

COEP Technological University Pune
(A Unitary Public University of Govt. of Maharashtra)

School of Engineering and Technology
Curriculum Structure with Evaluation Scheme First Year B. Tech. in
Engineering

FREQUENTLY ASKED QUESTIONS FOR F.Y. B.TECH STUDENTS CBCS

SUBJECT SELECTION

(F.Y. Structure Effective from: A.Y. 2026-27)



F.Y. B. Tech. Engineering

Semester -I

Sem - I	Sr. No.	Course Title [#] /Collection ^{\$}	L	T	P	S	Cr	Categorisation
	01	Mathematics ^{\$} -I	2	1	-	1	3	BSC
	02	Applied Sciences ^{\$} -I	2	-	2	1	3	BSC
	03	Applied Sciences ^{\$} -II	1	-	-	1	1	BSC (Optional either in SEM I or II)
	04	Engineering Sciences ^{\$} - I	2	0	2	1	3	ESC
	05	Engineering Sciences ^{\$} - II	3	0	0	1	3	ESC
	06	Engineering Sciences ^{\$} - III	2	0	2	1	3	ESC
	07A*	Engineering Exploration [#]	-	-	6	6	3	VSEC
	07B*	Vocational and Skill Enhancement Courses ^{\$}	1	-	2	2	2	VSEC
	08	Ability Enhancements Courses ^{\$}	-	-	2	2	1	AEC
	09	Co-curricular Activities / Liberal Learning Course ^{\$}	-	-	2	2	1	CCA/LLC
							21/20/19	

Yellow shade indicates subjects to be filled in choices.

Engineering Science-I is identified as a compulsory course in the CBCS structure.

Branches	Mechanical , Electrical, Computer Science and Engineering Division 1 & 2, AIML And Instrumentation branches.	Civil , Electronics, Computer Science and Engineering Division 3 & 4, Metallurgy and Manufacturing branches
Semester I	Applied Sciences ^{\$} -II (1 Credit) choice	-----
	Engineering exploration	VSEC courses
	Communication Skills	Personality Development
Semester II	-----	Applied Sciences ^{\$} -II (1 Credit) choice
	VSEC courses	Engineering exploration
	Personality Development	Communication Skills

FREQUENTLY ASKED QUESTIONS FOR F.Y. B.TECH STUDENTS CBCS

Subject Selection – FY B.Tech. AY 2026–27

A. General Questions

Q1. What is the Choice Based Credit System (CBCS)?

CBCS allows students to select certain courses from the options prescribed in the curriculum, while some courses remain compulsory.

Q2. Are all subjects in First Year B.Tech. elective/optional?

No. The curriculum contains **compulsory courses as well as courses where students can exercise a choice**. The choice is available only in the categories specifically identified as “Any One.”

Q3. How many subjects do I have to select?

For each subject, minimum and maximum intake is decided depending on availability of faculty and laboratory capacity. Available capacity of course is distributed among total students as per your merit with this percentage candidates with CET rank (75%)/ candidates with JEE rank (16%)/other candidates with PCM marks (9%), Subjects will be allotted for this semester.

“Student must select subjects according to their preferences and priority. Based on the merit ranking, subject will be allotted accordingly and provisional allotment list will be prepared. It is mandatory for all subjects to provide their subject preferences. If student will not fill choices or not filled all preferences, subjects will be allotted by software and afterwards no change request will be entertained.	<u>upto 1.00 p.m. on Date</u> <u>23.09.2026</u>
Student can check allotted subjects in their UCMS account.	<u>upto 1.00 p.m. on Date</u> <u>24.09.2026</u>
In case of any grievances, Student can fill grievance form within specified time to dean.engineeringoffice@coeptech.ac.in	<u>upto 1.00 p.m. on Date</u> <u>25.09.2026</u>
After grievance period, final allotment list will be displayed. Student can check allotted subjects in their UCMS account.	<u>upto 1.00 p.m. on Date</u> <u>26.09.2026</u>
Accordingly timetable will be displayed. Regular classes will start from 28.09.2026 as per schedule time table and allotted class.	28.09.2026 as scheduled timetable

B. Semester-I Subject Selection

Q4. Which Mathematics-I course can I choose?

