



ವಿಶ್ವೇಶ್ವರಯ್ಯ ತಾಂತ್ರಿಕ ವಿಶ್ವವಿದ್ಯಾಲಯ

ವಿಜಯನಗರನಿಯಮ ೧೯೯೪ರ 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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REF: VTU/BGM/BOS/AEC-SEE details/2023-24/ 5098

DATE: 26 DEC 2023

Revised-CIRCULAR

Subject: SEE details of the courses of AEC of 5th semester 2021 scheme regarding...
Reference: Approved by the Chairpersons BoS VTU Belagavi.
VTU/BGM/AEC-SEE Details/2023-24/4986, Dated: 19.12.2023

The 2021 scheme contains one credit course under the Ability enhancement/Skill enhancement category, out of which employ the semester-end evaluation (SEE) pattern, either MCQ / Practical /Theory. This circular includes a list of AEC courses of the 5th semester 2021 scheme UG programs, as well as SEE information.

All the principals of affiliated and constituent engineering colleges are hereby informed to bring the content of the circular to the notice of all students and teachers concerned. If any clarification is needed email to sbhalbhavi@vtu.ac.in.

Thanking you

Re 26/12/23 BE
REGISTRAR

To,

1. All the Principals of all affiliated, constituent Engineering Colleges under the ambit of the university.
2. The Chairpersons /Program Coordinator of the University departments at Kalaburagi, Mysuru Belagavi, and Muddenhalli Bengaluru

CC to

- The Hon'ble Vice-Chancellor through the secretary to VC for information
- The Registrar (Evaluation) for information
- The Dean Faculty of Engineering, VTU Belagavi
- The Director ITI, SMU VTU Belagavi for information and request to upload the circular on VTU web portal.
- The Office copy

Ability Enhancement Course(AEC) -V semester 2021 Scheme

SL No	Course	Code	Course Title	Credit	SEE	Duration	REMARK
1	Aeronautical Engineering	21AE581	DRONE Pilot Training	1	MCQ	01 Hour	
2		21AE582	Introduction to Swarm Drone	1	MCQ	01 Hour	
3		21AE583	Virtual Aircraft Simulation	1	MCQ	01 Hour	
4		21AE584	Multi-disciplinary Research in Aeronautical Engineering	1	MCQ	01 Hour	
5	Aerospace Engineering	21AS581	Probability and Statistics for Aerospace Engineering	1	MCQ	01 Hour	
6		21AS582	Introduction to Data Analytics	1	MCQ	01 Hour	
7		21AS583	Virtual Aircraft Simulation	1	MCQ	01 Hour	
8		21AS584	Air and Missile Defence Systems	1	MCQ	01 Hour	
9	Automobile Engineering	21AU581	Automotive Heating, Ventilation and Air conditioning	1	MCQ	01 hour	
10		21AU582	Digital Twin	1	MCQ	01hour	
11		21AU583	Programming for Automobile engineers	1	MCQ	01hour	
12		21AU584	Battery management system	1	MCQ	01 hour	
13	Biotechnology	21BT581	Bio-Innovation and Start-ups	1	MCQ	01 hour	
14		21BT582	Extraction Methods and Herbal products	1	MCQ	01 hour	
15		21BT583	Modelling and Simulations in Biology	1	MCQ	01 hour	
16		21BT584	Good Manufacturing and Laboratory Practices	1	MCQ	01 hour	
17	Chemical Engineering	21CH581	Energy and Environmental Auditing	1	MCQ	01 hour	
18		21CH582	Problem Based Learning (Case Studies)	1	MCQ	01 hour	
19	Civil Engineering	21CV581	Data Analysis with Python	1	MCQ	01 hour	As per Ch BOS Practical
20		21CV582	Software Applications	1	MCQ	01 hour	As per Ch BOS Practical
21		21CV583	Gender Sensitization	1	MCQ	01 hour	
22		21CV584	Quality Control and Quality Assurance	1	MCQ	01 hour	
23	Mining Engineering	21CV585	Offshore Structures	1	MCQ	01 hour	
24		21MN581	Introduction to IOT	1	Practical	2 Hours	
25		21MN582	Gender Sensitisation	1	MCQ	01 hour	
26		21MN583	Industry 4.0	1	MCQ	01 hour	
27	Computer Science and Engineering	21CSL581	Angular JS	1	practical	2 Hours	
28		21CSL582	C# Programming	1	practical	2 Hours	21CSL582 (Syllabus)
29	Information Science and Engineering	21CSL581	Angular JS	1	practical	2 Hours	
30		21CSL582	C# Programming	1	practical	2 Hours	
31	AIML	21CSL581	Angular JS	1	practical	2 Hours	
32		21CSL582	C# Programming	1	practical	2 Hours	
33		21CSL581	Angular JS	1	practical	2 Hours	



