



ವಿಶ್ವೇಶ್ವರಯ್ಯ ತಾಂತ್ರಿಕ ವಿಶ್ವವಿದ್ಯಾಲಯ

("ವಿ ಜ ಯು ಅಧಿನಿಯಮ 1994"ರ ಅಡಿಯಲ್ಲಿ ಕರ್ನಾಟಕ ಸರ್ಕಾರದಿಂದ ಸ್ಥಾಪಿತವಾದ ರಾಜ್ಯ ವಿಶ್ವವಿದ್ಯಾಲಯ)

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

(State University of Government of Karnataka Established as per the VTU Act, 1994)

Phone : 0831-2498100 / 2405468

Fax : 0831-2405467

Email : registrar@vtu.ac.in

Web : https://vtu.ac.in

Prof. B. E. Rangaswamy, Ph.D

REGISTRAR

Phone: (0831) 2498100

Fax: (0831) 2405467

REF: VTU/BGM/BoS/AEC-SEE/710/2024-25/ 6096

DATE: 24 FEB 2025

CIRCULAR

Subject: Details of the Semester End Examination (SEE) for the AEC in the 6th semester of Engineering programs.

Reference: 5760- Feedback request VTU/BGM/BoS/AEC-SEE/698/2024-25/5760, Dated: 11.02.2025

Ability Enhancement Courses (AEC) are designed to improve students' skills and knowledge across various areas and are mandatory for all disciplines. These courses can be either theory-based or practical. For theory courses, the Semester End Examination (SEE) will typically consist of Multiple Choice Questions (MCQs). For practical courses, the SEE will be conducted by two examiners.

A draft copy of the SEE details for the 6th-semester AEC courses was circulated to all colleges and Chairpersons of the Board of Studies for feedback and suggestions. Based on the feedback received and the opinions of the chairpersons, error corrections have been incorporated. The updated SEE details are provided in the attached sheets.

This circular serves as the final version of the SEE details for the 6th-semester AEC courses in engineering programs. No further changes will be made to the SEE details.

All principals of engineering colleges under the university's jurisdiction, as well as chairpersons and program coordinators of university departments, are requested to ensure that the contents of this circular are communicated to all concerned faculty members and that students are advised accordingly.

R 24/02/25 BE
Registrar
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To,

The principals, of all Engineering Colleges under the ambit of the university, Belagavi

The Chairpersons /Program Coordinators of the university Departments at Kalburgi, Mysuru, Bengaluru, and Belagavi

Copy to

1. The Registrar (Evaluation) VTU Belagavi for information and needful
2. The Chairpersons and members of Board of Studies of VTU Belagavi for information
3. The Director, ITI SMU VTU Belagavi, for information and to make arrangements to upload the circular on the VTU web portal for stakeholders' reference.
4. The Special Officer, QPDS section for information and needful
5. Office Copy.

