الجامعـــــه الاسلاميـــــة للتكنولوجيا
UNIVERSITE ISLAMIQUE DETECHONOLOGIE
ISLAMIC UNIVERSITY OF TECHNOLOGY
DHAKA, BANGLADESH
ORGANISATION OF ISLAMIC COOPERATION

14 March 2025

As per the office order [No. ESTT/FC-07] on 26 September 2024 a committee was constituted in compliance with resolution no. 02 of the 94th meeting of the Academic Council held on 13 September 2024, to develop a logical and systematic coding structure for the courses offered in the new 3-year BScTE program, ensuring it aligns with the university's existing course catalogue and academic regulations. The committee sat for a number of meetings and discussed thoroughly about the existing coding structure of IUT and formulate the following policy for writing the course code of BScTE 3-year program.

Coding Structure for the Core Departmental Subjects

The generic structure of the courses will be written as follows-

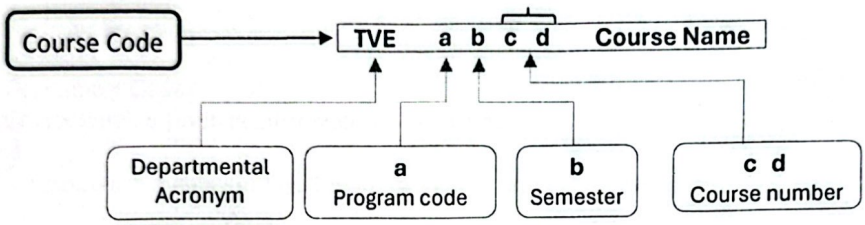

Fig. 1 Coding structure for the core departmental subjects

Example Course Name: **TVE 4103 Educational Psychology**

Where, **TVE**= Acronym for the department of Technical and Vocational Education
4 = Bachelor Program
1 = Semester
03 = Course number
Educational Psychology = Course name

The last two digits (c d) of the course number in **Fig. 1** need to comply with the following criteria-

- The **ODD last two digits**, such as 03, represents theoretical courses
- The **EVEN last two digits**, such as 04, represent Lab/ Practical courses
- The course code of theory and lab of the same subject must be in pairs, such as theory- TVE 4**103**, and lab- TVE 4**104**.
- In case a theory does not have a lab, then the **EVEN number** in the pair should be kept unused. For example, the theory course **TVE 4103 Educational Psychology** does not have any lab. As per the policy, the code **TVE 4104** should be kept unused.
- For Industrial Attachment, the last two digits will be **90**.
- For Project and Thesis, the last two digits will be **00**.

Coding Structure for the Hum/ Language/ Math/ Science Subjects

The generic structure of the courses will be written as follows-

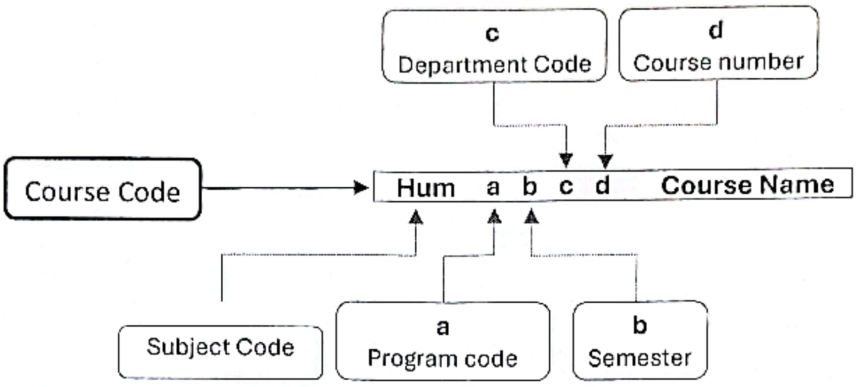

Fig. 2 Coding structure for the Hum/ Language/ Math/ Science Subjects

Example Course Name: **Hum 4132 Arabic 1**

Where, **Hum** = Hum subjects
4 = Bachelor Program
1 = Semester
3 = Department Code
2 = Course number [even number refers to Lab course]

The digit (d) of the course number in **Fig. 2** needs to comply with the following criteria-

- The **ODD last digit**, such as 1, represents theoretical courses
- The **EVEN last digit**, such as 2, represents Lab/ Practical courses
- The course code of theory and lab of the same subject must be in pairs

Course Code for the Specialized Subjects

The specialized course codes for the 3-year BScTE program, offered by the respective departments (MPE, EEE, CSE), should differ from their departmental course codes if the courses share the same title.