You can choose **one** of:

1. **Matrix Algebra and Calculus** – 26U1BSML002 followed by **Vector Calculus & Differential Equations in II semester**
2. **Linear Algebra** – 26U1BSML001 followed by **Probability & Statistics in II semester**

Both are 3-credit Basic Science Courses.

COEP Branch	Mathematics-I	Mathematics-II(in II semester)	Primary Career Orientation
Computer Engineering	Linear Algebra	Probability & Statistics	Computing, AI, Data Science
AIML	Linear Algebra	Probability & Statistics	AI/ML, Data Science
Electrical Engineering	Matrix Algebra & Calculus	Vector Calculus & Differential Equations	Core Electrical/Systems
E&TC	Matrix Algebra & Calculus	Vector Calculus & Differential Equations	Electronics/Communication
Instrumentation	Matrix Algebra & Calculus	Vector Calculus & Differential Equations	Instrumentation/Control
Mechanical	Matrix Algebra & Calculus	Vector Calculus & Differential Equations	Core Mechanical/Design
Manufacturing	Matrix Algebra & Calculus	Vector Calculus & Differential Equations	Manufacturing/Production
Civil	Matrix Algebra & Calculus	Vector Calculus & Differential Equations	Core Civil/Infrastructure
Metallurgy	Matrix Algebra & Calculus	Vector Calculus & Differential Equations	Materials/Metallurgy

Q5. Which Applied Sciences-I course can I choose?

You can choose **one** of:

1. **Engineering Physics** – 26U1BSPB001
2. **Quantum Physics** – 26U1BSPL001
3. **Engineering Chemistry** – 26U1BSCB001

The document specifies these as the available choices under Applied Sciences-I.

COEP Branch	Applied Science-I	Applied Science-III (in II semester)	Rationale for the combination
Computer Engineering	Engineering Physics	Quantum Physics	Computing foundations and emerging quantum technologies
Artificial Intelligence & Machine Learning	Engineering Physics	Quantum Physics	Physics foundations and emerging quantum computing
Electrical Engineering	Engineering Physics	Engineering Chemistry	Electrical technologies, energy and materials
Electronics & Telecommunication	Quantum Physics	Engineering Chemistry	Semiconductor/electronic technologies and advanced materials
Instrumentation & Control	Engineering Physics	Quantum Physics	Sensors, instrumentation and emerging technologies
Mechanical Engineering	Engineering Physics	Engineering Chemistry	Mechanics/materials and engineering materials
Civil Engineering	Engineering Chemistry	Engineering Physics	Construction materials/environmental applications and physical principles
Manufacturing Engineering	Engineering Chemistry	Engineering Physics	Materials/manufacturing processes and engineering applications
Metallurgy & Materials Engineering	Engineering Chemistry	Quantum Physics	Materials/chemistry and advanced materials technologies

Q6. What choices are available under Applied Sciences-II?

The available 1-credit options are:

- Electromagnetism
- Semiconductor Physics
- Biology for Engineers
- Emerging Technologies in Energy Storage
- Nanomaterials in Emerging Technologies

COEP Branch	Semester	Applied Science	First Preference – Career Guidance	Alternative
Computer	I	AS-II	Semiconductor Physics	Energy Storage
AIML	I	AS-II	Semiconductor Physics	Biology / Energy Storage
Electrical	I	AS-II	Electromagnetism	Semiconductor Physics / Energy Storage
Instrumentation	I	AS-II	Electromagnetism	Semiconductor Physics / Biology
Mechanical	I	AS-II	Energy Storage	Nanomaterials
E&TC	II	AS-IV	Semiconductor Physics	Electromagnetism
Manufacturing	II	AS-IV	Nanomaterials	Energy Storage
Computer – Div. 3 & 4	II	AS-IV	Semiconductor Physics	Electromagnetism
Civil	II	AS-IV	Nanomaterials	Energy Storage
Metallurgy	II	AS-IV	Nanomaterials	Energy Storage

Q7. What is Engineering Science-II (ES-II)?

ES-II is an **Engineering Science Elective Course** carrying 3 credits. Students select **one course from another discipline**.

Q8. Can a student select ES-II from their own department?

