

PDA College of Engineering, Kalaburagi B.E. in CERAMICS AND CEMENT TECHNOLOGY Scheme of Teaching and Examination 2022-2023 Outcome Based Education (OBE) and Choice Based Credit System (CBCS) Effective from the academic year 2021-2022													
III Semester													
Sl. No.	Course and course code		Course title	Teaching Dept.	Teaching hours per week				Examination			Credits	
					Theory / Lecture L	Tutorial T	Practical / Drawing P	Self study S	Duration in hours	CIE marks	SEE marks		Total marks
1	BSC	21XXX31	Basic science course							50	50	100	3
2	PCC	21CCT32	Introduction to Ceramic Engineering	CCT						50	50	100	3
3	PCC	21CC33	Introduction to Materials Science & Engineering	CCT						50	50	100	3
4	PCC	21CC34	Geology	CCT						50	50	100	3
5	PCC	21CCL35	Ceramic raw material testing lab	CCT						50	50	100	1
6	PCC	21CCL36	Computational lab	CCT						50	50	100	1
7	PCC	21CCL37	Geology lab	CCT						50	50	100	1
8	INT	21CC38	SUMMER INTERNSHIP-1							50	50	100	2
9	HMSC	21KSK39	Samskrutika Kannada	Humanities						50	50	100	1
		21KBK39	Balake Kannada	Humanities									
		OR											
		21CPC39	Constitution of India, Professional ethics and Cyber law										
10	AEC	21XXX39A	Ability Enhancement Courses							50	50	100	1
11	UHV	21XXX39B	Courses on Universal Human Values							50	50	100	1
Total										550	550	1100	20

BSC: Basic Science Course; **PCC:** Professional Core Course; **INT:** Internship; **AEC:** Ability Enhancement; **UHV:** Universal Human Values; **HMSC:** Humanites and Social Science Course

Note: At the end of the second-semester summer internship shall be carried out - based on inter/intra institutional activities credited in the third semester. Department may swap few courses between a FIRST and SECOND semester to balance the workload teaching and laboratory schedule

Summer Internship-I: All the students admitted shall have to undergo a mandatory summer internship of **3 weeks** during the vacation of II semester. Summer Internship shall include Inter / Intra Institutional activities. For Internship, A University Viva-voce examination shall be conducted during the III Semester and the prescribed credit shall be included in III semesters. The internship shall be considered as a head of passing and shall be considered for the award of degree. Those, who do not take up / complete the internship shall be declared fail and shall have to complete during subsequent Univ. examination after satisfying the internship requirements.

XX KBK39/49 **Balake Kannada** (Kannada for communication) is for non-Kannada speaking, reading and writing students and
XXKSK39/49 **Samskrutika Kannada** (Kannada for Administration) is for students who speak, read and write Kannada.

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IV Semester

Sl. No.	Course and course code		Course title	Teaching Dept.	Teaching hours per week				Examination			Credits	
					Theory / Lecture	Tutorial	Practical / Drawing	Self study	Duration in hours	CIE marks	SEE marks		Total marks
					L	T	P	S					
1	BSC	21MAT41	Unit Operations						50	50	100	3	
2	PCC	21CC42	Principles of ceramic processing	CCT					50	50	100	3	
3	PCC	21CC43	Whitewares and heavy clay wares	CCT					50	50	100	3	
4	PCC	21CC44	Fuels and Combustion	CCT					50	50	100	3	
5	PCC	21CCL45	Unit Operations Lab	CCT					50	50	100	1	
6	PCC	21CCL46	Ceramic processing lab	CCT					50	50	100	1	
7	PCC	21CCL47	Whitewares lab	CCT					50	50	100	1	
8	HMSC	21KSK49	Samskrutika Kannada	Humanities					50	50	100	1	
		21KBK49	Balake Kannada	Humanities									
		OR											
		21CPC49											
		21XXX49A	Ability Enhancement Courses (Life Sc)										
11	AEC	21XXX49B	Ability Enhancement Courses						50	50	100	1	
12	UHV	21XXX49C	Courses on Universal Human Values						50	50	100	1	
			Total						550	550	1100	20	

