

(Autonomous Institute affiliated to VTU)

Scheme of Teaching and Examination: Effective from AY 2021 – 22 Outcome Based Education (OBE) and Choice Based Credit System (CBCS)

UG PROGRAM: BE (PHYSICS GROUP) Semester: I

S1.	Course	Course		Teaching	_ Т	Teaching Hours/Week		its	Examination				
No.	category	Code	Course Title	Dept.	Hou			Credits	Duration	CIE Marks	SEE Marks	Total Marks	
					L	T	P			Marks	Marks	Marks	
1	BS	21MA11	Calculus and Differential Equations	Mathematics	2	1	1	3	3	50	50	100	
2	BS	21PY12	Engineering Physics	Physics	3	0	0	3	3	50	50	100	
3	ES	21EE13	Elements of Electrical Engineering	EEE	2	2	0	3	3	50	50	100	
4	ES	21ME14	Engineering Graphics	ME	2	0	2	3	3	50	50	100	
5	ES	21CV15	Elements of Civil Engineering	CV	2	2	0	3	3	50	50	100	
6	BS (LB)	21PYL16	Engineering Physics Laboratory	Physics	0	1	2	1	3	50	50	100	
7	ES (LB)	21EEL17	Electrical Engineering Laboratory	EEE	0	0	2	1	3	50	50	100	
8	HSS	21HS18	Technical English-I	HSS	0	1	1	1	2	50	50	100	
9	AEC	21AE19Y/ 21AE19S/ 21AE19N/ 21AE19M	Yoga/Sports/NCC/Music	HSS	0	1	1	1	-	100	-	100	
10	AEC	21AE110	Design Thinking & Innovation	All Engg. Depts	0	2	0	1	-	100	-	100	
	TOTAL					10	9	20		600	400	1000	
	TOTAL					30			-	600	400	1000	

Note: BS: Basic Science; ES: Engineering Science; HSS: Humanities and Social Sciences; AEC: Ability Enhancement Courses, LB: Laboratory Course

- 1 hour lecture (L) per week = 1 Credit; 2 hour tutorial (T) per week = 1 Credit
- 1 hour tutorial (T)/Practical (P) per week = 0.5 credit; 2 hour Practical/Laboratory/Drawing (P) per week = 1 Credit

	Component	Marks		Total Marks
	Internal – 1	Conducted for 50 M and Reduced to 25 M		
	Internal – 2	Conducted for 50 M and Reduced to 25 M	25	50
	Internal – 3	Conducted for 50 M and Reduced to 25 M		
CIE	Compensatory Test	Conducted for 50 M and Reduced to 25 M		
	AAT	Conducted for 50 M and Reduced to 25 M. <b>Note:</b> minimum 03 AATs/course shall be used by the course coordinators. The program assessment committee (PAC) and HoD will play the advisory role in deciding the AAT.	25	
SEE	Semester End Examination	Conducted for 100 M and Reduced to 50 M Comprises <b>Part</b> – <b>A</b> : 20 M of MCQ <b>Part</b> – <b>B</b> : 80 M, 05 Descriptive Questions of 16 marks each with an internal choice	-	50
		Total Marks: CIE and SEE		100

Note: There will be no SEE for the AEC course of Yoga, Sports, NCC, Music, Design Thinking & Innovation. It will be a Continuous Internal evaluation with 2 CIE's being conducted during the semester.

AICTE Activity points to be earned by students admitted to BE/B.Tech.,/B.Plan day college programme (For more details refer to Chapter6, AICTE activity point programme, Model Internship Guidelines):

Over and above the academic grades, every Day College regular student admitted to the 4 years Degree programme and every student entering 4 years Degree programme through lateral entry, shall earn 100 and 75 Activity Points respectively for the award of degree through AICTE Activity Point Programme. Students transferred from other Universities to the fifth semester are required to earn 50 Activity Points from the year of entry to VTU. The Activity Points earned shall be reflected on the student's either semester Grade Card.

The activities can be spread over the years, anytime during the semester weekends and holidays, as per the liking and convenience of the student from the year of entry to the programme. However, the minimum hours' requirement should be fulfilled. Activity Points (non-credit) do not affect SGPA/CGPA and shall not be considered for vertical progression.

In case students fail to earn the prescribed activity points, an Eight semester Grade Card shall be issued only after earning the required activity points. Students shall be admitted for the award of the degree only after the release of the Eight semester Grade Card.