The curriculum specifically states “**Any One from other Disciplines.**” Therefore, the selection should be from a discipline other than the student's own discipline, subject to the options applicable to the student.

Q9. What are the ES-II choices?

The listed choices include:

- Basics of Civil Engineering
- AI for Multidisciplinary Applications
- Electrical Energy Utilization
- Applied Electronics and IoT
- Fundamentals of Measurement and Sensors
- Foundation in Mechanical Engineering
- Basics of Manufacturing Technology
- Nanomaterials

Student's Branch	Suggested ES-II from another discipline	Why it may be relevant
Civil	AI for Multidisciplinary Applications	AI applications in infrastructure and construction
Computer	Basics of Civil Engineering	Infrastructure and smart-city applications
AIML	Basics of Civil Engineering	AI applications in infrastructure
Electrical	Applied Electronics and IoT	Embedded systems and connected devices
E&TC	Electrical Energy Utilization	Electrical systems and energy applications
Instrumentation	AI for Multidisciplinary Applications	AI-enabled instrumentation and automation
Mechanical	Applied Electronics and IoT	Automation, robotics and smart machines
Manufacturing	AI for Multidisciplinary Applications	AI-enabled manufacturing
Metallurgy	AI for Multidisciplinary Applications	AI applications in materials/manufacturing

C. Engineering Science-III

Q10. Is ES-III also a choice-based course?

Yes. ES-III is listed as an **Engineering Science Elective Course – Any One from other Disciplines**.

Q11. What are the ES-III options?

Students can choose one from the listed options, including:

- Applied Mechanics
- Fundamentals of Cyber Security
- Basic Electrical Engineering
- Digital Logic Design
- Engineering Graphics
- Product Prototyping Practices
- Fundamentals of Corrosion Engineering

Student's Branch	Suggested ES-III from another discipline	Interdisciplinary orientation
Civil	Fundamentals of Cyber Security	Digital infrastructure and smart cities
Computer	Applied Mechanics	Engineering fundamentals and physical systems
AIML	Digital Logic Design	Hardware and AI-system foundations
Electrical	Fundamentals of Cyber Security	Cybersecurity of electrical/industrial systems
E&TC	Fundamentals of Cyber Security	Communication and network security
Instrumentation	Digital Logic Design	Digital instrumentation and control
Mechanical	Basic Electrical Engineering	Electrical systems, automation and EVs
Manufacturing	Basic Electrical Engineering	Industrial automation and smart manufacturing
Metallurgy	Engineering Graphics	Product/material design and engineering applications

Q12. Can I choose both ES-II and ES-III from the same discipline?

The document specifies “**Any One from other Disciplines**” for these Engineering Science Elective categories. The detailed restriction on whether the two choices must be from different disciplines is **not specified in the document**; students should follow the institute's choice-allocation rules.

D. Vocational and Skill Enhancement Courses

Q13. Is Engineering Exploration compulsory?

For the programmes identified in the curriculum, **Engineering Exploration** is a compulsory 3-credit Vocational and Skill Enhancement Course.

Q14. Can I select any Vocational and Skill Enhancement Course?

Only the courses prescribed for the student's **branch/division and semester** can be selected. The available 2-credit options include programming, web design, Python, electrical maintenance, PLC, CAD, EV architecture, manufacturing practices, robotics and drone operation, etc.

COEP Branch	Career-oriented VSEC choice
Computer Engineering	Python Programming / Programming for Problem Solving / Web Design
AIML	Python Programming / Programming for Problem Solving
Electrical Engineering	Electrical Maintenance & Safety / Electrical Workshop
Instrumentation	Fundamentals of PLC / Measurement & Sensors
Mechanical Engineering	EV Architecture / Computer Aided Drafting
Manufacturing Engineering	Manufacturing Practices & Fab Lab / Robotics & Drone Operation
Civil Engineering	Geomatic Engineering / Fundamentals of Construction Practices
E&TC Engineering	Data Preprocessing & Visualization / Digital Public Infrastructure
Metallurgy	Branch-specific option to be confirmed from allocation rules

E. Ability Enhancement Course

Q15. What is the choice under Ability Enhancement Courses in Semester-I?

The available options are:

- **Communication Skills** – 26U1AEC001
- **Personality Development** – 26U1AEC002

The applicable branches/divisions for each option are specified in the curriculum.

