ವಿಶ್ವೇಶ್ವರಯ್ಯ ತಾಂತ್ರಿಕ ವಿಶ್ವವಿದ್ಯಾಲಯ
ಎಟಿಯು ಅಧಿನಿಯಮ ೧೯೯೪" ರ ಅಡಿಯಲ್ಲಿ ಕರ್ನಾಟಕ ಸರ್ಕಾರದಿಂದ ಸ್ಥಾಪಿತವಾದ ರಾಜ್ಯ ವಿಶ್ವವಿದ್ಯಾಲಯ
VISVESVARAYA TECHNOLOGICAL UNIVERSITY
State University of Government of Karnataka Established as per the VTU Act, 1994"JnanaSangama" Belagavi-590018, Karnataka, India

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VTU/MYS/VTU-COE/HMCS/63/2025-26 3649

Date: 14-10-2025

CIRCULAR

Sub: Registration for Professional Elective Courses (PEC) and Open Elective Courses (OEC) for VII Semester (Swappable with VIII Semester) of B.E./B.Tech – reg.

This is to inform about the Registration for Professional Elective Courses (PEC) and Open Elective Courses (OEC) are open in the https://online.vtu.ac.in/ portal. This Registration applies to students with **USN XXX22XXXXX (Regular), USN XXX23XX4XX (Diploma Lateral Entry) and USN XXX23XX6XX (B.Sc. Lateral Entry).**

Students who have opted the Internship in this semester, only these students shall take up the Professional Elective Courses (PEC with Code Bxx801x) and Open Elective Courses (OEC with Code Bxx802x) Courses other students are required to take up this PEC and OEC Courses in next upcoming semester. Students without opting the internship, if they complete the PEC and OEC Courses, it will not be considered in this semester those students should take up the PEC and OEC Courses in the next semester along with the Internship.

The students have to register online through https://online.vtu.ac.in. The procedure for registration is attached with the circular and also has uploaded in the portal https://online.vtu.ac.in.

All the Principals of Engineering Colleges are hereby informed to bring the content of this circular to the notice of all the students, Department Head's and faculties.

For any further clarification regarding the registration process, reach out to VTU COE through vtucoe.online@gmail.com or onlineprograms@vtu.ac.in.

By Order,

14/10/25

REGISTRAR

To,

1. The Principals of all Constituent, Affiliated, and Affiliated Autonomous Engineering Colleges and School of Architecture of VTU, Belagavi.
2. The Chairpersons/ program coordinators of all the Departments, Center's for Muddenahall, Belagavi, Kalaburagi and Mysuru - for information and needful.

Copy to:

1. The Hon'ble Vice- Chancellor through the secretary to VC, VTU Belagavi for kind information.
2. The PS to Registrar, VTU, Belagavi.
3. The Registrar (evaluation), VTU Belagavi for information.
4. The Finance Officer, VTU Belagavi for information.
5. The Regional Directors (I/c) of all the regional offices of VTU for circulation to all the principals of your region.
6. The Director ITI SMU, VTU Belagavi - to upload the Circular on the VTU Web portal.
7. All the concerned Special Officer/s and caseworkers/s of the academic section, VTU, Belagavi.
8. The Special Officer, Centre for Online Education [HMCS], VTU, Mysuru.
9. Office file.

Disclaimer

- **As per the guidelines, an Open Elective Course (OEC) refers to a course selected from other branches/disciplines and is considered multidisciplinary in nature.**
- **A Professional Elective Course (PEC) refers to a course selected from within the same branch/discipline. Students are advised to carefully ensure the correct categorization of their elective choices while registering.**
- **Selection of course:** Students must select a program from the approved PEC/OEC course list.
- Exams for these courses will be conducted by **VTU** and it will be online mode.

Below are the steps for:

A. Program enrollment

B. Attending quizzes

C. Exam registration/application

D. Exam Slot booking

E. Attending Online Exams

A. Program Enrollment Procedure

1. PEC/OEC registration application approval is mandatory. Once approved, students can proceed with program enrollment.
2. Click on the **program link** provided next to each program in the below mentioned department wise eligible course list
3. You will be taken to the **Program Overview page** directly, Click on **Apply now** button.
4. Now you are enrolled in the Program, Click on **Profile** Picture then Click **My Learning**.
5. All the Courses and programs that you are enrolled in will be in **My Learning**. To view courses within a program, click the **View** button. You can start accessing the Course content by clicking on the **Start** button in front of the Course.

B. Procedure to Attend Quiz

1. **Log in** to your account and navigate to the **Dashboard**.
2. Click on the **My Learning** tab in the **Dashboard**.
3. You will see a list of all the courses you are enrolled in.
4. Click on the **Start** button next to the course name.
5. You will be taken to the **Course Content** page.
6. Complete watching the video lessons for the course.
7. Scroll down to the **Quiz** section located under the video playing section.
8. Click on the **Quiz** section to view the available quizzes.
9. Select the quiz you want to attend and click on the **Start Quiz** button.
10. Read the **terms and conditions** carefully before proceeding.
11. Agree to the **terms and conditions** and click on the **Start Quiz** button again to begin the quiz.
12. Complete the quiz and **submit** your answers.
13. To **view** your quiz score, click on the **Leaderboard**.

14. You will see your **score** and **ranking** compared to other students.

NOTE : Each internal assessment consists of 25 questions, with a minimum passing score of 40% (10 out of 25). If a student fails to meet this threshold, a second attempt is allowed. However, in the second attempt, only the passing marks (40%) will be considered, regardless of the actual score.

C. Procedure for Exam Registration/Application

1. Click on **Exam** on the navigation bar on the **Home page**.
2. To register for PEC/OEC exams, click on **Exam Registration –** PEC/OEC
3. **Login** into your account by entering login credentials, it will take you directly to the **exam registration form.**
4. At the bottom, there will be a field to select the course. In the dropdown select the course which you would like to appear for the exam.
5. Click on **Save and Continue**. Exam fee will be displayed.
6. Click on **Pay now** and complete the payment.
7. You can check the status of your exam application under **My Application** in the student dashboard.

D. Procedure for Exam Slot Booking:

1. **Log in** to your account and navigate to the **Dashboard**.
2. Click on the **My Application** tab in the **Dashboard**.
3. Check that your application status is **Paid** for the course you want to book a slot for.
4. Click on the **Book Now** button in front of the course name.
5. You will be taken to the **Slot Booking** page. View all booked slot details displayed on this page, including date, time, and exam status information.

6. Click on the **Book a slot** button to initiate the slot booking process. A slot booking pop-up window will appear, prompting you to select your preferred slot details.
7. Select the **course** from the **dropdown** menu.
8. Choose a **date and time** slot from the available options.
9. Verify that the selected slot details are correct.
10. Click on the **Book now** button to **confirm** your slot booking.
11. View Booked Slot Details in **Slot Booking** page for confirmation.

NOTE : Quiz/assignment completion is mandatory before booking an exam slot.