Semester-Wise Courses for the 3-Year BScTE Program

Based on the coding policy formulated above, semester-wise courses have been shown below-

First Semester

Course No.	Course Title	Contact hours	Credit hours
		L-T-Lab	
Hum 4132 or Hum 4134	Arabic I English I	0 - 0 - 2 0 - 0 - 2	1.00 1.00
Hum 4137	Islamiat	2 - 0 - 0	2.00
TVE 4103	Educational Psychology	3 - 0 - 0	3.00
TVE 4125	Methods and Techniques of Teaching	3 - 0 - 0	3.00
TVE 4126	Methods and Techniques of Teaching Lab	0 - 0 - 2	1.00
TVE 4151	Technical and Vocational Education Ethics and Society	3 - 0 - 0	3.00
Specialization Courses	Two specialization courses with their corresponding labs	6 - 0 – 3*	7.50*
	Total	**17 - 0 – 7***	**20.50***

*There might be a slight deviation in credit hours for different specialization courses offered by the respective departments.
L = Lecture; T = Tutorial; Lab = Laboratory / Workshop

First Semester (Specialization Courses)

A pool of specialization courses for the first semester, offered by the MPE, EEE, and CSE departments, is shown below. Any two courses, along with their corresponding labs (if any), will be offered from each specialization.

MPE Courses	EEE Courses	CSE Courses
ME 4195 Basic Thermodynamics (3.0) **ME 4196** Basic Thermodynamics Lab (0.75) **ME 4197** Material Engineering (3.0) **ME 4198** Material Engineering lab (0.75)	**EEE 4191** Electrical Power Transmission and Distribution (3.0) **EEE 4192** Electrical Power Transmission and Distribution Lab (0.75) **EEE 4195** Energy Conversion I (3.0) **EEE 4196** Energy Conversion I Lab (0.75) **EEE 4197** Digital Electronics (3.0) **EEE 4198** Digital Electronics Lab (0.75)	**CSE 4181** Structured Programming I (3.0) **CSE 4182** Structured Programming I Lab (1.5) **CSE 4183** Object Oriented Programming (3.0) **CSE 4184** Object Oriented Programming Lab (1.5) **CSE 4185** Introduction to Database Management Systems (3.0) **CSE 4186** Introduction to Database Management Systems Lab (1.0)

In the case of changing or updating courses by the MPE, EEE or CSE department, the TVE department may include this change and report this inclusion to the academic council meeting.

Second Semester

Course No.	Course Title	Contact hours	Credit hours
		L-T-Lab	
Hum 4232 or Hum 4234	Arabic II English II	0 - 0 - 2 0 - 0 - 2	1.00 1.00
Hum 4237	Islamic History, Science and Culture	3 - 0 - 0	3.00
TVE 4235	Educational Measurement and Evaluation	3 - 0 - 0	3.00
TVE 4239	Principles of Technical and Vocational Education	3 - 0 - 0	3.00
TVE 4258	Observation and Practice Teaching	0 - 1 - 4	2.50
TVE 4259	Educational Technology	2 - 0 - 0	2.00
TVE 4260	Educational Technology Lab	0 - 0 - 2	1.00
Specialization Courses	Two specialization courses with their corresponding labs	6 - 0 – 3*	7.50*
	Total	**17- 1 – 11***	**23.00***

*There might be a slight deviation in credit hours for different specialization courses offered by the respective departments.
L = Lecture; T = Tutorial; Lab = Laboratory / Workshop

Second Semester (Specialization Courses)

A pool of specialization courses for the second semester, offered by the MPE, EEE, and CSE departments, is shown below. Any two courses, along with their corresponding labs (if any), will be offered from each specialization.