34		21CSL582	C# Programming		1	practical	2 Hours		9
35	Data Science	21CSL581	Angular JS		1	practical	2 Hours		10
36		21CSL582	C# Programming		1	practical	2 Hours		11
37	CSE(Data Science)	21CSL581	Angular JS		1	practical	2 Hours		12
38		21CSL582	C# Programming		1	practical	2 Hours		13
39	AIDS	21CSL581	Angular JS		1	practical	2 Hours		14
40		21CSL582	C# Programming		1	practical	2 Hours		15
41	CSE(AI)	21CSL581	Angular JS		1	practical	2 Hours		16
42		21CSL582	C# Programming		1	practical	2 Hours		17
43		21CB581	SOFTWARE DESIGN AND DESIGN THINKING		1	MCQ	01 hour		18
44		21CB582	FINANCIAL MANAGEMENT		1	MCQ	01 hour		19
45	CBCS	21CBL583	Angular JS		1	practical	2 Hours		20
46		21CBL584	C# Programming		1	practical	2 Hours		21
47	CSE(IoT CS BCT)	21CSL581	Angular JS		1	practical	2 Hours		22
48		21CSL582	C# Programming		1	practical	2 Hours		23
49	CS & design	21CSL581	Angular JS		1	practical	2 Hours		24
50		21CSL582	C# Programming		1	practical	2 Hours		25
51	Electronics and	21EC581	IoT (Internet of Things) Lab		1	Practical	2 Hours		26
52	Communication	21EC582	Communication Simulink Toolbox		1	Practical	2 Hours		27
53	Engineering (ECE)	21EC583	Java Programming		1	Practical	2 Hours	23.12.2023	28
54		21EC584	Data Structures Using C++		1	practical	2 Hours	23.12.2023	29
55		21EC581	IoT (Internet of Things) Lab		1	Practical	2 Hours		30
56	Electronics and	21EC582	Communication Simulink Toolbox		1	Practical	2 Hours		31
57	Telecommunication	21EC583	Java Programming		1	Practical	2 Hours		32
58		21EC584	Data Structures Using C++		1	Practical	2 Hours		33
59	Electronics and	21EI581	Arduino and Raspberry Pi Lab		1	practical	2 Hours	21EI/BM582	34
60	Instrumentation	21EI582	Internet of Things		1	MCQ	01 hour		35
61	Engineering	21EI583	Octave / Scilab for Signal Analysis Lab			practical	2 Hours	21EI/BM583	
62		21EI584	OpenPLC / Ladder Diagram Programming Lab		1	practical	2 Hours		
63		21BM581	Arduino and Raspberry Pi Lab		1	Practical	2 Hours		
64	Biomedical	21BM582	Internet of Things		1	MCQ	01 hour		
65		21BM583	Octave / Scilab for Signal Analysis Lab		1	practical	2 Hours		
66		21BM584	Python Programming		1	MCQ	01 hour		
67		21EEL581	Scilab for Analysis of Power Systems		1	practical	2 Hours		



68	Electrical & Electronics Engineering	21EEL582	Scilab for Power Electronics	1	Practical	2 Hours		36
69		21EEP583	Energy Audit Project	1	Mini Project	02 Hours		
70		21EEP584	Renewable Energy Project	1	Mini Project	02 Hours		
71		21IP/IMS81	Elements of Developing Management Skills	1	MCQ	01 hour		
72		21IP/IMS82	Basics of Rapid Prototyping	1	MCQ	01 hour		
73		21IP/IMS83	Introduction to Maintenance Engineering	1	MCQ	01 hour		
74	Industrial Engineering	21IP/IMS81	Elements of Developing Management Skills	1	MCQ	01 hour		
75		21IP/IMS82	Basics of Rapid Prototyping	1	MCQ	01 hour		
76		21IP/IMS83	Introduction to Maintenance Engineering	1	MCQ	01 hour		
77		Mechanical Engineering	21ME581	Basics of MATLAB(0-0-2-0)	1	Practical	2 Hours	
78	21ME582		Digital Marketing (0-2-0-0)	1	MCQ	01 hour		
79	21ME583		VFX – Visual Effects (0-2-0-0)	1	MCQ	01 hour		
80	Marine Engineering	21MR581	Introduction to AI and ML (1-0-0-0)	1	MCQ	01 hour		
81		21MR582	Sensors and actuators (1-0-0-0)	1	MCQ	01 hour		
82		21MR583	Seamanship and navigation (1-0-0-0)	1	MCQ	01 hour		
83		21MT581	MATLAB for Mechatronics (0-0-2)	1	Practical	2 Hours		38
84	Mechatronics Engineering	21MT582	Embedded systems (0-0-2)	1	Practical	2 Hours		39
85		21MT583	Finite Element Modelling and Analysis (0-0-2)	1	Practical	2 Hours		40
86	Mechanical and Smart Manufacturing	21MT584	AI and ML (0-0-2)	1	Practical	2 Hours		41
87		21SM581	Introduction to Robotics and Automation	1	MCQ	01 hour		
88		21SM582	Special Manufacturing Processes	1	MCQ	01 hour		
89	Robotics & Automation	21RA581	Medical Robotics	1	MCQ	01 hour		
90		21RA582	Deep Learning for Computer Vision	1	Practical	2 Hours		42
91		21RA583	Mobile Robotics	1	MCQ	01 hour		
92	Agricultural Engineering	21AG581	Introduction to Augmented Reality and Web design	1	MCQ	01 hour		
93		21AG582	Digital marketing	1	MCQ	01 hour		
94		21AG583	Basics of MAT Lab	1	Practical	2 HOURS		44
95	Automation & Robotics	21AR581	Medical Robotics	1	MCQ	01 hour		
96		21AR582	Deep Learning for Computer Vision	1	Practical	2 Hours		45
97		21AR583	Mobile Robotics	1	MCQ	01 hour		



98	Robotics & Artificial Intelligence	21RI581	Medical Robots(1:0:0:0)	1	MCQ	01 hour	
99		21RI582	Basics of MATLAB(0:0:2:0)	1	practical	2 Hours	
100	Silk Technology	21TX583	Textured Yarn Technology	1	MCQ	01 hour	
101		21TX584	Fibre Reinforced Composites	1	MCQ	01 hour	
102	Textile Technology	21TX583	Textured Yarn Technology	1	MCQ	01 hour	
103		21TX584	Fibre Reinforced Composites	1	MCQ	01 hour	



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