E. Procedure for Attending Online Proctored Exam :

1. Go to **My Applications** and click **Book Now** next to your exam application.
2. On the **Slot booking page**, click the **Start** button next to your course at the scheduled date and time.
3. Read and agree to the **terms and conditions**.
4. Click **Enter Exam** to begin.
5. Complete the exam, **submit** your answers, and view your score

System requirement for online exam:

- Laptop or desktop with a working webcam & microphone.
- minimum of 4 GB RAM & dual core or above processor (pentium dual core or i3/i5/i7).
- 10mbps or above internet connection speed.
- latest updated Google Chrome browser.
- Operating system: Windows or Linux or Mac.

Instructions for attending online exam

- Students should take exams in a room with proper lighting and the background should be clear/plain.
- There should be no/minimal background noise.
- Students are not permitted to take exams in public places or while traveling. A quiet, private location is required
- Once the exam is started students should not navigate to other tabs/windows/browsers.
- Students are not permitted to wear earphones, headphones, or any electronic gadgets, including Bluetooth devices, during the exam/session.
- Exams will be automatically terminated if multiple faces/persons are detected.
- Students should not use or talk on mobile phones during examinations.
- Exams will be terminated automatically if the student's face is not clearly visible/if the student walks away from the screen during the examination.
- Closing the browser directly during the examination will result in termination of the exam automatically.

CIVIL ENGINEERING COURSES

Eligible Branches to take the Courses for PEC

Civil Engineering

Sl. No	Course Name	Weeks	Credits	Course Link
1	Finite Element Method And Computational Structural Dynamics	12 Weeks	3	https://online.vtu.ac.in/course-details/Finite-Element-Method-And-Computational-Structural-Dynamics

2	Mechanics Of Materials	12 Weeks	3	https://online.vtu.ac.in/course-details/Mechanics-Of-Materials
3	Municipal Solid Waste Management	12 Weeks	3	https://online.vtu.ac.in/course-details/municipal-solid-waste-management
4	Introduction to Multimodal Urban Transportation Systems (MUTS)	12 Weeks	3	https://online.vtu.ac.in/course-details/introduction-to-multimodal-urban-transportation-systems-muts
5	Bridge Engineering	12 Weeks	3	https://online.vtu.ac.in/course-details/bridge-engineering
6	Wastewater Treatment And Recycling	12 Weeks	3	https://online.vtu.ac.in/course-details/wastewater-treatment-and-recycling
7	Integrated Waste Management For A Smart City	12 Weeks	3	https://online.vtu.ac.in/course-details/integrated-waste-management-for-a-smart-city
8	Sustainable Transportation Systems	12 Weeks	3	https://online.vtu.ac.in/course-details/sustainable-transportation-systems
9	Advanced Foundation Engineering	12 Weeks	3	https://online.vtu.ac.in/course-details/Advanced-Foundation-Engineering
10	Applied Seismology for Engineers	12 Weeks	3	https://online.vtu.ac.in/course-details/applied-seismology-for-engineers
11	Environmental Remediation of Contaminated Sites	12 Weeks	3	https://online.vtu.ac.in/course-details/Environmental-Remediation-of-Contaminated-Sites
12	Geology and Soil Mechanics	12 Weeks	3	https://online.vtu.ac.in/course-details/geology-and-soil-mechanics
13	Hydraulic Engineering	12 Weeks	3	https://online.vtu.ac.in/course-details/Hydraulic-Engineering-300935
14	Industrial Wastewater Treatment	12 Weeks	3	https://online.vtu.ac.in/course-details/Industrial-Wastewater-Treatment

15	Maintenance and Repair of Concrete Structures	12 Weeks	3	https://online.vtu.ac.in/course-details/Maintenance-and-Repair-of-Concrete-Structures
16	Modern Construction Materials	12 Weeks	3	https://online.vtu.ac.in/course-details/Modern-Construction-materials
17	Soil Structure Interaction	12 Weeks	3	https://online.vtu.ac.in/course-details/Soil-Structure-Interaction
18	Unsaturated Soil Mechanics	12 Weeks	3	https://online.vtu.ac.in/course-details/unsaturated-soil-mechanics
19	Geosynthetics And Reinforced Soil Structures	12 Weeks	3	https://online.vtu.ac.in/coursedetails/geosynthetics-and-reinforcedsoil-structures
20	Ground Improvement	12 Weeks	3	https://online.vtu.ac.in/coursedetails/Ground-Improvement
21	Pavement Materials (Under Pavement Engineering)	12 Weeks	3	https://online.vtu.ac.in/coursedetails/pavement-materials-underpavement-engineering
22	Integrated Waste Management For A Smart City	12 Weeks	3	https://online.vtu.ac.in/coursedetails/integrated-wastemanagement-for-a-smart-city
23	Environmental Geomechanics	12 Weeks	3	https://online.vtu.ac.in/coursedetails/Environmental-Geomechanics
24	Analysis and Design of Bituminous Pavements	12 Weeks	3	https://online.vtu.ac.in/coursedetails/analysis-and-design-ofbituminous-pavements
25	Industrial Wastewater Treatment	12 Weeks	3	https://online.vtu.ac.in/coursedetails/Industrial-Wastewater-Treatment
26	Project Planning & Control	8 Weeks	2	https://online.vtu.ac.in/course-details/project-planning-control
27	Principles Of Construction Management	8 Weeks	2	https://online.vtu.ac.in/course-details/principles-of-construction-management

28	Matrix Method Of Structural Analysis	8 Weeks	2	https://online.vtu.ac.in/course-details/matrix-method-of-structural-analysis
29	Sustainable Engineering Concepts And Life Cycle Analysis	8 Weeks	2	https://online.vtu.ac.in/course-details/Sustainable-Engineering-Concepts-And-Life-Cycle
30	Digital Land Surveying and Mapping (DLS&M)	8 Weeks	2	https://online.vtu.ac.in/course-details/digital-land-surveying-and-mapping-dlsm-744688
31	Earthquake Resistant Design of Foundations	8 Weeks	2	https://online.vtu.ac.in/course-details/Earthquake-Resistant-Design-of-Foundations
32	Expansive Soil	8 Weeks	2	https://online.vtu.ac.in/course-details/Expansive-Soil-190512
33	Geomorphic Processes: Landforms and Landscapes	8 Weeks	2	https://online.vtu.ac.in/course-details/geomorphic-processes-landforms-and-landscape
34	Introduction to Accounting and Finance for Civil Engineers	8 Weeks	2	https://online.vtu.ac.in/course-details/Introduction-to-Accounting-and-Finance-for-Civil-Engineers
35	Introduction to Civil Engineering Profession	8 Weeks	2	https://online.vtu.ac.in/course-details/introduction-to-civil-engineering-profession
36	Subsurface Exploration : Importance And Techniques Involved	8 Weeks	2	https://online.vtu.ac.in/course-details/Subsurface-Exploration-Importance-And-Techniques-Involved
37	Earthquake Resistant Design of Foundations	8 Weeks	2	https://online.vtu.ac.in/course-details/Earthquake-Resistant-Design-of-Foundations
38	Plastic Waste Management	8 Weeks	2	https://online.vtu.ac.in/course-details/Plastic-Waste-Management
39	GPS Surveying	4 Weeks	1	https://online.vtu.ac.in/course-details/gps-surveying
40	Structural Dynamics for Civil Engineers - SDOF Systems	4 Weeks	1	https://online.vtu.ac.in/course-details/structural-dynamics-for-civil-engineers-sdof-systems

