

VIVEKANANDCOLLEGE, KOLHAPUR (EMPOWERED AUTONOMOUS)

Department of B. Voc. Foundry Technology Course Structure under Three- Years UG Program Department/Subject Specific Core or Major (DSC)

1. **TITLE:** Three Years UG Degree in B.Voc. Foundry Technology
2. **YEAROF IMPLEMENTATION:** Academic year 2023-24 onwards
3. **EXAMINATIONPATTERN:** Semester wise for Theory and annually for Practicals
4. **STRUCTUREOFCOURSE:**

B.Voc. Foundry Technology-I Semester-I & II

Sr. No.	Course Abbr.	Course code	Course Name	Teaching Scheme Hours/week		Examination Scheme and Marks				Course Credits
				TH	PR	ESE	CIE	PR	Marks	
Semester-I										
1	DSC-I	DSC23FTE11	Moulding Technology	2	-	40	10	-	50	2
2	MIN-I	MIN23FTE11	Pattern Construction Technology	2	-	40	10	-	50	2
3	OEC-III	OEC23FTE11	2D CAD - I	-	4	-	-	50	50	4
4	VSC-I	VSC23FTE11	Engineering Graphics-I	-	4	50	-	-	50	4
5	AEC-I	AEC23FTE11	English for Business Communication-I	2	-	40	10	-	50	2
6	VEC-I	VEC23FTE11	Democracy, Election & Good Governance	2	-	50	-	-	50	2
7	IKS-I	IKS23FTE11	History of Engineering Materials (Online)	2	-	50	-	-	50	2
8	DSC-PR-I	DSC23PRA19	Sand Testing	-	4	-	-	50	50	4
9	DSC-PR-II	DSC23PRB19	Mould Preparation Techniques		4			50	50	4
10	MIN-PR-I	MIN23PRA19	Pattern Making Technique		4			50	50	4
	Total (Semester-I)			10	20	270	30	200	500	30
Semester-II										
1	DSC-II	DSC23FTE21	Melting Technology	2	-	40	10	-	50	2
2	MIN-II	MIN23FTE21	Casting Processes	2	-	40	10	-	50	2
3	OEC-II	OEC23FTE21	2D CAD – II	-	4	-	-	50	50	4
4	VSC-II	VSC23FTE21	Engineering Graphics-II	-	4	50	-	-	50	4
5	SEC-I	SEC23FTE21	Gating System and Risering	2	-	40	10	-	50	2
6	AEC-I	AEC23FTE21	English for Business Communication-II	2	-	40	10	-	50	2
7	CC-I	CC23FTE21	Disaster Management	2	-	50	-	-	50	2
8	DSC-PR-III	DSC23PRA29	Advance Sand Testing	-	4	-	-	50	50	4

9	DSC-PR-IV	DSC23PRB29	Charge Calculations In Melting		4			50	50	4
10	MIN-PR-II	MIN23PRA29	Methods in Casting Processes		4			50	50	4
Total (Semester-II)				10	20	260	40	200	500	30
Cumulative Total (1st Year)				20	40	530	70	400	1000	60