BSC: Basic Science Course; **PCC:** Professional Core Course; **INT:** Internship; **AEC:** Ability Enhancement; **UHV:** Universal Human Values; **HMSC:** Humanites and Social Science Course

Summer Internship-II: At the end of **fourth** Semester, **four-weeks** summer internship shall be carried out – Based on industrial / Govt. / NGO / MSME / Rural Internship / Innovation / Entrepreneurship, credited in fifth Semester. All the students admitted shall have to undergo mandatory internship of 04 weeks during the vacation of IV semester. A University Viva-Voce examination shall be conducted during V semester and the prescribed credit shall be included in V semester. Internship shall be considered as a head of passing and shall be considered for the award of degree. Those, who do not take up/complete the internship shall be declared fail and shall have to complete during subsequent University examination after satisfying the internship requirements

POOJYA DODDAPPA APPA COLLEGE OF ENGINEERING, KALABURAGI

B.E. in CERAMICS AND CEMENT TECHNOLOGY

Choice Based Credit System (CBCS)

Scheme of Teaching and Examination 2021 – 2022

(Effective for students admitted in 2019-2020)

V Semester

Sl. No.	Course and Course Code		Course Title	Teaching Department	Teaching Hours/Week				Examination			Credits	
					Theory Lecture	Tutorial	Practical/ Drawing	Self Study	Duration in hours	SEE Marks	CIE Marks		Total Marks
1	HU	19HU51	Management and Entrepreneurship	Humanities	3	-	--	--	--	50	50	100	3
2	PC	19CC52	Physical Ceramics	CCT	3	-	--	--	--	50	50	100	3
3	PC	19CC53	Glass Technology I	CCT	4		--	0.5	--	50	50	100	3.5+0.5
4	PC	19CC54	Cement Technology I	CCT	4		--	--	--	50	50	100	4
5	PC	19CC55	Refractories I	CCT	4	-	--	--	--	50	50	100	4
6	HU	19HU01	Soft Skill Training	Humanities	1		--	--	--	50	50	100	1
7	PC	19CCL51	Cement testing lab	CCT	--	--	2	--	--	50	50	100	1
8	PC	19CCL52	Refractory Lab	CCT	--	--	2	--	--	50	50	100	1
9	PC	19CCL53	Glass Lab	CCT	--	--	2	--	--	50	50	100	1
Total					19	--	6	0.5	--	450	450	900	22
<p>Note: Hu: Humanities, PC: Professional core, NCMC: Non-credit mandatory course.</p> <p>Note: Management and Entrepreneurship course shall be offered by CV, ME, IP, Auto and CCT Departments at V semester level and E&CE, CSE, IS, IT and E&E departments at VI semester level</p>													

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VI Semester

Sl. No.	Course and Course Code		Course Title	Teaching Department	Teaching Hours/Week					Examination			Credits
					Theory Lecture	Tutorial	Practical/ Drawing	Self Study	Duration in hours	SEE Marks	CIE Marks	Total Marks	
1	PC	19CC61	Glass Technology II	CCT	3	-	--	0.5	--	50	50	100	2.5+0.5
2	PC	19CC62	Refractory II	CCT	4	--	--	--	--	50	50	100	4
3	PC	19CC63	Cement Technology II	CCT	3	--	--	--	--	50	50	100	3
4	PE	19CC641	Instrumental Methods of Analysis	CCT	3	--	--	--	--	50	50	100	3
		19CC642	Process Calculations										
5	IE	19CC65	Industrial Elective		3	--	--	--	--	50	50	100	3
6	OE	19CC66	Non Destructive Testing	CCT	3	-	--	--	--	50	50	100	3
7	HU	19HU02	Aptitude	Humanities	--	2	--	--	--	50	50	100	1
8	PC	19CCL61	Instrumental data interpretation Lab	CCT	--	-	2	--	--	50	50	100	1
9	PC	19CCL62	Equipment Drawing - I	CCT	--	--	2	--	--	50	50	100	1
10	MP	19CCMP63	Mini-project	CCT				--	--	50	50	100	2
Total					19	2	4	0.5	--	500	500	1000	24