EI-BM-ML

Eligible Branches to take the Courses for PEC

Computer Science and Engineering/ Electrical, Electronics and Communications Engineering/ Machine Learning

Sl. No	Course Name	Weeks	Credits	Course Link
1	Fundamentals Of Micro And Nanofabrication	12 Weeks	3	https://online.vtu.ac.in/course-details/Fundamentals-Of-Micro-And-Nanofabrication
2	Getting Started With Competitive Programming	12 Weeks	3	https://online.vtu.ac.in/course-details/Getting-Started-with-Competitive-Programming
3	Social Network Analysis	12 Weeks	3	https://online.vtu.ac.in/course-details/social-network-analysis
4	Design & Implementation Of Human-Computer Interfaces	12 Weeks	3	https://online.vtu.ac.in/course-details/Design-Implementation-Of-Human-Computer-Interfaces
5	Ethical Hacking	12 Weeks	3	https://online.vtu.ac.in/course-details/Ethical-Hacking
6	Programming In Modern C++	12 Weeks	3	https://online.vtu.ac.in/course-details/programming-in-modern-c
7	Data Structure And Algorithms Using Java	12 Weeks	3	https://online.vtu.ac.in/course-details/data-structure-and-algorithms-using-java
8	Introduction To Algorithms And Analysis	12 Weeks	3	https://online.vtu.ac.in/course-details/Introduction-To-Algorithms-And-Analysis
9	Artificial Intelligence : Search Methods For Problem Solving	12 Weeks	3	https://online.vtu.ac.in/course-details/Artificial-Intelligence-Search-Methods-For-Problem-Solving-IIT-Madras

10	Fiber Optic Communication Technology	12 Weeks	3	https://online.vtu.ac.in/course-details/Fiber-Optic-Communication-Technology
11	Applied Optimization For Wireless, Machine Learning, Big Data	12 Weeks	3	https://online.vtu.ac.in/course-details/Applied-Optimization-For-Wireless-Machine-Learning-Big-Data-905635
12	Block Chain and its Applications	12 Weeks	3	https://online.vtu.ac.in/course-details/Blockchain-and-its-Applications
13	GPU Architectures and Programming	12 Weeks	3	https://online.vtu.ac.in/course-details/GPU-Architectures-And-Programming
14	Cloud Computing	12 Weeks	3	https://online.vtu.ac.in/course-details/Cloud-Computing
15	Android App Development with Kotlin Essentials - (App development Skills)	12 Weeks	3	https://online.vtu.ac.in/course-details/Credits-03-Android-App-Development-with-Kotlin-Essentials-App-development-Skills
16	Introduction to Digital Marketing	12 Weeks	3	https://online.vtu.ac.in/course-details/Credits-03-Introduction-to-Digital-Marketing
17	Master Excel Data Analysis and Visualization	12 Weeks	3	https://online.vtu.ac.in/course-details/Credits-03-Master-Excel-Data-Analysis-and-Visualization
18	Computational Systems Biology	12 Weeks	3	https://online.vtu.ac.in/coursedetails/Computational-Systems-Biology
19	Data Analytics with Python	12 Weeks	3	https://online.vtu.ac.in/course-details/Data-Analytics-with-Python
20	Data Mining	8 Weeks	2	https://online.vtu.ac.in/course-details/data- mining
21	User-centric Computing For Human-Computer Interaction	8 Weeks	2	https://online.vtu.ac.in/course-details/user-centric-computing-for-human-computer-inter action
22	Google Cloud Computing Foundations	8 Weeks	2	https://online.vtu.ac.in/course-details/Google-Cloud-Computing-Foundations

23	Discrete Time Signal Processing	8 Weeks	2	https://online.vtu.ac.in/course-details/Discrete-Time-Signal-Processing
24	Python For Data Science	4 Weeks	1	https://online.vtu.ac.in/course-details/Python-for-Data-Science

ELECTRONICS AND COMMUNICATION ENGINEERING

Eligible Branches to take the Courses for PEC

Electronics & Instrumentation Engineering/ Electronics & Telecommunication Engg/ Telecommunication Engineering/ Industrial IoT/ Medical Electronics Engineering/ Electronics Engg (VLSI Design and Technology)/ Electronics Communication (Advanced Communication Technology)/ Electronics and Computer Engineering/ Electronics and Communication Engineering

Sl. No	Course Name	Weeks	Credits	Course Link
1	Artificial Intelligence : Search methods for problem solving Prof.Deepak Khemani	12 Weeks	3	https://online.vtu.ac.in/course-details/Artificial-Intelligence-Search-Methods-For-Problem-Solving-IIT-Madras
2	Understanding Incubation and Enterprenurship Prof. B K Chakravarthy	12 Weeks	3	https://online.vtu.ac.in/course-details/Understanding-Incubation-and-Entrepreneurship-839780
3	Learning Anlystics Tools Prof. Rajkumar Rajendram	12 Weeks	3	https://online.vtu.ac.in/course-details/Learning-Analytics-Tools

4	Modern Digital Communication Techniques	12 Weeks	3	https://online.vtu.ac.in/course-details/Modern-digital-communication-techniques
5	Applied Linear Algebra For Signal Processing, Data Analytics And Machine Learning	12 Weeks	3	https://online.vtu.ac.in/coursedetails/Applied-Linear-Algebra-ForSignal-Processing-Data-AnalyticsAnd-Machine-Learning
6	Stochastic Control And Communication	12 Weeks	3	https://online.vtu.ac.in/coursedetails/stochastic-control-andcommunication
7	Principles And Techniques Of Modern Radar Systems	12 Weeks	3	https://online.vtu.ac.in/coursedetails/principles-and-techniques-ofmodern-radar-systems
8	Fiber Optic Communication Technology	12 Weeks	3	https://online.vtu.ac.in/coursedetails/Fiber-Optic-CommunicationTechnology
9	Probability Foundations For Electrical Engineers	12 Weeks	3	https://online.vtu.ac.in/coursedetails/Probability-Foundations-ForElectrical-Engineers
10	Mathematical Aspects Of Biomedical Electronic System Design	12 Weeks	3	https://online.vtu.ac.in/coursedetails/mathematical-aspects-ofbiomedical-electronic-system-design
11	Applied Optimization For Wireless, Machine Learning, Big Data	12 Weeks	3	https://online.vtu.ac.in/coursedetails/Applied-Optimization-ForWireless-Machine-Learning-Big-Data905635
12	Microelectronics: Devices To Circuits	12 Weeks	3	https://online.vtu.ac.in/coursedetails/Microelectronics-Devices-ToCircuits
13	Photonic integrated circuit	12 Weeks	3	https://online.vtu.ac.in/coursedetails/Photonic-integrated-circuit
14	Analog Ic Design	12 Weeks	3	https://online.vtu.ac.in/course-details/Analog-Ic-Design
15	Computer Vision And Image Processing - Fundamentals And Applications	12 Weeks	3	https://online.vtu.ac.in/course-details/computer-vision-and-image-processing-fundamentals-and-applications-973141