SEE Details of Ability Enhancement Courses(AEC) of 6th semester UG programs

Course Code	Course Title	SEE Type	SEE Durations	Correction Required/ Suggestions	To be read as
B.E. in Civil Engineering					
BCV657A	Building Information Modelling - Advanced	Practical	2 Hours	BCVL657A	BCVL657A
BCV657B	Structural Health Monitoring Using Sensors	MCQ	1 Hour	In Syll MCQ or Theory	MCQ
BCV657C	Data Analytics for Civil Engineers	MCQ	1 Hour	In Syll MCQ or Theory	MCQ
BCV657D	Quality Control and Quality Assurance	MCQ	1 Hour	BCV657B in Syllabus MCQ/Th	BCV657D MCQ
B.E. in Mining Engineering					
BMN657A	Introduction to IOT	Practical	2 Hours		
BMN657B	Gender Sensitisation	MCQ	1 Hour	In Syll MCQ or Theory	MCQ
BMN657C	Industry 4.0	MCQ	1 Hour	In Syll MCQ or Theory	MCQ
BMN657D	Data analytics with Excel	Practical	2 Hours		
B.E. in Computer Science and Engineering					
BISL657A	Tosca – Automated Software testing	Practical	2 Hours	In Syll BIS657A	BISL657A
BCSL657B	React	Practical	2 Hours		
BAIL657C	Generative AI	Practical	2 Hours		
BCSL657D	Devops	Practical	2 Hours		
BIS657E	Software Testing Automation	Practical	2 Hours		BISL657E
B.E. in Computer Engineering					
BISL657A	Tosca – Automated Software testing	Practical	2 Hours	In Syll BIS657A	BISL657A
BCSL657B	React	Practical	2 Hours		
BAIL657C	Generative AI	Practical	2 Hours		
BCSL657D	Devops	Practical	2 Hours		
BIS657E	Software Testing Automation	Practical	2 Hours		BISL657E
B.E. in Artificial Intelligence & Data Science					
BCGL657A	Mobile Application Development with Flutter	Practical	2 Hours		
BADL657B	UI/UX	Practical	2 Hours		
BAIL657C	Generative AI	Practical	2 Hours		
BCSL657D	Devops	Practical	2 Hours		
B.E. in Artificial Intelligence & Machine Learning					
BCGL657A	Mobile Application Development with Flutter	Practical	2 Hours		
BADL657B	UI/UX	Practical	2 Hours		
BAIL657C	Generative AI	Practical	2 Hours		
BCSL657D	Devops	Practical	2 Hours		
B.E. in Biotechnology					
BBT657A	Bio-Innovation and Start-ups	MCQ	1 Hour	In Syll MCQ or Theory	MCQ
BBTL657B	Bioinstrumentation and Servicing Lab	Practical	2 Hours		
BBTL657C	Modelling and Simulations in Biology Lab	Practical	2 Hours		
BBT657D	Good Manufacturing and Laboratory Practices	MCQ	1 Hour	In Syll MCQ or Theory	MCQ
B.E. in Computer and Communication Engineering					
BISL657A	Tosca – Automated Software testing	Practical	2 Hours	BIS657A in Syllabus	BISL657A
BCSL657B	React	Practical	2 Hours		



BAIL657C	Generative AI	Practical	2 Hours		
BCSL657D	Devops	Practical	2 Hours		
BIS657E	Software Testing Automation	Practical	2 Hours		BISL657E
B.E. in Computer Science and Business System					
BCGL657A	Mobile Application Development with Flutter	Practical	2 Hours		
BCSL657B	React	Practical	2 Hours		
BAIL657C	Generative AI	Practical	2 Hours		
BCSL657D	Devops	Practical	2 Hours		
B.E. in Computer Science and Design					
BCGL657A	Mobile Application Development with Flutter	Practical	2 Hours		
BCSL657B	React	Practical	2 Hours		
BAIL657C	Generative AI	Practical	2 Hours		
BCSL657D	Devops	Practical	2 Hours		
B.E. in the Computer Science and Engineering(IoT)					
BISL657A	Tosca – Automated Software testing	Practical	2 Hours	BIS657A in Syllabus	BISL657A
BCSL657B	React	Practical	2 Hours		
BAIL657C	Generative AI	Practical	2 Hours		
BCSL657D	Devops	Practical	2 Hours		
B.E. in Computer Science & Engineering(Artificial Intelligence & Machine Learning)					
BCGL657A	Mobile Application Development with Flutter	Practical	2 Hours		
BADL657B	UI/UX	Practical	2 Hours		
BAIL657C	Generative AI	Practical	2 Hours		
BCSL657D	Devops	Practical	2 Hours		
B.E. in CSE (Artificial Intelligence)					
BCGL657A	Mobile Application Development with Flutter	Practical	2 Hours		
BADL657B	UI/UX	Practical	2 Hours		
BAIL657C	Generative AI	Practical	2 Hours		
BCSL657D	Devops	Practical	2 Hours		
B.E. in CSE (Cyber Security)					
BCYL657A	Industrial Cyber Security	Practical	2 Hours		
BCSL657B	React	Practical	2 Hours		
BAIL657C	Generative AI	Practical	2 Hours		
BCSL657D	Devops	Practical	2 Hours		
B.E. in CSE (Data Science)					
BCGL657A	Mobile Application Development with Flutter	Practical	2 Hours		
BADL657B	UI/UX	Practical	2 Hours		
BAIL657C	Generative AI	Practical	2 Hours		
BCSL657D	Devops	Practical	2 Hours		
B.E. in the Computer Science and Engineering(IoT & Cyber Security including					
BCYL657A	Industrial Cyber Security	Practical	2 Hours		
BCSL657B	React	Practical	2 Hours		
BAIL657C	Generative AI	Practical	2 Hours		
BCSL657D	Devops	Practical	2 Hours		
B.E. in Data Science					