B.Voc. Foundry Technology-II Semester-III & IV

Sr. No.	Course Abbr.	Course code	Course Name	Teaching Scheme Hours/week		Examination Scheme and Marks				Course Credits
				TH	PR	ESE	CIE	PR	Marks	
Semester-III										
1	DSC-III	DSC23FTE31	Physical Metallurgy-I	2	-	40	10	-	50	2
2	DSC-IV	DSC23FTE32	Iron Casting Production	2	-	40	10	-	50	2
3	MIN-III	MIN23FTE31	Fuel Furnace and Refractories	2	-	40	10	-	50	2
4	OEC-III	OEC23FTE31	3D CAD-I	-	4	-	-	50	50	4
5	VSC-III	VSC23FTE31	Machine Drawing	-	4	50	-		50	4
6	AEC-III	AEC23FTE31	Financial Accounting	2	-	40	10	-	50	2
7	VEC-II	VEC23FTE31	Environmental Studies-I	2	-	50	-	-	50	2
8	DSC-PR-V	DSC23PRA39	Metallographic Analysis	-	4	-	-	50	50	4
9	DSC-PR-VI	DSC23PRB39	Sample Preparation	-	4	-	-	50	50	4
10	MIN-PR-III	MIN23PRA39	Furnace Selection Technique		4	-	-	50	50	4
	Total (Semester-III)			10	20	260	40	200	500	30
Semester-IV										
1	DSC-V	DSC23FTE41	Physical Metallurgy-II	2	-	40	10	-	50	2
2	DSC-VI	DSC23FTE42	Testing and Inspection Technique	2	-	40	10	-	50	2
3	MIN-IV	MIN23FTE41	Steel Casting Production	2	-	40	10	-	50	2
4	OEC-IV	OEC23FTE41	3D CAD-II	-	4	-	-	50	50	4
5	VSC-IV	VSC23FTE41	Non-Ferrous Casting Production	-	4	50	-	-	50	4
6	AEC-IV	AEC23FTE41	Professional Practices	2	-	40	10	-	50	2
7	VEC-III	VEC23FTE41	Environmental Studies-II	2	-	50	-	-	50	2
8	DSC-PR-VII	DSC23PRA49	Mechanical Testing I	-	4	-	-	50	50	4
9	DSC-PR-VIII	DSC23PRB49	Mechanical Testing II	-	4	-	-	50	50	4
10	MIN-PR-IV	MIN23PRA49	Heat Treatment Processes		4			50	50	4
	Total (Semester-IV)			10	20	260	40	200	500	30

	Cumulative Total (2nd Year)	20	40	520	80	400	1000	60
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B.Voc. Foundry Technology-III Semester-V & VI

Sr. No.	Course Abbr.	Course code	Course Name	Teaching Scheme Hours/week		Examination Scheme and Marks				Course Credits
				TH	PR	ESE	CIE	PR	Marks	
Semester-V										
1	DSC-VII	DSC23FTE51	Quality Control	2	-	40	10	-	50	2
2	DSE-I	DSC23FTE51	Secondary Steel Making	2	-	40	10	-	50	2
3	MIN-V	MIN23FTE51	Entrepreneurship Development	2	-	40	10	-	50	2
4	INT-I	INT23FTE51	Internship-I	-	-			100	100	4
6	FP-I	FP23FTE51	Project-I	-	8			100	100	8
7	DSC-PR-IX	DSC23PRA59	Quality Control Tools		4	-	-	50	50	4
8	DSE-PR-I	DSE23PRA59	Business Report	-	4	-	-	50	50	4
9	MIN-PR-V	MIN23FTE52	Defect Analysis-I	-	4	-	-	50	50	4
	Total (Semester-V)			6	20	120	30	350	500	30
Semester-VI										
1	DSC-VIII	DSC23FTE61	Fracture Mechanics and Analysis of Failure	2	-	40	10	-	50	2
2	DSE-II	DSE23FTE61	Welding and Salvaging Processes	2	-	40	10	-	50	2
3	MIN-VI	MIN23FTE61	Non-Destructive Testing	2	-	40	10	-	50	2
4	INT-II	INT23FTE61	Internship	-	-			100	100	4
6	FP-II	FP23FTE61	Project-II	-	8			100	100	8
7	DSC-PR-X	DSC23PRA69	Identification Of Failures In Casting	-	4			50	50	4
8	DSE-PR-II	DSE23PRA69	Advance Metal Testing-II	-	4			50	50	4
9	MIN-PR-VI	MIN23PRA69	Defect Analysis-II	-	4	-	-	50	50	4
	Total (Semester-VI)			6	20	120	30	350	500	30
	Cumulative Total (3 rd Year)			12	40	240	60	700	1000	60

	Three Years UG degree in B.Voc. Foundry Technology		3000	180
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Abbr. TH-Theory, PR-Practical, ESE- End Semester Examination, CIE-Continuous Internal Examination

Note: Minimum passing for 40 marks Theory paper = 16 marks
 Minimum passing for 10 marks Internal evaluation = 4 marks
 Minimum passing for 50 marks Practical = 18 marks
 Minimum passing for 100 marks Practical = 40 marks
 Minimum passing for 200 marks Practical = 80 marks
 Separate passing for every head- ESE, CIE and Practicals