16	Physics of Nanoscale Devices	12 Weeks	3	https://online.vtu.ac.in/course-details/Physics-of-Nanoscale-Devices
17	Power Management Integrated Circuits	12 Weeks	3	https://online.vtu.ac.in/course-details/Power-Management-Integrated-Circuits
18	Semiconductor device modeling and Simulation	12 Weeks	3	https://online.vtu.ac.in/course-details/Semiconductor-device-modeling-and-Simulation
19	Advanced Computer Networks	12 Weeks	3	https://online.vtu.ac.in/course-details/advanced-computer-networks
20	Parallel Computer Architecture	12 Weeks	3	https://online.vtu.ac.in/course-details/parallel-computer-architecture
21	Data Analytics with Python	12 Weeks	3	https://online.vtu.ac.in/course-details/Data-Analytics-with-Python
22	Programming In Java	12 Weeks	3	https://online.vtu.ac.in/course-details/Programming-In-Java
23	Data Structure And Algorithms Using Java	12 Weeks	3	https://online.vtu.ac.in/coursedetails/data-structure-and-algorithmsusing-java
24	Fuzzy Sets, Logic and Systems & Applications	12 Weeks	3	https://online.vtu.ac.in/coursedetails/fuzzy-sets-logic-and-systemsapplications
25	Optical Wireless Communications for Beyond 5G Networks and IoT	12 Weeks	3	https://online.vtu.ac.in/coursedetails/Optical-Wireless Communications-for-Beyond-5GNetworks-and-IoT
26	Operations Research	8 Weeks	2	https://online.vtu.ac.in/course-details/Operations-Research
27	Intellactual Property Rigths and Competition Law	8 Weeks	2	https://online.vtu.ac.in/course-details/Intellectual-Property-Rights-and-Competition-Law
28	Big Data Computing	8 Weeks	2	https://online.vtu.ac.in/course-details/BIG-DATA-COMPUTING

29	Advanced Linear Continuous Control Systems: Applications With Matlab Programming And Simulink	8 Weeks	2	https://online.vtu.ac.in/course-details/Advanced-Linear-Continuous-Control-Systems-Applications-With-Matlab-Programming-And- Simulink
30	Analog Circuits	8 Weeks	2	https://online.vtu.ac.in/course-details/Anal og-Circuits
31	CMOS Digital VLSI Design	8 Weeks	2	https://online.vtu.ac.in/course-details/CMOS-Digital-VLSI-Design
32	Electronics Enclosures Thermal issues	8 Weeks	2	https://online.vtu.ac.in/course-details/electronics-enclosures-thermal-issues
33	Microwave Integrated Circuits	8 Weeks	2	https://online.vtu.ac.in/course-details/microwave-integrated-circuits
34	Design Of Power Electronic Converters	8 Weeks	2	https://online.vtu.ac.in/course-details/Design-of-Power-Electronic-Converters
35	VLSI Interconnects	8 Weeks	2	https://online.vtu.ac.in/course-details/VLSI-Interconnects
36	System Design Through Verilog	8 Weeks	2	https://online.vtu.ac.in/course-details/System-Design-Through-Verilog
37	Fundamentals Of MIMO Wireless Communication	8 Weeks	2	https://online.vtu.ac.in/course-details/Fundamentals-Of-MIMO-Wireless-Communication-537713
38	Foundations of Wavelets and Multirate Digital Signal Processing	4 Weeks	1	https://online.vtu.ac.in/course-details/Foundations-of-Wavelets-and-Multirate-Digital-Signal-Processing
39	Medical Image Analysis	4 Weeks	1	https://online.vtu.ac.in/course-details/Medical-Image-Analysis
40	Recent Advances in Transmission Insulators	4 Weeks	1	https://online.vtu.ac.in/course-details/recent-advances-in-transmission-insulators-897570

BIOTECHNOLOGY AND BIOENGINEERING

Eligible Branches to take the Courses for PEC

Agriculture Engineering/ Biomedical Engineering/ Biotechnology and Bioengineering

Sl. No	Course Name	Weeks	Credits	Course Link
1	Medical Image Analysis	12 Weeks	3	https://online.vtu.ac.in/course-details/Medical-Image-Analysis
2	Introduction To Biomedical Imaging Systems	12 Weeks	3	https://online.vtu.ac.in/course-details/Introduction-To-Biomedical-Imaging-Systems
3	Genome Editing And Engineering	12 Weeks	3	https://online.vtu.ac.in/course-details/Genome-Editing-And-Engineering
4	Conservation Geography	12 Weeks	3	https://online.vtu.ac.in/course-details/Conservation-Geography
5	Experimental Biotechnology	12 Weeks	3	https://online.vtu.ac.in/course-details/Experimental-Biotechnology
6	Industrial Biotechnology	12 Weeks	3	https://online.vtu.ac.in/course-details/Industrial-Biotechnology
7	Environmental Chemistry and Microbiology	12 Weeks	3	https://online.vtu.ac.in/course-details/Environmental-Chemistry-and-Microbiology
8	Interactomics: Basics & Applications	12 Weeks	3	https://online.vtu.ac.in/course-details/Interactomics-Basics-Applications
9	Maternal Infant Young Child Nutrition	12 Weeks	3	https://online.vtu.ac.in/course-details/maternal-infant-young-child-nutrition

10	Thermodynamics for Biological Systems : Classical and Statistical Aspect	12 Weeks	3	https://online.vtu.ac.in/course-details/Thermodynamics-for-Biological-Systems-Classical-and-Statistical-Aspect
11	Maternal Infant Young Child Nutrition	12 Weeks	3	https://online.vtu.ac.in/coursedetails/maternal-infant-young-childnutrition
12	RNA Biology	12 Weeks	3	https://online.vtu.ac.in/coursedetails/RNA-Biology
13	Biomechanics	12 Weeks	3	https://online.vtu.ac.in/coursedetails/Biomechanics
14	Bio Informatics: Algorithms and Applications	12 Weeks	3	https://online.vtu.ac.in/coursedetails/Bio-Informatics-Algorithms-andApplications
15	Computational Systems Biology	12 Weeks	3	https://online.vtu.ac.in/coursedetails/Computational-Systems-Biology
16	Conservation Economics	12 Weeks	3	https://online.vtu.ac.in/coursedetails/conservation-economics423872
17	Host-Pathogen Interaction (Immunology)	12 Weeks	3	https://online.vtu.ac.in/coursedetails/Host-Pathogen-InteractionImmunology
18	Interactomics : Basics & Applications	12 Weeks	3	https://online.vtu.ac.in/coursedetails/Interactomics-Basics-Applications
19	Optical Spectroscopy and Microscopy : Fundamentals of optical measurements and instrumentation	12 Weeks	3	https://online.vtu.ac.in/coursedetails/Optical-Spectroscopy-andMicroscopy-Fundamentals-of-opticalmeasurements-and-instrumentation
20	Modern Food Packaging Technologies: Regulatory Aspects and Global Trends	12 Weeks	3	https://online.vtu.ac.in/coursedetails/Modern-Food-PackagingTechnologies-Regulatory-Aspects-andGlobal-Trends
21	Novel Technologies For Food Processing And Shelf Life Extension	12 Weeks	3	https://online.vtu.ac.in/coursedetails/novel-technologies-for-foodprocessing-and-shelf-life-extension