MPE Courses	EEE Courses	CSE Courses
ME 4291 Mechanics of Materials (3.0) **ME 4292** Mechanics of Materials Lab (0.75) **ME 4293** Applied Thermodynamics (3.0) (Prerequisite: ME 4195 Basic Thermodynamics) **ME 4294** Applied Thermodynamics lab (0.75) (Prerequisite: ME 4196: Basic Thermodynamics lab) **ME 4295** Measurement, Instrumentation and Control (3.0) **ME 4296** Measurement, Instrumentation and Control Lab (0.75) **ME 4297** Fluid Mechanics I (3.0) **ME 4298** Fluid Mechanics I Lab (0.75).	**EEE 4291** Power System I (3.0) **EEE 4292** Power System I lab (0.75) **EEE 4295** Energy conversion II (3.0) **EEE 4296** Energy conversion II lab (0.75) **EEE 4297** Electronics I (3.0) **EEE 4298** Electronics I Lab (0.75)	**CSE 4275** System Analysis and Design (2.0) **CSE 4276** System Analysis and Design Lab (1.0) **CSE 4283** Data Structures (3.0) **CSE 4284** Data Structures Lab (1.5) **CSE 4285** Algorithms (3.0) **CSE 4286** Algorithms Lab (1.0) **CSE 4287** Data and Telecommunications (4.0)

In the case of changing or updating courses by the MPE, EEE or CSE department, the TVE department may include this change and report this inclusion to the academic council meeting.

Third Semester

Course Number	Course Title	Contract Hours	Credit Hours
		L – P – T	
TVE 4339	Entrepreneurship in TVET	3-0-0	3.00
Hum 4331	Social Studies and Accounting	3-0-0	3.00
Math 4337	Engineering Mathematics I	3-0-0	3.00
Specialization Courses	Three specialization courses with their corresponding labs	9-0-4.5*	11.50*
	Total	**18-0-4.5***	**20.50***

*There might be a slight deviation in credit hours for different specialization courses offered by the respective departments.
L = Lecture; T = Tutorial; Lab = Laboratory / Workshop

Third Semester (Specialization Courses)

A pool of specialization courses for the third semester, offered by the MPE, EEE, and CSE departments, is shown below. Any two courses, along with their corresponding labs (if any), will be offered from each specialization.

MPE Courses	EEE Courses	CSE Courses
ME 4393 Mechanics of Machines (3.0) **ME 4394** Mechanics of Machines Lab (0.75) **ME 4395** Principle of Heat and Mass Transfer (3.0) **ME 4396** Principle of Heat and Mass Transfer Lab (0.75) **ME 4397** Manufacturing Process (3.0) **ME 4398** Manufacturing Process Lab (0.75) **ME 4399** Probability and Statistics (3.0)	**EEE 4391** Power Electronics (3.0) **EEE 4392** Power Electronics Lab (0.75) **EEE 4393** Wireless Communication (3.00) **EEE 4394** Wireless Communication lab (0.75) **EEE 4395** Switchgear and Control Equipment I (3.0) **EEE 4396** Switchgear and Control Equipment I Lab (0.75) **EEE 4397** Telecommunication Principles (3.0) **EEE 4398** Telecommunication Principles Lab (0.75) **EEE 4399** Renewable Energy System (3.0)	**CSE 4375** Microprocessor and Assembly Language Programming (3.0) **CSE 4376** Microprocessor and Assembly Language Programming Lab (0.75) **CSE 4377** Web Programming (3.0) **CSE 4378** Web Programming Lab (0.75) **CSE 4381** Computer Networks (3.0) **CSE 4382** Computer Networks Lab (0.75) **CSE 4383** E-Commerce and Web Security (3.0)

In the case of changing or updating courses by the MPE, EEE or CSE department, the TVE department may include this change and report this inclusion to the academic council meeting.

Fourth Semester

Course Number	Course Title	Contract Hours	Credit Hours
		L – P – T	
TVE 4425	Engineering Management	3-0-0	3.00
Hum 4439	Technology Environment and Society	3-0-0	3.00
Math 4437	Engineering Mathematics II	3-0-0	3.00
Specialization Courses	Three specialization courses with their corresponding labs	9-0-4.5*	11.50*
	Total	**18-0-4.5***	**20.50***

*There might be a slight deviation in credit hours for different specialization courses offered by the respective departments.
L = Lecture; T = Tutorial; Lab = Laboratory / Workshop

Fourth Semester (Specialization Courses)

A pool of specialization courses for the fourth semester, offered by the MPE, EEE, and CSE departments, is shown below. Any two courses, along with their corresponding labs (if any), will be offered from each specialization.