BCGL657A	Mobile Application Development with Flutter	Practical	2 Hours		
BADL657B	UI/UX	Practical	2 Hours		
BAIL657C	Generative AI	Practical	2 Hours		
BCSL657D	Devops	Practical	2 Hours		
B.E. in Information Science and Engineering					
BISL657A	Tosca – Automated Software testing	Practical	2 Hours	In Syllabus BIS657A	BISL657A
BCSL657B	React	Practical	2 Hours		
BAIL657C	Generative AI	Practical	2 Hours		
BCSL657D	Devops	Practical	2 Hours		
BIS657E	Software Testing Automation	Practical	2 Hours		BISL657E
B.E. in Computer Science					
BISL657A	Tosca – Automated Software testing	Practical	2 Hours	BIS657A in Syllabus	BISL657A
BCSL657B	React	Practical	2 Hours		
BAIL657C	Generative AI	Practical	2 Hours		
BCSL657D	Devops	Practical	2 Hours		
BIS657E	Software Testing Automation	Practical	2 Hours		BISL657E
B.E. in Electronics and Communication Engineering					
BEC657A	FPGA System Design using Verilog LAB	Practical	2 Hours	In Syllabus BECL657A	FPGA Based System design Lab Using Verilog (BECL657A)
BEC657B	System Modelling using Simulink	Practical	2 Hours		BECL657B
BEC657C	IOT Lab	Practical	2 Hours		BECL657C
BEC657D	Python Programming for Machine Learning Applications	Practical	2 Hours		BECL657D
B.E in Bio Medical Engineering					
BBM657A	Medical Device Development	MCQ	1 Hour		
BBM657B	Sensor and medical Iot	MCQ	1 Hour	In Syllabus Wearable Sensors and Medical IoT	Wearable Sensors and Medical IoT
BBM657C	Optical Instrumentation	MCQ	1 Hour		
BBM657D	Brain Computer Interface	MCQ	1 Hour		
B.E. in Electrical & Electronics Engineering					
BEE657A	Energy Management in Electric Vehicle	MCQ	1 Hour		
BEEL657B	Simulation of Control of Power Electronics Circuits	Practical	2 Hours		
BEEL657C	Energy Audit Project	Practical	2 Hours	In Syllabus BxxLxxx	BEEL657C
BEEL657D	Project on Renewable Energy Sources	Practical	2 Hours		
B.E in Electronics and Instrumentation Engineering					
BEI657A	Integrated Systems Lab	Practical	2 Hours		
BEI657B	Java Programming	MCQ	1 Hour	In syllabus 03 hrs (Theory)	01 Hour (MCQ)
BEI657C	Network Security	MCQ	1 Hour	In syllabus 03 hrs (Theory)	01 Hour (MCQ)
BEI657D	Machine Learning using Python	MCQ	1 Hour	In syllabus 03 hrs (Theory)	01 Hour (MCQ)
B.E. in Electronics and Telecommunication Engineering					
BEC657A	FPGA System Design using Verilog LAB	Practical	2 Hours	In syll BECL657A	Using Verilog (BECL657A)
BEC657B	System Modelling using Simulink	Practical	2 Hours	BECL657B	BECL657B
BEC657C	IOT Lab	Practical	2 Hours	BECL657C	BECL657C
BEC657D	Python Programming for Machine Learning applications	Practical	2 Hours	BECL657D	BECL657D
B.E. in Electronics Engineering (VLSI Design and Technology)					