22	Cooling Technology: Why and How utilized in Food Processing and allied Industries	12 Weeks	3	https://online.vtu.ac.in/coursedetails/cooling-technology-why-andhow-utilized-in-food-processing-andallied-industries
23	Introductory Mathematical Methods for Biologists	8 Weeks	2	https://online.vtu.ac.in/course-details/Introductory-Mathematical-Methods-for-Biologist s
24	Medical Biomaterials	8 Weeks	2	https://online.vtu.ac.in/course-details/Medical-Biomaterials
25	Nanotechnology in Agriculture	8 Weeks	2	https://online.vtu.ac.in/course-details/Nanotechnology-In-Agriculture
26	Organ Printing	8 Weeks	2	https://online.vtu.ac.in/course-details/Orga n-Printing
27	Introduction To Mechanobiology	8 Weeks	2	https://online.vtu.ac.in/course-details/Introduction-To-Mechanobiology
28	Bioengineering: An Interface with Biology and Medicine	8 Weeks	2	https://online.vtu.ac.in/course-details/Bioengineering-An-Interface-with-Biology-and-M edicine
29	Biointerface Engineering	8 Weeks	2	https://online.vtu.ac.in/course-details/Biointerface-Engineering
30	Biostatistics and Design of experiments	8 Weeks	2	https://online.vtu.ac.in/course-details/Biostatistics-and-Design-of-experiments
31	Data Analysis for Biologists	8 Weeks	2	https://online.vtu.ac.in/course-details/Data-Analysis-for-Biologists
32	Cellular Biophysics: A Framework For Quantitative Biology	8 Weeks	2	https://online.vtu.ac.in/course-details/Cellular-Biophysics-A-Framework-For-Quantitativ e-Biology
33	Computer Aided Drug Design	8 Weeks	2	https://online.vtu.ac.in/course-details/Computer-Aided-Drug-Design
34	Plant Cell Bioprocessing	8 Weeks	2	https://online.vtu.ac.in/course-details/Plant
35	Data Analysis For Biologists	8 Weeks	2	https://online.vtu.ac.in/course-details/Data-Analysis-for-Biologists

36	Biointerface Engineering	8 Weeks	2	https://online.vtu.ac.in/course-details/Biointerface-Engineering
37	Demystifying The Brain	4 Weeks	1	https://online.vtu.ac.in/course-details/Demystifying-The-Brain

COMPUTER SCIENCE ENGINEERING COURSES

Eligible Branches to take the Courses for PEC

Artificial Intelligence & Data Science/ Artificial Intelligence and Machine Learning/ Computer & Communication Engineering/ Computer Science & Business System/ Computer Science & Design/ Computer Science & Engineering (IoT)/ CSE (Artificial Intelligence)/ CSE (Cyber Security)/ CSE (Data Science)/ CSE (IoT & Cyber Security including Block Chain Technology)/ Data Science/ Information Science & Engineering/ Computer Science and Engineering.

Sl. No	Course Name	Weeks	Credits	Course Link
1	Advanced Computer Networks	12 Weeks	3	https://online.vtu.ac.in/course-details/advanced-computer-networks
2	Circuit Complexity Theory	12 Weeks	3	https://online.vtu.ac.in/course-details/circuit-complexity-theory
3	Computational Number Theory and Algebra	12 Weeks	3	https://online.vtu.ac.in/course-details/computational-number-theory-and-algebra
4	Parallel Computer Architecture	12 Weeks	3	https://online.vtu.ac.in/course-details/parallel-computer-architecture

5	Quantum Algorithms and Cryptography	12 Weeks	3	https://online.vtu.ac.in/course-details/quantum-algorithms-and-cryptography
6	Switching Circuits and Logic Design	12 Weeks	3	https://online.vtu.ac.in/course-details/switching-circuits-and-logic-design
7	Affective Computing	12 Weeks	3	https://online.vtu.ac.in/course-details/Affective-Computing
8	Foundations of Cyber Physical Systems	12 Weeks	3	https://online.vtu.ac.in/course-details/Foundations-of-Cyber-Physical-Systems
9	GPU Architectures and Programming	12 Weeks	3	https://online.vtu.ac.in/course-details/GPU-Architectures-And-Programming
10	Reinforcement Learning	12 Weeks	3	https://online.vtu.ac.in/course-details/Reinforcement-Learning
11	Secure Computation: Part I	12 Weeks	3	https://online.vtu.ac.in/course-details/Secure-Computation-Part-I
12	Social Networks	12 Weeks	3	https://online.vtu.ac.in/course-details/Social-Networks
13	Introduction To Industry 4.0 And Industrial Internet Of Things	12 Weeks	3	https://online.vtu.ac.in/course-details/Introduction-To-Industry-40-And-Industrial-Internet-Of-Things
14	Reinforcement Learning	12 Weeks	3	https://online.vtu.ac.in/coursedetails/Reinforcement-Learning
15	Parameterized Algorithms	12 Weeks	3	https://online.vtu.ac.in/coursedetails/parameterized-algorithms
16	Applied Accelerated Artificial Intelligence	12 Weeks	3	https://online.vtu.ac.in/coursedetails/Applied-AcceleratedArtificial-Intelligence
17	Social Networks	12 Weeks	3	https://online.vtu.ac.in/coursedetails/Social-Networks
18	Computational Complexity	12 Weeks	3	https://online.vtu.ac.in/coursedetails/computational-complexity

19	Introduction To Game Theory And Mechanism Design	12 Weeks	3	https://online.vtu.ac.in/coursedetails/Introduction-To-GameTheory-And- Mechanism-Design
20	Advanced Distributed Systems	12 Weeks	3	https://online.vtu.ac.in/coursedetails/advanced-distributed-systems
21	Privacy And Security In Online Social Media	12 Weeks	3	https://online.vtu.ac.in/coursedetails/Privacy-and-Security-inOnline-Social-Media
22	Ethical Hacking	12 Weeks	3	https://online.vtu.ac.in/coursedetails/Ethical-Hacking
23	Introduction To Haskell Programming	8 Weeks	2	https://online.vtu.ac.in/course-details/Introduction-To-Haskell-Programming
24	Data Science For Engineers	8 Weeks	2	https://online.vtu.ac.in/course-details/Data-Science-for-Engineers-815403
25	Google Cloud Computing Foundations	8 Weeks	2	https://online.vtu.ac.in/course-details/Google-Cloud-Computing-Foundations
26	Edge Computing	8 Weeks	2	https://online.vtu.ac.in/course-details/edge-computing
27	Embedded System Design with ARM	8 Weeks	2	https://online.vtu.ac.in/course-details/embedded-system-design-with-arm
28	Optimisation for Machine Learning: Theory and Implementation(Hindi)	8 Weeks	2	https://online.vtu.ac.in/course-details/optimisation-for-machine-learning-theory-and-implementation-hindi
29	User-centric Computing For Human-Computer Interaction	8 Weeks	2	https://online.vtu.ac.in/course-details/user-centric-computing-for-human-computer-inter action
30	AI: Constraint Satisfaction	8 Weeks	2	https://online.vtu.ac.in/course-details/AI-Constraint-Satisfaction-836131
31	Introduction To Soft Computing	8 Weeks	2	https://online.vtu.ac.in/course-details/Introduction-To-Soft-Computing