Note: PC: Professional core, PE: Professional Elective, OE: Open Elective, MP: Mini-project, INT: Internship

Internship: All the students admitted to III year of BE/B.Tech has to undergo mandatory internship of 4 weeks during the vacations of VI and VII semesters and /or VII and VIII semesters.

Note Management and Entrepreneurship course shall be offered by CV, ME, IP, Auto and CCT Departments at V semester level and E&CE, CSE, IS, IT and E&E departments at VI semester level

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VII Semester

Sl. No.	Course and Course Code		Course Title	Teaching Department	Teaching Hours/Week					Examination			Credits
					Theory Lecture	Tutorial	Practical/ Drawing	Self Study	Duration in hours	SEE Marks	CIE Marks	Total Marks	
1	PC	19CC71	Electrical & Magnetic ceramics	CCT	4	-	--	--	--	50	50	100	4
2	PC	19CC72	Composite materials	CCT	3		--	0.5	--	50	50	100	3.5+0.5
3	PE	19CC731	Non Destructive Testing	CCT	3	-	--	--	--	50	50	100	3
		19CC732	Bio materials										
4	PE	19CC741	Structure & properties of materials	CCT	3	--	--	--	--	50	50	100	3
		19CC742	Materials Technology										
		19CC743	Process Calculations										
5	OE	19CC75OE	Ceramic Technology	CCT	3	-	--		--	50	50	100	3
6	PC	19CCS76	Seminar/Case study/Group work	CCT	-	-			--	50	50	100	1
7	PROJ	19CCP77	Project Work Phase - 1	CCT	-	--	--		--	50	50	100	3
Total					16	--	2	0.5	--	400	400	800	21
<p>Note: PC: Professional core, PE: Professional Elective, OE: Open Elective, MP: Mini-project, INT: Internship.</p>													
<p>Internship: All the students admitted to III year of BE/B.Tech has to undergo mandatory internship of 4 weeks during the vacations of VI and VII semesters and /or VII and VIII semesters.</p>													

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VIII Semester

Sl. No.	Course and Course Code		Course Title	Teaching Department	Teaching Hours/Week			Examination				Credits	
					Theory Lecture	Tutorial	Practical/ Drawing	Duration in hours	SEE Marks	CIE Marks	Total Marks		
1	PC	19CC81	Structural ceramics	CCT	3	1	--	--	50	50	100	3+1	
2	PE	19CC821	Special Glasses & Glass Ceramics	CCT	3	-	--	--	50	50	100	3	
		19CC822	Nano Materials										
		19CC823	Smart Materials										
3	PE	19CCCM83	Certification Course (NPTEL/ MOOC)	--	--	--	--	--	--	--	--	1	
4	PROJ	19CCP84	Project Work Phase - II	CCT	--			--	50	50	100	12	
5	INT	19CCIN85	Internship	(Completed during the intervening vacations of VI and VII semesters and /or VII And VIII semesters.)				--	--	--	--	--	1
								--	--	--	--	--	
								--	--	--	--	--	
Total					9	-	--	--	200	200	400	21	
6	OE	19CC8OE	Desine with Ceramics	CCT	3	-	Credits not to consider for CCT				3		

Note: PC: Professional core, PE: Professional Elective, OE: Open Elective, MP: Mini-project, INT: Internship.

Internship: All the students admitted to III year of BE/B.Tech has to undergo mandatory internship of 4 weeks during the vacations of VI and VII semesters and /or VII and VIII semesters.