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 20 (2024 - 2028)**

Total cumulative credits for the whole program: **152**

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

SEMESTER 1: 5 cumulative credits (Compulsory: 5, Elective: 0)					
Course Code	**Course Name**	**Credits**	**Total Hours**	**Theory Hours**	**Practice Hours**
Compulsory Courses		**5**			
CB70303	Public Speaking Skills	1	15	15	0
CT70100	Occupational Safety in Mechanical Engineering	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
Elective Courses (Choose 1 out of 3 courses)		**0**			
SEMESTER 2: 21 cumulative credits (Compulsory: 19, Elective: 2)					
Course Code	**Course Name**	**Credits**	**Total Hours**	**Theory Hours**	**Practice Hours**

Compulsory Courses		**19**			
CB70101	Philosophy of Marxism and Leninism	2	60	0	60
CB70202	Advanced Mathematics	2	60	0	60
CB70301	Informatics 1(*)	2	45	15	30
CB70304	Emotional Regulation Skills	1	15	15	0
CT70103	Mechanical engineering drawing	2	30	30	0
CT70104	Autocad	3	45	45	0
CT70121	Advanced mechanical practice 1	3	45	45	0
TA70305	Intensive English 1	4	60	60	0
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: 21 cumulative credits (Compulsory: 18, Elective: 3)					
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
CB70302	Informatics 2(*)	2	60	0	60
CB70305	Communication and Relationship Building Skills	2	30	30	0
CB71401	Physical Education 1 – Swimming	1	30	0	30
CT70105	Theoretical mechanics	3	45	45	0
CT70106	Electrical engineering	2	45	15	30
TA70306	Intensive English 2	4	60	60	0
Elective Courses (Choose 1 out of 3 courses)		**3**			

CB71101	Environment and Sustainable Development	2	30	30	0
CB71102	Behavioral Psychology	2	30	30	0
CB71103	Psychology and Medical Ethics	2	30	30	0
CT70107	Mechanical measurement experiment	1	30	0	30
CT70108	Basic cold practice	1	30	0	30
SEMESTER 4: 22 cumulative credits (Compulsory: 20, Elective: 2)					
Course Code	**Course Name**	**Credits**	**Total Hours**	**Theory Hours**	**Practice Hours**
Compulsory Courses		**20**			
CB70103	Scientific Socialism	2	30	30	0
CB70307	Industrial Accident Prevention Skills	2	30	30	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
CB71402	Physical Education 2	1	30	0	30
CT70109	Measurement technical tolerances	2	30	30	0
CT70110	Principle, machine details	3	45	45	0
CT70111	Basic electronics	2	30	30	0
CT70112	Material strength	2	30	30	0
CT70122	Machine Building Technology 1	3	30	45	0
TA70307	Intensive English 3	4	45	60	0
Elective Courses (Choose 2 courses)		**2**			
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
SEMESTER 5: 22 cumulative credits (Compulsory: 16, Elective: 6)					
Course Code	**Course Name**	**Credits**	**Total Hours**	**Theory Hours**	**Practice Hours**
Compulsory Courses		**16**			
CB70104	Ho Chi Minh Ideology	2	30	30	0
CB70105	History of Vietnamese Communist Party	2	30	30	0
CB71405	Physical Education 3	1	30	0	30
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
TA70308	Intensive English 4	4	60	60	0
Elective Courses (Choose one General Education elective, one Major Foundation elective, and one Specialized Major elective)		**6**			
CB70206	Scientific research method	2	30	30	0
CT71114	Digital	2	60	0	60
CT71115	Production Management	2	30	30	0
CT71116	Linear planning	2	30	30	0
CT71127	Measurement sensor engineering	2	60	0	60
CT71128	Transferlifting technique	2	30	30	0
CT71129	Industrial Electronics	2	60	0	60
CT71130	English for Mechanical Engineering	2	30	30	0

SEMESTER 6: 22 cumulative credits (Compulsory: 20, Elective: 2)					
Course Code	**Course Name**	**Credits**	**Total Hours**	**Theory Hours**	**Practice Hours**
Compulsory Courses		**20**			
CB70106	Introduction of Laws	2	30	30	0
CT70131	Advanced mechanical practice 2	2	60	0	60
CT70132	Hydraulic Pneumatic System	3	75	15	60
CT70133	Automatic control engineering	3	60	30	30
CT70134	Machine building technology project	1	30	0	30
CT70135	Electrical and electronic equipment in industrial machines	3	60	30	30
CT70155	Advanced Mechanical Engineering Practice	2	60	0	60
CT70156	CAD/CAM-CNC Technology	4	90	30	60
Elective Courses (Choose 1 out of 3 courses)		**2**			
CT71117	Thermal Engineering	2	30	30	0
CT71118	Metal Technology	2	30	30	0
CT71119	Electromagnetic Fields	2	30	30	0
SEMESTER 7: 23 cumulative credits (Compulsory: 6, Elective: 17)					
Course Code	**Course Name**	**Credits**	**Total Hours**	**Theory Hours**	**Practice Hours**
Compulsory Courses		**6**			
CT70136	CNC machining technology	3	75	15	60
DT70109	PLC programming techniques	3	75	15	60
Elective Courses (Choose 1 out of 3 courses)		**17**			
CT71120	Fluid mechanics	3	45	45	0
CT71137	Mechanical mold design	2	30	30	0

CT71138	Application of CAE to mechanical design	2	60	0	60
CT71139	Welding Technology and Equipment	3	75	15	60
CT71140	Mold design technical project	1	30	0	30
CT71141	Special machining methods	2	30	30	0
CT71142	Reverse engineering technology and 3D printing	2	45	15	30
CT71143	Pressure processing technology and equipment	2	30	30	0
CT71144	Mechatronics System	3	45	45	0
CT71246	Measurement and control by computer	2	30	30	0
CT71247	Industrial Networks and SCADA System	2	45	15	30
CT71248	Automatic control engineering project	1	30	0	30
CT71249	Industrial Robots	3	60	30	30
CT71250	Automatic Control Equipment and Systems	2	45	15	30
CT71251	Automate the production process	2	30	30	0
CT71252	FMS and CIM system	2	30	30	0
DT70204	C programming techniques	3	60	30	30
DT70206	Microcontrollers	3	60	30	30
SEMESTER 8: 16 cumulative credits (Compulsory: 16, Elective: 0)					
Course Code	**Course Name**	**Credits**	**Total Hours**	**Theory Hours**	**Practice Hours**
Compulsory Courses		**16**			
CT70154	Engineering Internship	8	135	15	0
CT70153	Graduation thesis	8	135	15	0