32	Foundation of Cloud IoT Edge ML	8 Weeks	2	https://online.vtu.ac.in/course-details/Foundation-of-Cloud-IOT-Edge-ML-487203
33	Hardware Modeling Using Verilog	8 Weeks	2	https://online.vtu.ac.in/coursedetails/Hardware-Modeling-UsingVerilog
34	Machine Learning For Earth System Sciences	8 Weeks	2	https://online.vtu.ac.in/coursedetails/Machine-Learning-For-EarthSystem- Sciences
35	Hardware Modeling Using Verilog	8 Weeks	2	https://online.vtu.ac.in/coursedetails/Hardware-Modeling-UsingVerilog
36	Machine Learning For Earth System Sciences	8 Weeks	2	https://online.vtu.ac.in/coursedetails/Machine-Learning-For-EarthSystem- Sciences
37	Software Testing (IITKGP)	4 Weeks	1	https://online.vtu.ac.in/course-details/Software-Testing-IITKGP
38	Systems and Usable Security	4 Weeks	1	https://online.vtu.ac.in/course-details/systems-and-usable-security-979026

ELECTRICAL AND ELECTRONICS ENGINEERING

Eligible Branches to take the Courses for PEC

Electronics & Instrumentation Engineering/ Electronics & Telecommunication Engg/ Telecommunication Engineering/ Industrial IoT/ Medical Electronics Engineering/ Electronics Engg (VLSI Design and Technology)/ Electronics Communication (Advanced Communication Technology)/ Electronics and Computer Engineering/ Electronics and Communication Engineering/Electrical & Electronics Engineering (EE)

Sl. No	Course Name	Weeks	Credits	Course Link
1	Design of Photovoltaic Systems	12 Weeks	3	https://online.vtu.ac.in/course-details/design-of-photovoltaic-systems
2	Smart Grid: Basics To Advanced Technologies	12 Weeks	3	https://online.vtu.ac.in/course-details/Smart-Grid-Basics-To-Advanced-Technologies
3	Enclosure Design Of Electronics Equipment	12 Weeks	3	https://online.vtu.ac.in/course-details/enclosure-design-of-electronics-equipment
4	Microelectronics: Devices To Circuits	12 Weeks	3	https://online.vtu.ac.in/course-details/Microelectronics-Devices-To-Circuits
5	Digital Control in Switched Mode Power Converters and FPGA-based Prototyping	12 Weeks	3	https://online.vtu.ac.in/course-details/digital-control-in-switched-mode-power-converters-and-fpga-based-prototyping
6	Applied Electromagnetics For Engineers	12 Weeks	3	https://online.vtu.ac.in/course-details/Applied-Electromagnetics-For-Engineers
7	Analog Ic Design	12 Weeks	3	https://online.vtu.ac.in/course-details/Analog-Ic-Design
8	Computer Vision And Image Processing - Fundamentals And Applications	12 Weeks	3	https://online.vtu.ac.in/course-details/computer-vision-and-image-processing-fundamentals-and-applications-973141

9	Optical Wireless Communications for Beyond 5G Networks and IoT	12 Weeks	3	https://online.vtu.ac.in/course-details/Optical-Wireless-Communications-for-Beyond-5G-Networks-and-IoT
10	Physics of Nanoscale Devices	12 Weeks	3	https://online.vtu.ac.in/course-details/Physics-of-Nanoscale-Devices
11	Power Management Integrated Circuits	12 Weeks	3	https://online.vtu.ac.in/course-details/Power-Management-Integrated-Circuits
12	Power System Dynamics, Control and Monitoring	12 Weeks	3	https://online.vtu.ac.in/course-details/power-system-dynamics-control-and-monitoring
13	Semiconductor device modeling and Simulation	12 Weeks	3	https://online.vtu.ac.in/course-details/Semiconductor-device-modeling-and-Simulation
14	Microelectronics: Devices To Circuits	12 Weeks	3	https://online.vtu.ac.in/coursedetails/Microelectronics-Devices-ToCircuits
15	Fuzzy Sets, Logic and Systems & Applications Programming And Simulink	12 Weeks	3	https://online.vtu.ac.in/coursedetails/fuzzy-sets-logic-and-systemsapplications
16	Advances In Uhv Transmission And Distribution	8 Weeks	2	https://online.vtu.ac.in/course-details/Advances-In-Uhv-Transmission-And-Distribution
17	Advanced Linear Continuous Control Systems: Applications With Matlab	8 Weeks	2	https://online.vtu.ac.in/course-details/Advanced-Linear-Continuous-Control-Systems-Applications-With-Matlab-Programming-And-Simulink
18	Dc Microgrid And Control Systems	8 Weeks	2	https://online.vtu.ac.in/course-details/Dc-Microgrid-and-Control-Systems
19	Electrical Distribution System Analysis	8 Weeks	2	https://online.vtu.ac.in/course-details/Electrical-Distribution-System-Analysis
20	VLSI Interconnects	8 Weeks	2	https://online.vtu.ac.in/course-details/VLSI-Interconnects

21	System Design Through Verilog	8 Weeks	2	https://online.vtu.ac.in/course-details/System-Design-Through-Verilog
22	Analog Circuits	8 Weeks	2	https://online.vtu.ac.in/course-details/Analog-Circuits
23	CMOS Digital VLSI Design	8 Weeks	2	https://online.vtu.ac.in/course-details/CMOS-Digital-VLSI-Design
24	Electronics Enclosures Thermal issues	8 Weeks	2	https://online.vtu.ac.in/course-details/electronics-enclosures-thermal-issues
25	Microwave Integrated Circuits	8 Weeks	2	https://online.vtu.ac.in/course-details/microwave-integrated-circuits
26	Design Of Power Electronic Converters	8 Weeks	2	https://online.vtu.ac.in/course-details/Design-of-Power-Electronic-Converters
27	Foundations of Wavelets and Multirate Digital Signal Processing	8 Weeks	2	https://online.vtu.ac.in/course-details/Foundations-of-Wavelets-and-Multirate-Digital-Signal-Processing
28	Medical Image Analysis	8 Weeks	2	https://online.vtu.ac.in/course-details/Medical-Image-Analysis
29	Recent Advances in Transmission Insulators	8 Weeks	2	https://online.vtu.ac.in/course-details/recent-advances-in-transmission-insulators-897570
30	An Introduction To Coding Theory	8 Weeks	2	https://online.vtu.ac.in/course-details/an-introduction-to-coding-theory
31	Analysis And Design Principles Of Microwave Antennas	8 Weeks	2	https://online.vtu.ac.in/course-details/analysis-and-design-principles-of-microwave-antennas
32	Design Of Power Electronic Converters	8 Weeks	2	https://online.vtu.ac.in/course-details/Design-of-Power-Electronic-Converters
33	Fundamentals Of MIMO Wireless Communication	8 Weeks	2	https://online.vtu.ac.in/course-details/Fundamentals-Of-MIMO-Wireless-Communication-537713
34	Solar Energy Engineering And Technology	12 Weeks	3	https://online.vtu.ac.in/course-details/solar-energy-engineering-and-technology