BVL657A	Static Timing Analysis Lab	Practical	2 Hours	BVLL657A	BVLL657A
BEC657B	System Modelling using Simulink	Practical	2 Hours	BECL657B	BECL657B
BEC657C	IOT Lab	Practical	2 Hours	BECL657C	BECL657C
BEC657D	Python Programming for Machine Learning Applications	Practical	2 Hours	BECL657D	BECL657D
B.Tech.in Electronics and Computer Engineering					
BUE657A	Latex Software	Practical	2 Hours		BUEL657A
BUE657B	Aptitude – Verbal, Numerical and Logical Reasoning	MCQ	1 Hour		
BUEL657C	Advanced Python Programming	Practical	2 Hours		
BUEL657D	Web Programming	Practical	2 Hours		
B.E. in Aeronautical Engineering					
BAE657A/ BAS657A	Probability and statistics for Aerospace Engineering	MCQ	1 Hour	In Syllabus MCQ or Theory	MCQ
BAE657B/ BAS657B	Virtual Aircraft Simulation	MCQ	1 Hour	In Syllabus MCQ or Theory	MCQ
BAE657C	Introduction to Swarm Drone	MCQ	1 Hour	In Syllabus MCQ or Theory	MCQ
BAE657D	Multi-disciplinary Research in Aeronautical Engineering	MCQ	1 Hour	In Syllabus MCQ or Theory	MCQ
B.E. in Aerospace Engineering					
BAS657A/ BAE657A	Probability and statistics for Aerospace Engineering	MCQ	1 Hour	In Syllabus MCQ or Theory	MCQ
BAS657B/ BAE657B	Virtual Aircraft simulation	MCQ	1 Hour	In Syllabus MCQ or Theory	MCQ
BAS657C	Introduction to Data Analytics	MCQ	1 Hour	In Syllabus MCQ or Theory	MCQ
BAS657D	Air and Missile Defence Systems	MCQ	1 Hour	In Syllabus MCQ or Theory	MCQ
B.E. in AGRICULTURAL ENGINEERING					
BAG657A	Digital Society [0-2-0]	MCQ	1 Hour		
BAG657B	Fundamental of Virtual Reality ARP Development	MCQ	1 Hour	In Syllabus MCQ or Theory	MCQ
BAG657C	Spread sheets for Engineers	Practical	2 Hours	03 hours in Syllabus	02 Hours
BAG657D	Introduction Augmented Reality	MCQ	1 Hour		
B.E. in Automobile Engineering					
BAU657A	Automotive Heating, Ventilation and Air conditioning	MCQ	1 Hour		
BAU657B	Digital Twin	MCQ	1 Hour		
BAU657C	Programming for Automobile engineers (LAB)	Practical	3 Hours	In Syllabus BAU657C	BAUL657C
BAU657D	Battery management system	MCQ	1 Hour		
B.E. in Chemical Engineering					
BCH657A	Technical Report writing and Presentation skills	Theory paper	1 Hour	General Theory (Exam 2 Hours)(Ch. BoS) in Syllabus MCQ or Theory	Theory 02 Hours
BCH657B	Introduction to start-ups	MCQ	1 Hour	In Syllabus MCQ or Theory	MCQ
BCH657C	Problem Based learning	MCQ	1 Hour		
BCH657D	Project Management	MCQ	1 Hour		
B.E. in Industrial and Production Engineering					
BIP657A	Elements of Developing Management Skills	MCQ	1 Hour	In Syllabus MCQ or Theory	MCQ
BIP657B	Basics of Rapid Prototyping	MCQ	1 Hour	In Syllabus MCQ or Theory	MCQ
BIP657C	Introduction to Maintenance Engineering	MCQ	1 Hour	In Syllabus MCQ or Theory	MCQ
BIPL657D	Basics of IIOT (Laboratory)	Practical	2 Hours	In syllabus 01 Hour	02 Hours
B.E. in Marine Engineering					
BMR657A	Economics for Engineers (1-0-0-0)	MCQ	1 Hour		
BMR657B	Sensors and actuators (1-0-0-0)	MCQ	1 Hour		



