



Vivekanand Education Society's Institute of Technology

(Autonomous Institute Affiliated to University of Mumbai, Approved by AICTE &
Recognized by Govt. of Maharashtra)
NAAC accredited with 'A' Grade

Department of Humanities & Applied Sciences

Detailed Curriculum with Credit and Examination Scheme

First-year Bachelor of Technology

SEM 1 & SEM 2

Group A

Computer Engineering

Information Technology

Group B

Electronics and Computer Science

Electronics and Telecommunications

Automation and Robotics

Artificial Intelligence and Data Science

(w.e.f. Academic Year 2024-25)



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Summary

	Credit	Credit	Examination Marks	Examination Marks
	Group A	Group B	Group A	Group B
	CMPN,INFT	AI & DS, EXTC, ETCS,AU & RO	CMPN,INFT	AI & DS, EXTC, ETCS,AU & RO
2023-24				
Sem 1	22	22	590	690
Sem 2	22	22	770	670
2024-25				
	Credit	Credit	Examination Marks	Examination Marks
	Group A	Group B	Group A	Group B
	CMPN, INFT	EXTC,ETCS AU & RO,AI & DS	CMPN ,INFT	EXTC,ETCS, AU & RO,AI & DS
Sem 1	20	22	565	665
Sem 2	22	20	745	645
Changes in 2023-24 scheme; Following changes have been made and approved for A.Y 2024-25.	<ul style="list-style-type: none">Syllabus updation for Vedic Mathematics (Sem 1), Biology for Engineers(Sem 1 & Sem 2), Mathematics(Sem1 & Sem 2), Physics (Sem 1 & Sem 2)Nomenclature has been changed for the following subjects :-			
	Sem 1	Matrices and Differential Calculus (MDC)		Fundamentals of Engineering Mathematics-1 (FEM-1)
	Sem 2	Integral Calculus and Complex Numbers(ICC)		Fundamentals of Engineering Mathematics-2 (FEM-2)
	Sem 1 & 2	C-Programming		Fundamentals of Programming(C /Java)
	<ul style="list-style-type: none">Programme Core course(PCC) scheme has been changed from (1Th+2 hr Pr) to (02+02*) with the same credit of 2 and Instructions should be conducted for the entire class.Due to this change, 25 marks of Teamwork of PCC from the total weightage of Group B (Sem 1) and Group A(Sem 2) will be deducted.			
	<ul style="list-style-type: none">Python Programming Lab is shifted from first year to second year, due to this change 25 marks of Termwork of subject from the total weightage of Group B (Sem 1) and Group A(Sem 2) will be deducted.			



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Group A (CMPN & INFT)

Teaching & Credit Scheme for Autonomous Programme 2024-25

Semester I -Teaching Scheme									
Course Type	Course code	Course Name	Teaching Scheme (Contact hrs)			Credits Assigned			
			Th	Pr	Tut	Th	Pr	Tut	Total
Basic Science Course (BS)	NBS11	Fundamentals of Engineering Mathematics-1	02	--	01	02	--	01	03
Basic Science Course (BS)	NBS12	Engineering Physics	02	02	-	02	01	--	03
Engineering Science Course (ES)	NES11	Engineering Mechanics	02	--	-	02	--	--	02
Engineering Science Course (ES)	NES12	Engineering Drawing	-	*02 (DH)+ 02(Auto CAD)	-	-	02	--	02
Engineering Science Course (ES)	NES13	Basic Electrical Engineering	03	02	-	03	01	--	04
Indian Knowledge System (IK)	NIK11	Fundamentals of Vedic Mathematics	02	--	-	02	--	--	02
Value Education (VE)	NVE11	Universal Human Values-1	02	--	--	02	--	--	02
Co curricular Activity (CC)	NCC11	Co curricular Course	--	04	-	-	02	--	02
Total Credit									20

Tutorials batchwise

** Instructions should be conducted for the entire class*



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Group B (AI & DS, EXTC, ETCS, AU & RO)

Teaching & Credit Scheme for Autonomous Programme 2024-25

Semester I - Teaching Scheme									
Course Type	Course code	Course Name	Teaching Scheme (Contact hrs)			Credits Assigned			
			Th	Pr	Tut	Th	Pr	Tut	Total
Basic Science Course (BS)	NBS11	Fundamentals of Engineering Mathematics-1	02	--	01	02	--	01	03
Basic Science Course (BS)	NBS13	Engineering Chemistry	02	02	-	02	01	--	03
Basic Science Course (BS)	NBS14	Biology for Engineers	02	--	-	02	--	--	02
Engineering Science Course (ES)	NES14	Fundamentals of Programming (C/Java)	03	02	-	03	01	--	04
Programme Core Course (PC)	NPC11	Programme Core Course	02	-	-	02	-	-	02
	NPC12								
	NPC13								
	NPC14								
Indian Knowledge System (IK)	NIK11	Fundamentals of Vedic Mathematics	02	--	-	02	--	--	02
Value Education (VE)	NVE11	Universal Human Values-1	02	--	--	02	--	--	02
Vocational/Skill Enhancement course (VS)	NVS11	Basic Workshop Practice	-	04	-	-	02	-	02
Co curricular Activity (CC)	NCC11	Co curricular Course	--	04	--	-	02	--	02
Total Credit									22

Tutorials to be conducted batchwise

NPC11-Programme Core Course for AI & DS- Digital logic and Computer Organization & Architecture

NPC12- Programme Core Course for EXTC-Digital System

NPC13- Programme Core Course for ETCS-Digital Electronics

NPC14-Programme Core Course for AU & RO-Electronic measurement and instrumentation

NES14-Fundamentals of Programming-OOPM (JAVA Programming)(AI & DS)

