	30	30	0
CT70122	Machine Building Technology 1	3	45	45	0
CT70167	Basic Mechanical Practice 1	2	60	0	60
TA70307	Intensive English 3	4	60	60	0
Elective Courses (Choose 1 out of 3 courses)		**4**			
CB71104	Green Economy and Sustainable Development	2	30	30	0
CB71105	Vietnamese traditional music and culture	2	30	30	0
CB71106	History of World Civilization	2	30	30	0
DP70002	Introduction to Vietnamese culture	2	30	30	0
SEMESTER 5: 22 cumulative credits (Compulsory: 22, Elective: 2)					

Course Code	Course Name	Credits	Total Hours	Theory Hours	Practice Hours
Compulsory Courses		**20**			
CB70104	Ho Chi Minh Ideology	2	30	30	0
CB70105	History of Vietnamese Communist Party	2	30	30	0
CB70206	Scientific research method	2	30	30	0
CT70113	Mechanical materials	2	30	30	0
CT70123	Mechanical design on computers	2	60	0	60
CT70124	Machine Building Technology 2	2	30	30	0
CT70125	Machine Detail Project	1	30	0	30
CT70126	Practice in electronic circuit design	1	30	0	30
CT70168	Basic Mechanical Practice 2	2	60	0	60
TA70308	Intensive English 4	4	60	60	0
Elective Courses (Choose 1 out of 3 courses)		**1**			
CT71117	Thermal Engineering	2	30	30	0
CT71118	Metal Technology	2	30	30	0
SEMESTER 6: 21 cumulative credits (Compulsory: 17, Elective: 4)					
Course Code	**Course Name**	**Credits**	**Total Hours**	**Theory Hours**	**Practice Hours**
Compulsory Courses		**17**			
CB70106	Introduction of Laws	2	30	30	0
CB70309	Effective and Creative Thinking Skills	2	30	30	0
CT70134	Machine building technology project	1	30	0	30
CT70158	Electrical and electronic equipment in industrial machines	2	30	30	0
CT70159	Practice electrical and electronic equipment in industrial machines	1	30	0	30

CT70160	CAD/CAM-CNC Technology	2	30	0	30
CT70161	CAD/CAM-CNC Technology Practice	2	60	0	60
CT70162	Automatic control engineering	2	30	30	0
CT70163	Practice of automatic control engineering	1	30	0	30
CT70169	Special machining methods	2	30	30	0
Elective Courses (Choose 1 out of 3 courses)		**4**			
CT71137	Mechanical mold design	2	30	30	0
CT71138	Application of CAE to mechanical design	2	60	0	60
CT71247	Industrial Networks and SCADA Systems	2	45	15	30
CT71256	Industrial Electronics	2	30	30	0
SEMESTER 7: 22 cumulative credits (Compulsory: 11, Elective: 11)					
Course Code	**Course Name**	**Credits**	**Total Hours**	**Theory Hours**	**Practice Hours**
Compulsory Courses		**11**			
CT70132	Hydraulic Pneumatic System	3	75	15	60
CT70136	CNC machining technology	3	75	15	60
CT70155	Advanced Mechanical Practice	2	60	0	60
CT70164	PLC programming techniques	3	75	15	60
Elective Courses (Choose 1 out of 3 courses)		**11**			
CT71120	Fluid Muscle	3	45	45	0
CT71127	Measurement Sensor Engineering	2	45	15	30
CT71139	Welding Technology and Welding Equipment	3	75	15	60
CT71140	Mold design technical project	1	30	0	30
CT71142	Reverse engineering technology and 3D printing	2	45	15	30

CT71248	Design project of automatic control system	1	30	0	30
CT71250	Automatic Control Equipment and Systems	2	45	15	30
CT71251	Autmate the production process	2	30	30	0
CT71255	System Control Programming Techniques	2	30	30	0
CT71257	Industrial Robots	3	75	15	60
SEMESTER 8: 15 cumulative credits (Compulsory: 14, Elective: 1)					
Course Code	**Course Name**	**Credits**	**Total Hours**	**Theory Hours**	**Practice Hours**
Professional and Graduation Internships		***8***			
CT70170	Engineering internship	8	135	0	135
Graduation Thesis		***10***			
CT71259	Graduation thesis	10	150	0	150
Graduation Thesis Alternative Courses		***10***			
CT71260	Graduation Project	4	60	60	0
CT71261	Finite Element in Mechanics	3	75	15	60
CT71262	Optimization the cutting processes	3	45	45	0