Q16. Can I choose Communication Skills irrespective of my branch?

No. The curriculum specifies the branches/divisions for Communication Skills and Personality Development. Students should select the option applicable to their programme.

For first semester, The AEC is allocated according to your **branch/division**. **Communication Skills** is prescribed for E&TC, Manufacturing, Computer Div. 3 & 4, Civil and Metallurgy, while **Personality Development** is prescribed for Mechanical, Electrical, Computer Div. 1 & 2, AIML and Instrumentation.

For second semester, **Personality Development** is prescribed for E&TC, Manufacturing, Computer Div. 3 & 4, Civil and Metallurgy, while **Communication Skills** is prescribed for Mechanical, Electrical, Computer Div. 1 & 2, AIML and Instrumentation

F. Liberal Learning Course

Q17. Is the Liberal Learning Course choice-based?

Yes. The curriculum specifies **Liberal Learning Course – Any One**.

Q18. What options are available for Liberal Learning?

Students can choose from a wide range of clubs, including:

1. Liberal Learning Course - Cultural Club
2. Liberal Learning Course - Drama and Film Club
3. Liberal Learning Course - Spandan Club
4. Liberal Learning Course - Arts and Crafts Club
5. Liberal Learning Course - Magazine
6. Liberal Learning Course - Debate, Quiz, Model United Nations, and Youth Parliamentary Club
7. Liberal Learning Course - Football Club
8. Liberal Learning Course - Astronomy Club
9. Liberal Learning Course - COEP "Mitra" Club
10. Liberal Learning Course - E-Cell
11. Liberal Learning Course - Data Science and Artificial Intelligence Club
12. Liberal Learning Course - Robot Study Circle Club
13. Liberal Learning Course - Ramanujan Maths and Science Club
14. Liberal Learning Course - Volleyball Club
15. Liberal Learning Course - Rocket Population Centre (RPC) Club
16. Liberal Learning Course - Satellite Club
17. Liberal Learning Course - Basketball and Badminton Club
18. Liberal Learning Course - Cricket Club
19. Liberal Learning Course - Spic Macay Club
20. Liberal Learning Course - Society of Woman Engineering Club
21. Liberal Learning Course - Civil Services Aspirant Club
22. Liberal Learning Course - Quantum Computing Club
23. Liberal Learning Course - Ignited Innovators of India Club
24. Liberal Learning Course - Chess and Carrom Club
25. Liberal Learning Course - Hockey Club
26. Liberal Learning Course - Kabaddi and Kho-Kho Club
27. Liberal Learning Course - Drone Club
28. Liberal Learning Course - Hyperloop Research and Innovation Club
29. Liberal Learning Course - Software Development Club
30. Liberal Learning Course - Cyber Security Club
31. Liberal Learning Course - National Service Scheme (NSS) Swayam siddha

Career / Interest	Recommended LLC
Entrepreneurship / Startup	E-Cell
AI / Data Science	Data Science and Artificial Intelligence Club
Software Development	Software Development Club
Cyber Security	Cyber Security Club
Robotics / Automation	Robot Study Circle Club
Drone Technology	Drone Club
Space Technology	Rocket Propulsion Centre / Satellite Club
Quantum Technology	Quantum Computing Club
Innovation / Product Development	Ignited Innovators of India Club
Civil Services	Civil Services Aspirant Club
Leadership / Public Speaking	Debate, Quiz, MUN & Youth Parliamentary Club
Arts / Creativity	Arts and Crafts Club
Culture / Performing Arts	Cultural Club / Drama and Film Club
Sports	Football / Cricket / Volleyball / Basketball & Badminton / Hockey / Kabaddi & Kho-Kho
Social Service	NSS Swayamsiddha

Q19. Can I select more than one Liberal Learning Course?

The curriculum specifies “**Any One**”. Therefore, one course should be selected unless the institute issues different instructions.

Following are guidelines and general information for helping students to choose subjects. It is not mandatory to follow the same. This information are purely technical / scientific and non-legal in nature and based on the information. The student shall be solely responsible for any intended use of this information. All the warranties or representations of any kind pertaining to the information or its content are hereby expressly excluded.