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Scheme of Teaching and Examination: Effective from AY 2021 – 22 Outcome Based Education (OBE) and Choice Based Credit System (CBCS)

UG PROGRAM: BE (PHYSICS GROUP)

Semester: II

					Te	eachin	g	ts	Examination				
S1. No.	Course category	Course Code	Course Title	Teaching Dept.	Hou	Hours/Week		Credits	Duration	CIE	SEE	Total	
					L	T	P	0		Marks	Marks	Marks	
1	BS	21MA21	Advanced Calculus, Laplace Transforms and Linear Algebra	Mathematics	2	1	1	3	3	50	50	100	
2	BS	21PY22	Engineering Physics	Physics	3	0	0	3	3	50	50	100	
3	ES	21EE23	Elements of Electrical Engineering	EEE	2	2	0	3	3	50	50	100	
4	ES	21ME24	Engineering Graphics	ME	2	0	2	3	3	50	50	100	
5	ES	21CV25	Elements of Civil Engineering	CV	2	2	0	3	3	50	50	100	
6	BS (LB)	21PYL26	Engineering Physics Laboratory	Physics	0	1	2	1	3	50	50	100	
7	ES (LB)	21EEL27	Electrical Engineering Laboratory	EEE	0	0	2	1	3	50	50	100	
8	HSS	21HS28	Technical English-II	HSS	0	1	1	1	2	50	50	100	
9	AEC	21AE29Y/ 21AE29S/ 21AE29N/ 21AE29M	Yoga/Sports/NCC/Music	HSS	0	1	1	1	-	100	-	100	
10	AEC	21AE210	Design Thinking & Innovation	All Engg. Depts.	0	2	0	1	-	100	-	100	
	TOTAL					10	9	20	_	600	400	1000	
	IOIAL					30			_	000	100	1000	

Note: BS: Basic Science; ES: Engineering Science; HSS: Humanities and Social Sciences; AEC: Ability Enhancement Courses, LB: Laboratory Course

- 1 hour lecture (L) per week = 1 Credit; 2 hour tutorial (T) per week = 1 Credit
- 1 hour tutorial (T)/Practical (P) per week = 0.5 credit; 2 hour Practical/Laboratory/Drawing (P) per week = 1 Credit

	Component	Marks Average Marks		Total Marks
	Internal – 1	Conducted for 50 M and Reduced to 25 M		
	Internal – 2	Conducted for 50 M and Reduced to 25 M	25	50
	Internal – 3	Conducted for 50 M and Reduced to 25 M		
CIE	Compensatory Test	Conducted for 50 M and Reduced to 25 M		
	AAT	Conducted for 50 M and Reduced to 25 M. <b>Note:</b> minimum 03 AATs/course shall be used by the course coordinators. The program assessment committee (PAC) and HoD will play the advisory role in deciding the AAT.	25	
SEE	Semester End Examination	Conducted for 100 M and Reduced to 50 M Comprises <b>Part - A</b> : 20 M of MCQ <b>Part - B</b> : 80 M, 05 Descriptive Questions of 16 marks each with an internal choice	-	50
	1	Total Marks: CIE and SEE		100

Note: There will be no SEE for the AEC course of Yoga, Sports, NCC, Music, Design Thinking & Innovation. It will be a Continuous Internal evaluation with 2 CIE's being conducted during the semester.

AICTE Activity points to be earned by students admitted to BE/B.Tech.,/B.Plan day college programme (For more details refer to Chapter6, AICTE activity point programme, Model Internship Guidelines):

Over and above the academic grades, every Day College regular student admitted to the 4 years Degree programme and every student entering 4 years Degree programme through lateral entry, shall earn 100 and 75 Activity Points respectively for the award of degree through AICTE Activity Point Programme. Students transferred from other Universities to the fifth semester are required to earn 50 Activity Points from the year of entry to VTU. The Activity Points earned shall be reflected on the student's either semester Grade Card.

The activities can be spread over the years, anytime during the semester weekends and holidays, as per the liking and convenience of the student from the year of entry to the programme. However, the minimum hours' requirement should be fulfilled. Activity Points (non-credit) do not affect SGPA/CGPA and shall not be considered for vertical progression.