MPE Courses	EEE Courses	CSE Courses
ME 4491 Machine Design – I (3.0) **ME 4493** Fluid Machinery (3.0) **ME 4494** Fluid Machinery Lab (0.75) **ME 4495** Engineering Economy and Finance (3.0) **ME 4497** Computational Mechanics (3.0) (Prerequisite: **ME 4291** Mechanics of Materials) **ME 4498** Computational Mechanics Lab (0.75) (Prerequisite: **ME 4292** Mechanics of Materials Lab) **ME 4499** Applied Heat Transfer (3.0) (Prerequisite: **ME 4395** Principle of Heat and Mass Transfer)	**EEE 4481** Optical Communication (3.0) **EEE 4482** Optical Communication Lab (0.75) **EEE 4483** Cellular Communication (3.00) **EEE 4484** Cellular Communication Lab (0.75) **EEE 4493** Measurement and Instrumentation (3.0) **EEE 4494** Measurement and Instrumentation Lab (0.75) **EEE 4495** Switchgear and Control Equipment II (3.00) **EEE 4496** Switchgear and Control Equipment II lab (0.75) **EEE 4497** Signal and System (3.0) **EEE 4498** Signal and System Lab (0.75) **EEE 4499** Power System Operation and Control (3.00)	**CSE 4471** Machine Learning (3.0) **CSE 4472** Machine Learning Lab (0.75) **CSE 4473** System programming (3.0) **CSE 4474** System programming Lab (0.75) **CSE 4475** Mobile Application Development (3.0) **CSE 4476** Mobile Application Development Lab (0.75) **CSE 4477** Wireless Network (2.0) **CSE 4478** Wireless Network Lab (0.75)

In the case of changing or updating courses by the MPE, EEE or CSE department, the TVE department may include this change and report this inclusion to the academic council meeting.

Fifth Semester

Course Number	Course Title	Contract Hours	Credit Hours
		L – P – T	
TVE 4590	Industrial Attachment	0-0-2	1.00
TVE 4511	Occupational Analysis and Course Construction	3-0-0	3.00
TVE 4517	Curriculum Development Administration and Supervision of Technical and Vocational Education	3-0-0	3.00
TVE 4541	History of Technical and Vocational Education	3-0-0	3.00
TVE 4543	Comparative Education	3-0-0	3.00
TVE 4572	Technical Report Writing and Presentation	0-2-2	2.00
Specialization Courses	Two specialization courses with their corresponding labs and Project / Thesis-I	6-0-9*	10.50*
	Total	**18-0-13***	**25.50***

*There might be a slight deviation in credit hours for different specialization courses offered by the respective departments.
L = Lecture; T = Tutorial; Lab = Laboratory / Workshop

Fifth Semester (Specialization Courses)

A pool of specialization courses for the fifth semester, offered by the MPE, EEE, and CSE departments, is shown below. Any two courses, along with their corresponding labs (if any), will be offered from each specialization.

MPE Courses	EEE Courses	CSE Courses
ME 4500* Project and Thesis-I (2.00) **ME 4591** Machine Design II (3.00) (Prerequisite: **ME 4491** Machine Design- I) **ME 4593** Automobile Engineering (3.00) **ME 4594** Automobile Engineering Lab (0.75) **ME 4595** Refrigeration and Air-Conditioning (3.00) (Prerequisite: **ME 4293** Applied Thermodynamics) **ME 4596** Refrigeration and Air-Conditioning Lab (0.75) (Prerequisite: **ME 4294** Applied Thermodynamics Lab) **ME 4597** Industrial Management (3.00)	**EEE 4500*** Project and Thesis (3.00) **EEE 4591** Microwave Engineering (3.0) **EEE 4592** Microwave Engineering Lab (0.75) **EEE 4593** Advanced Electronics I (3.0) **EEE 4594** Advanced Electronics I Lab (0.75) **EEE 4595** Microcontroller Based System Design (3.0) **EEE 4596** Microcontroller Based System Design Lab (0.75) **EEE 4597** Medical Electronics (3.0) **EEE 4598** Medical Electronics lab (0.75)	**CSE 4500*** Project and Thesis (3.00) **CSE 4577** Artificial Intelligence (3.0) **CSE 4578** Artificial Intelligence Lab (0.75) **CSE 4579** Introduction to Data Mining (3.0) **CSE 4581** Cryptography and Network security (3.0) **CSE 4593** Introduction to Cloud Computing (3.0) **CSE 4594** Introduction to Cloud Computing Lab (0.75) **CSE 4595** Bioinformatics (3.0) **CSE 4596** Bioinformatics Lab (0.75)