BMR657C	Digital Marketing (1-0-0-0)	MCQ	1 Hour		
B.E. in Mechanical and Smart Manufacturing					
BMM657A	Introduction to Cloud Computing	MCQ	01 Hours	In Syllabus SEE Th 03 Hours	MCQ (01 Hour)
BMM657B	Cyber Security	MCQ	01 Hours	In Syllabus SEE Th 03 Hours	MCQ (01 Hours)
B.E. in Mechanical Engineering					
BME657A	Basics of Matlab [0-0-2]	Practical	2 Hours	In syll 03 Hours	02 Hours
BME657B	Fundamental of Virtual Reality ARP Development	MCQ	1 Hour	In Syll MCQ or Theory	MCQ
BME657C	Simulation and Analysis using Ansys workbench [0-0-2]	Practical	2 Hours	In Syll 03 Hours	02 Hours
BME657D	Introduction Augmented Reality	MCQ	1 Hour		
B.E. in Mechatronics Engineering					
BMT657A	MATLAB for Mechatronics (0-0-2)	Practical	2 Hours	In Syllabus 03 Hours	02 Hours BMTL657A
BMT657B	Embedded systems (0-0-2)	Practical	2 Hours	In Syllabus 03 Hours	02 Hours BMTL657B
BMT657C	Finite Element Modelling and Analysis (0-0-2)	Practical	2 Hours	In Syllabus 03 Hours	02 Hours BMTL657C
BMT657D	AI and ML (0-0-2)	Practical	2 Hours	In Syllabus 03 Hours	02 Hours BMTL657D
B.E. in Robotics & Automation or Automation & Robotics					
BRA657A	Design of Robotic Components	MCQ	1 Hour		
BRA657B	Business Analytics	MCQ	1 Hour		
BRA657C	Operations Management	MCQ	1 Hour		
BRA657D	Total Quality Management	MCQ	1 Hour		
B.E. in Robotics & Artificial Intelligence					
BRI657A	Application of Raspberry Pi Controllers	Practical	2 Hours	03 hour in Syllabus	02 hours (BRIL657A)
BRI657B	R Programming	Practical	2 Hours	03 hour in Syllabus	3 hours (BRIL657B)
BRI657C	FEA Lab	Practical	2 Hours	03 hour in Syllabus	4 hours (BRIL657C)
BRI657D	Ethics and Public Policy for AI	MCQ	1 Hour		
B. Tech. in Silk Technology					
BTX657A	Pattern Engineering Draping of Garments	Theory	2 Hours	SEE-THEORY (GENERAL QUESTION PAPER TYPE)	
BTXL657B	Fashion Accessories- lab	Practical	2 Hours	In Syll 03 Hours	02 Hours
BTXL657C	Computer Aided Textile Designing- lab	Practical	2 Hours	In Syll 03 Hours	02 Hours
BTXL657D	Textile Recycling and Fashion Up cycling- lab	Practical	2 Hours	In Syll 03 Hours	02 Hours
B. Tech. in Textile Technology					
BTX657A	Pattern Engineering and Draping of Garments	Theory	2 Hours	SEE-THEORY (GENERAL QUESTION PAPER TYPE)	
BTXL657B	Fashion Accessories- lab	Practical	2 Hours	In Syll 03 Hours	02 Hours
BTXL657C	Computer Aided Textile & Garment Designing -lab	Practical	2 Hours	Computer Aided Textile Designing in Syllabus 03 Hour	Computer Aided Textile & Garment Designing -lab 02 Hours
BTXL657D	Textile Recycling and Fashion Up Cycling -lab	Practical	2 Hours	In Syll 03 Hours	02 Hours
B.E. in SMART AGRITECH					
BSA657A	Digital Marketing	MCQ	1 Hour	In Syll MCQ or Theory	MCQ
BSA657B	Agri-Innovations and Start-Ups	MCQ	1 Hour	In Syll MCQ or Theory	MCQ
BSA657C	Fundamentals of Virtual Reality ARP Development	MCQ	1 Hour	In Syll MCQ or Theory	MCQ
BSA657D	Introduction Augmented Reality	MCQ	1 Hour	In Syll MCQ or Theory	MCQ