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UG P	G PROGRAM: BE (CHEMISTRY GROUP)								Semester: I					
					Teaching			ts	Examination					
S1. No.	Course category	Course Code	Course Title	Teaching Dept.		rs/We		Credits	Duration	CIE	SEE	Total Marks		
					L	T	P			Marks	Marks	Total Mains		
1	BS	21MA11	Calculus and Differential Equations	Mathematics	2	1	1	3	3	50	50	100		
2	BS	21CH12	Engineering Chemistry	Chemistry	3	0	0	3	3	50	50	100		
3	ES	21CS13	C Programming for Engineers	CSE/ISE/AIML	2	0	4	4	3	50	50	100		
4	ES	21EC14	Basic Electronics Engineering	ECE/ETE	2	2	0	3	3	50	50	100		
5	ES	21ME15	Elements of Mechanical Engineering	ME	2	2	0	3	3	50	50	100		
6	BS (LB)	21CHL16	Engineering Chemistry Laboratory	Chemistry	0	1	2	1	3	50	50	100		
7	AEC	21AE17	Indian Knowledge System	HSS	0	2	0	1	2	50	50	100		
8	HSS	21HS18	Technical English-I	HSS	0	1	1	1	2	50	50	100		
9	AEC	21AE19Y/ 21AE19S/ 21AE19N/ 21AE19M	Yoga/Sports/NCC/Music	HSS	0	1	1	1	-	100	-	100		
TOTAL					11	10	9	20		500	400			

Note: BS: Basic Science; ES: Engineering Science; HSS: Humanities and Social Sciences; AEC: Ability Enhancement Courses, LB: Laboratory Course

- 1 hour lecture (L) per week = 1 Credit; 2 hour tutorial (T) per week = 1 Credit
- 1 hour tutorial (T)/Practical (P) per week = 0.5 credit; 2 hour Practical/Laboratory/Drawing (P) per week = 1 Credit

	Component	Marks	Average Marks	Total Marks
	Internal – 1	Conducted for 50 M and Reduced to 25 M		
	Internal – 2	Conducted for 50 M and Reduced to 25 M	25	50
	Internal – 3	Conducted for 50 M and Reduced to 25 M		
CIE	Compensatory Test	Conducted for 50 M and Reduced to 25 M		
	AAT	Conducted for 50 M and Reduced to 25 M. <b>Note:</b> minimum 03 AATs/course shall be used by the course coordinators. The program assessment committee (PAC) and HoD will play the advisory role in deciding the AAT.	25	
SEE	Semester End Examination	Conducted for 100 M and Reduced to 50 M Comprises <b>Part</b> – <b>A</b> : 20 M of MCQ <b>Part</b> – <b>B</b> : 80 M, 05 Descriptive Questions of 16 marks each with an internal choice	-	50
	•	Total Marks: CIE and SEE	100	

Note: There will be no SEE for the AEC course of Yoga, Sports, NCC, Music . It will be a Continuous Internal evaluation with 2 CIE's being conducted during the semester.

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UG PROGRAM: BE (CHEMISTRY GROUP)

Semester: II

					_	Teaching Hours/Week		w	Examination				
S1. No.	Course category	Course Code	Course Title	Teaching Dept.	Hou			Credits	Duration	CIE Marks	SEE Marks	Total Marks	
					L	T	P						
1	BS	21MA21	Advance Calculus, Laplace Transforms and Linear Algebra	Mathematics	2	1	1	3	3	50	50	100	
2	BS	21CH22	Engineering Chemistry	Chemistry	3	0	0	3	3	50	50	100	
3	ES	21CS23	C Programming for Engineers	CSE/ISE/AIML	2	0	4	4	3	50	50	100	
4	ES	21EC24	Basic Electronics Engineering	ECE/ETE	2	2	0	3	3	50	50	100	
5	ES	21ME25	Elements of Mechanical Engineering	ME	2	2	0	3	3	50	50	100	
6	BS (LB)	21CHL26	Engineering Chemistry Laboratory	Chemistry	0	1	2	1	3	50	50	100	
7	AEC	21AE27	Indian Knowledge System	HSS	0	2	0	1	2	50	50	100	
8	HSS	21HS28	Technical English-II	HSS	0	1	1	1	2	50	50	100	
9	AEC	21AE29Y/ 21AE29S/ 21AE29N/ 21AE29M	Yoga/Sports/NCC/Music	HSS	0	1	1	1	-	100	-	100	
			TOTAL		11	10	9	20		500	400	900	
	IOIAL					30			_	300	400	900	

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