AEROSPACE ENGINEERING

Eligible Branches to take the Courses for PEC

Aeronautical Engineering/ Aerospace Engineering

Sl. No	Course Name	Weeks	Credits	Course Link
1	Aircraft Design	12 Weeks	3	https://online.vtu.ac.in/course-details/Aircraft-Design-437894
2	Computational Science in Engineering	8 Weeks	2	https://online.vtu.ac.in/course-details/Computational-Science-in-Engineering-538206
3	Fundamentals of Supersonic and Hypersonic Flow	12 Weeks	3	https://online.vtu.ac.in/course-details/Fundamentals-of-Supersonic-and-Hypersonic-Flow
4	Introduction to Aircraft Control System	12 Weeks	3	https://online.vtu.ac.in/course-details/Introduction-to-Aircraft-Control-System
5	Introduction to Ancient Indian Technology	12 Weeks	3	https://online.vtu.ac.in/course-details/Introduction-to-Ancient-Indian-Technology
6	Introduction to Experiments in Flight	12 Weeks	3	https://online.vtu.ac.in/course-details/Introduction-to-Experiments-in-Flight
7	Lighter than Air Systems	8 Weeks	2	https://online.vtu.ac.in/course-details/Lighter-than-Air-Systems-458044
8	Wind Energy	4 Weeks	1	https://online.vtu.ac.in/course-details/Wind-Energy

9	Combustion of Solid Fuels and Propellants	12 Weeks	3	https://online.vtu.ac.in/course-details/Combustion-of-Solid-Fuels-and-Propellants
10	Introduction to Launch Vehicle Analysis and Design	12 Weeks	3	https://online.vtu.ac.in/course-details/introduction-to-launch-vehicle-analysis-and-design-iit-bombay-253636

MECHANICAL ENGINEERING

Eligible Branches to take the Courses for PEC

Industrial & Production Engineering/ Mechatronics/ Robotics & Automation/ Robotics and Artificial Intelligence/ Mechanical Engineering

Sl. No	Course Name	Weeks	Credits	Course Link
1	Advanced Dynamics	12 Weeks	3	https://online.vtu.ac.in/course-details/Advanced-Dynamics
2	Advanced Robotics	12 Weeks	3	https://online.vtu.ac.in/course-details/Advanced-Robotics
3	Advanced Thermodynamics And Combustion	12 Weeks	3	https://online.vtu.ac.in/course-details/Advanced-Thermodynamics-And-Combustion
4	Aircraft Propulsion	12 Weeks	3	https://online.vtu.ac.in/course-details/Aircraft-Propulsion
5	Applied Ergonomics	12 Weeks	3	https://online.vtu.ac.in/course-details/applied-ergonomics
6	Computational Fluid Dynamics For Incompressible Flows	12 Weeks	3	https://online.vtu.ac.in/course-details/Computational-Fluid-Dynamics-for-Incompressible-Flows
7	Data-Enabled Tribological Engineering: From Experiments to Predictive Models	12 Weeks	3	https://online.vtu.ac.in/course-details/data-enabled-tribological-engineering-from-experiments-to-predictive-models

8	Design Of Mechatronic Systems	12 Weeks	3	https://online.vtu.ac.in/course-details/design-of-mechatronic-systems
9	Dynamic Behaviour Of Materials	12 Weeks	3	https://online.vtu.ac.in/course-details/Dynamic-Behaviour-Of-Materials-954424
10	Experimental Stress Analysis	12 Weeks	3	https://online.vtu.ac.in/course-details/Experimental-Stress-Analysis
11	Explosions and Safety	12 Weeks	3	https://online.vtu.ac.in/course-details/Explosions-and-Safety
12	Functional And Conceptual Design	12 Weeks	3	https://online.vtu.ac.in/course-details/Functional-And-Conceptual-Design
13	Fundamentals of Combustion	12 Weeks	3	https://online.vtu.ac.in/course-details/Fundamentals-of-Combustion
14	Fundamentals Of Convective Heat Transfer	12 Weeks	3	https://online.vtu.ac.in/course-details/fundamentals-of-convective-heat-transfer
15	Fundamentals Of Nuclear Power Generation	12 Weeks	3	https://online.vtu.ac.in/course-details/Fundamentals-Of-Nuclear-Power-Generation
16	Mathematical Modeling Of Manufacturing Processes	12 Weeks	3	https://online.vtu.ac.in/course-details/mathematical-modeling-of-manufacturing-processes
17	Metal Additive Manufacturing	12 Weeks	3	https://online.vtu.ac.in/course-details/Metal-Additive-Manufacturing
18	Nonlinear Adaptive Control	12 Weeks	3	https://online.vtu.ac.in/course-details/Nonlinear-Adaptive-Control
19	Phase Transformation in Materials	12 Weeks	3	https://online.vtu.ac.in/course-details/Phase-Transformation-in-Materials
20	Product Design and Manufacturing	12 Weeks	3	https://online.vtu.ac.in/course-details/Product-Design-and-Manufacturing
21	Robotics: Basics and Selected Advanced Concepts	12 Weeks	3	https://online.vtu.ac.in/course-details/Robotics-Basics-and-Selected-Advanced-Concepts

22	Surface Mining Technology	12 Weeks	3	https://online.vtu.ac.in/course-details/Surface-Mining-Technology
23	X-Ray Crystallography & Diffraction	12 Weeks	3	https://online.vtu.ac.in/course-details/X-Ray-Crystallography-Diffraction
24	Automatic Control	8 Weeks	2	https://online.vtu.ac.in/course-details/automatic-control
25	Electronic Packaging and Manufacturing	8 Weeks	2	https://online.vtu.ac.in/course-details/electronic-packaging-and-manufacturing-482020
26	Electronic Properties Of The Materials: Computational Approach	8 Weeks	2	https://online.vtu.ac.in/course-details/Electronic-Properties-Of-The-Materials-Computational-Approach
27	Heat Transfer and Combustion in Multiphase Systems	8 Weeks	2	https://online.vtu.ac.in/course-details/heat-transfer-and-combustion-in-multiphase-systems
28	Introduction To Mechanical Vibration	8 Weeks	2	https://online.vtu.ac.in/course-details/Introduction-To-Mechanical-Vibration
29	Laser Based Manufacturing	8 Weeks	2	https://online.vtu.ac.in/course-details/Laser-Based-Manufacturing
30	Manufacturing Guidelines For Product Design	8 Weeks	2	https://online.vtu.ac.in/course-details/Manufacturing-Guidelines-For-Product-Design-872170
31	Mechanical Measurement Systems	8 Weeks	2	https://online.vtu.ac.in/course-details/mechanical-measurement-systems
32	Mechanics And Control Of Robotic Manipulators	8 Weeks	2	https://online.vtu.ac.in/course-details/Mechanics-And-Control-Of-Robotic-Manipulators
33	Mechanism And Robot Kinematics	8 Weeks	2	https://online.vtu.ac.in/course-details/Mechanism-And-Robot-Kinematics
34	Power Plant Engineering	8 Weeks	2	https://online.vtu.ac.in/course-details/Power-Plant-Engineering