NES14-Fundamentals of Programming-C Programming)(EXTC, ETCS and AU & RO)



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Examination Scheme for Autonomous Programme 2024-25

Semester I - Examination Scheme								
Course Type	Course code	Course Name	TH	MT	CA	TW	PR/ OR	Total
Basic Science Course (BS)	NBS11	Fundamentals of Engineering Mathematics-1	60	20	20	--	-	100
Basic Science Course (BS)	NBS13	Engineering Chemistry	60	20	20	25	-	125
Basic Science Course (BS)	NBS14	Biology for Engineers	60	20	20	--	-	100
Engineering Science Course (ES)	NES14	Fundamentals of Programming (C/Java)	60	20	20	25	-	125
Programme Core Course (PC)	NPC11	Programme Core Course	60	20	20	-	-	100
	NPC12							
	NPC13							
	NPC14							
Indian Knowledge System (IK)	NIK11	Fundamentals of Vedic Mathematics	-	-	20	--	-	20
Value Education (VE)	NVE11	Universal Human Values-1	-	-	20	--	-	20
Vocational/Skill Enhancement course (VS)	NVS11	Basic Workshop Practice	-	-	-	50	-	50
Co curricular Activity (CC)	NCC11	Co curricular Course	-	-	-	-	25	25
Total Marks								665

NPC11-Programme Core Course for AI & DS- Digital logic and Computer Organization & Architecture

NPC12- Programme Core Course for EXTC-Digital System

NPC13- Programme Core Course for ETCS-Digital Electronics

NPC14-Programme Core Course for AU & RO-Electronic measurement and instrumentation

NES14-Fundamentals of Programming-OOPM (JAVA Programming)(AI & DS)

NES14-Fundamentals of Programming-C Programming)(EXTC, ETCS and AU & RO)



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Group A (CMPN & INFT)

Teaching & Credit Scheme for Autonomous Programme 2024-25

Semester II - Teaching Scheme									
Course Type	Course code	Course Name	Teaching Scheme (Contact hrs)			Credits Assigned			
			Th	Pr	Tut	Th	Pr	Tut	Total
Basic Science Course (BS)	NBS21	Fundamentals of Engineering Mathematics-2	02	--	01	02	--	01	03
Basic Science Course (BS)	NBS23	Engineering Chemistry	02	02	-	02	01	--	03
Basic Science Course (BS)	NBS24	Biology for Engineers	02	--	-	02	--	--	02
Engineering Science Course (ES)	NES24	Fundamentals of Programming (Java)	03	02	-	03	01	--	04
Programme Core Course (PC)	NPC21	Programme Core Course	02	-	-	02	-	-	02
Ability Enhancement Course (AE)	NAE11	Professional Communications and Ethics-I	01	--	02	01	--	01	02
Value Education (VE)	NVE22	Universal Human Values-2	02	--	--	02	--	--	02
Vocational/Skill Enhancement course (VS)	NVS21	Basic Workshop Practice	-	04	-	-	02	-	02
Co curricular Activity (CC)	NCC22	Co curricular Course	--	04	--	-	02	--	02
Total Credit									22

Tutorials to be conducted batchwise

NPC21-Programme Core Course for CMPN & INFT - Digital logic and Computer Organization & Architecture
NES24-Fundamentals of Programming-OOPM (JAVA Programming)(CMPN & INFT)



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Teaching & Credit Scheme for Autonomous Programme 2024-25

Semester II - Teaching Scheme									
Course Type	Course code	Course Name	Teaching Scheme (Contact hrs)			Credits Assigned			
			Th	Pr	Tut	Th	Pr	Tut	Total
Basic Science Course (BS)	NBS21	Fundamentals of Engineering Mathematics-2	02	--	01	02	--	01	03
Basic Science Course (BS)	NBS22	Engineering Physics	02	02	--	02	01	--	03
Engineering Science Course (ES)	NES21	Engineering Mechanics	02	--	--	02	--	--	02
Engineering Science Course (ES)	NES22	Engineering Drawing	--	*02 (DH)+ 02(Auto CAD)	--	--	02	--	02
Engineering Science Course (ES)	NES23	Basic Electrical Engineering	03	02	--	03	01	--	04
Ability Enhancement Course (AE)	NAE21	Professional Communications and Ethics-I	01	--	02	01	--	01	02
Value Education (VE)	NVE22	Universal Human Values-2	02	--	--	02	--	--	02
Co curricular Activity (CC)	NCC22	Co curricular Course	--	04	--	--	02	--	02
Total Credits									20

Tutorials to be conducted batchwise



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Semester II - Examination Scheme								
Course Type	Course code	Course Name	TH	MT	CA	TW	PR/ OR	Total
Basic Science Course (BS)	NBS21	Fundamentals of Engineering Mathematics-2	60	20	20	--	-	100
Basic Science Course (BS)	NBS23	Engineering Chemistry	60	20	20	25	-	125
Basic Science Course (BS)	NBS24	Biology for Engineers	60	20	20	--	-	100
Engineering Science Course (ES)	NES24	Fundamentals of Programming (Java)	60	20	20	25	-	125
Programme Core Course (PC)	NPC21	Programme Core Course	60	20	20	-	-	100
Ability Enhancement Course (AE)	NAE11	Professional Communications and Ethics-I	-	20	80	--	-	100
Value Education (VE)	NVE22	Universal Human Values-2	-	-	20	--	-	20
Vocational/Skill Enhancement course (VS)	NVS21	Basic Workshop Practice	-	-	-	50	-	50
Co curricular Activity (CC)	NCC22	Co curricular Course	-	-	-	-	25	25
Total Marks								745

NPC21-Programme Core Course for CMPN & INFT - Digital logic and Computer Organization & Architecture