*Compulsory
In the case of changing or updating courses by the MPE, EEE or CSE department, the TVE department may include this change and report this inclusion to the academic council meeting.

Sixth Semester

Course Number	Course Title	Contract Hours	Credit Hours
		L – P – T	
TVE 4629	Instructional Technology and Communication Skills	3-0-0	3.00
TVE 4630	Instructional Technology and Communication Skills Lab	0-0-2	1.00
TVE 4651	Sociology of Education	3-0-0	3.00
TVE 4605	Institution and Industry Relationship	2-0-0	2.00
TVE 4635	Educational Measurement and Statistics	3-0-0	3.00
TVE 4636	Educational Measurement and Statistics Lab	0-0-2	1.00
TVE 4660	Observation and Practice Teaching	0-1-4	2.50
Specialization Courses	Two specialization courses with their corresponding labs and Project / Thesis-II	6-0-9*	10.50*
	Total	**17-1-17***	**26.00***

*There might be a slight deviation in credit hours for different specialization courses offered by the respective departments.
L = Lecture; T = Tutorial; Lab = Laboratory / Workshop

Sixth Semester (Specialization Courses)

A pool of specialization courses for the sixth semester, offered by the MPE, EEE, and CSE departments, is shown below. Any two courses, along with their corresponding labs (if any), will be offered from each specialization.

MPE Courses	EEE Courses	CSE Courses
ME 4600* Project and Thesis –II (4.00) **ME 4691** Power Plant Engineering (3.00) **ME 4693 Machine** Tools (3.00) **ME 4694** Machine Tools Lab (0.75)	**EEE 4600*** Project and Thesis (3.00) **EEE 4691** Utilization of Electrical Energy (3.0) **EEE 4692** Utilization of Electrical Energy Lab (0.75) **EEE 4693** Advanced Electronics II (3.0) **EEE 4694** Advanced Electronics II Lab (0.75) **EEE 4695** Power Generation (3.0) **EEE 4697** Power System II (3.0) **EEE 4698 Power** System II Lab (0.75)	**CSE 4600*** Project and Thesis (3.00) **CSE 4679** IT Organization and Management (3.0) **CSE 4683** Pattern recognition (3.0) **CSE 4684** Pattern recognition Lab (0.75) **CSE 4685** Internetworking Protocols (3.0) **CSE 4686** Internetworking Protocols Lab (0.75) **CSE 4689** Human Computer Interaction (3.0)

*Compulsory.
In the case of changing or updating courses by the MPE, EEE or CSE department, the TVE department may include this change and report this inclusion to the academic council meeting.

The committee approved the course code for the BScTE 3-year program, with the following recommendations for consideration in future curriculum revisions-

1. Instead of the engineering departments, the TVE department may offer the Thesis for students of the three specialization groups (ME, EEE, CSE).
2. The contact hours per semester need to be within 30 hours.

This report is submitted to the Vice Chancellor for his kind approval.

1. **Prof. Dr. Md. Rezaul Karim**
   Chairman of the Committee, Professor CEE Department
2. **Prof. Dr. Md. Tarek Uddin**
   Dean, FSTE & Professor, CEE Department
3. **Prof. Dr. Mohammad Rakibul Islam**
   Professor, EEE Department
4. **Prof. Dr. Muhammad Mahbub Alam**
   Head, ICT Centre & Professor, CSE Department
5. **Prof. Dr. Mohammad Monjurul Ehsan**
   Professor, MPE Department
6. **Prof. Dr. Md. Abdullah Al Mamun**
   Member Secretary & Professor, TVE Department