35	Processing of Polymers and Polymer Composites	8 Weeks	2	https://online.vtu.ac.in/course-details/Processing-of-Polymers-and-Polymer-Composites
36	Product Engineering and Design Thinking	8 Weeks	2	https://online.vtu.ac.in/course-details/Product-Engineering-and-Design-Thinking
37	Robotics	8 Weeks	2	https://online.vtu.ac.in/course-details/Robotics
38	Theory Of Composite Shells	8 Weeks	2	https://online.vtu.ac.in/course-details/Theory-of-Composite-Shells-230535
39	Welding Application Technology	8 Weeks	2	https://online.vtu.ac.in/course-details/Welding-Application-Technology
40	Inspection And Quality Control In Manufacturing	4 Weeks	1	https://online.vtu.ac.in/course-details/inspection-and-quality-control-in-manufacturing
41	Manufacturing Automation	4 Weeks	1	https://online.vtu.ac.in/course-details/manufacturing-automation
42	Product Design And Development	4 Weeks	1	https://online.vtu.ac.in/course-details/Product-Design-And-Development
43	Selection Of Nanomaterials For Energy Harvesting And Storage Application	4 Weeks	1	https://online.vtu.ac.in/course-details/Selection-Of-Nanomaterials-For-Energy-Harvesting-And-Storage-Application
44	Smart Materials and Intelligent System Design	4 Weeks	1	https://online.vtu.ac.in/course-details/Smart-Materials-and-Intelligent-System-Design-608823
45	Structural Analysis Of Nanomaterials	4 Weeks	1	https://online.vtu.ac.in/course-details/structural-analysis-of-nanomaterials

CHEMICAL ENGINEERING

Eligible Branches to take the Courses for PEC

Chemical Engineering

Sl. No	Course Name	Weeks	Credits	Course Link
1	Chemical Process Intensification	12 Weeks	3	https://online.vtu.ac.in/course-details/Chemical-Process-Intensification
2	Aspen Plus® Simulation Software - A Basic Course For Beginners	12 Weeks	3	https://online.vtu.ac.in/course-details/Aspen-Plus%C2%AE-Simulation-Software-A-Basic-Course-For-Beginners
3	Chemical Process Safety	12 Weeks	3	https://online.vtu.ac.in/course-details/chemical-process-safety
4	Hydrogen Energy: Production, Storage, Transportation And Safety	12 Weeks	3	https://online.vtu.ac.in/course-details/hydrogen-energy-production-storage-transportation-and-safety
5	Colloids And Surfaces	8 Weeks	2	https://online.vtu.ac.in/course-details/Colloids-And-Surfaces
6	Natural Gas Engineering	8 Weeks	2	https://online.vtu.ac.in/course-details/Natural-Gas-Engineering
7	Trace And Ultra-Trace Analysis Of Metals Using Atomic Absorption Spectrometry	8 Weeks	2	https://online.vtu.ac.in/course-details/trace-and-ultra-trace-analysis-of-metals-using-ato mic-absorption-spectrometry
8	Technologies For Clean And Renewable Energy Production	8 Weeks	2	https://online.vtu.ac.in/course-details/Technologies-For-Clean-And-Renewable-Energy-Production
9	Mechanical Operations	4 Weeks	1	https://online.vtu.ac.in/course-details/Mechanical-Operations
10	Equipment Design: Mechanical Aspects	4 Weeks	1	https://online.vtu.ac.in/course-details/equipment-design-mechanical-aspects

MANAGEMENT

Eligible Branches to take the Courses for PEC

Management

Sl. No	Course Name	Weeks	Credits	Course Link
1	Strategy And Technology: A Practical Primer	12 Weeks	3	https://online.vtu.ac.in/course-details/Strategy-And-Technology-A-Practical-Primer
2	Strategic Management For Competitive Advantage	12 Weeks	3	https://online.vtu.ac.in/course-details/Strategic-Management-For-Competitive-Advantage
3	Industrial Safety Engineering	12 Weeks	3	https://online.vtu.ac.in/course-details/Industrial-Safety-Engineering
4	Entrepreneurship	12 Weeks	3	https://online.vtu.ac.in/course-details/Entrepreneurship
5	Automation In Production Systems And Management	12 Weeks	3	https://online.vtu.ac.in/course-details/Automation-in-Production-Systems-and-Management
6	Toyota Production System	8 Weeks	2	https://online.vtu.ac.in/course-details/Toyota-Production-System
7	Yoga And Positive Psychology For Managing Career And Life	8 Weeks	2	https://online.vtu.ac.in/course-details/Yoga-And-Positive-Psychology-For-Managing-Career-And-Life
8	Marketing Management - I	8 Weeks	2	https://online.vtu.ac.in/course-details/Marketing-Management-I
9	Game Theory	8 Weeks	2	https://online.vtu.ac.in/course-details/Game-Theory
10	Managing change in organizations	8 Weeks	2	https://online.vtu.ac.in/course-details/managing-change-in-organizations-448977

11	Simulation of Business Systems: An Applied Approach	8 Weeks	2	https://online.vtu.ac.in/course-details/simulation-of-business-systems-an-applied-approach
12	Systems Engineering: Theory & Practice	8 Weeks	2	https://online.vtu.ac.in/course-details/systems-engineering-theory-practice-277240
13	Business Forecasting	8 Weeks	2	https://online.vtu.ac.in/course-details/business-forecasting
14	Design Thinking - A Primer	4 Weeks	1	https://online.vtu.ac.in/course-details/Design-Thinking-A-Primer

TEXTILE TECHNOLOGY

Eligible Branches to take the Courses for PEC

Textile Engineering

Sl. No	Course Name	Weeks	Credits	Course Link
1	Textile Finishing	12 Weeks	**3**	https://online.vtu.ac.in/course-details/textile-finishing
2	Science And Technology Of Weft And Warp Knitting	12 Weeks	**3**	https://online.vtu.ac.in/course-details/science-and-technology-of-weft-and-warp-knitting
3	Textured Yarn Technology	12 Weeks	**3**	https://online.vtu.ac.in/course-details/Textured-Yarn-Technology
4	Testing of Functional and Technical Textiles	8 Weeks	**2**	https://online.vtu.ac.in/course-details/advanced-textile-printing-technology-933620
5	Advanced Textile Printing Technology	8 Weeks	**2**	https://online.vtu.ac.in/course-details/advanced-textile-printing-technology-933620