

**Vivekanand College, Kolhapur (Autonomous)**  
**NEP-2020: Credit Framework for Faculty of Science**  
**Single Major and Minor**

Level	Sem	Major		Minor	IDC/MDC/ OE/GE	AEC (Language)	Value Added Courses	IKS	SEC	CC	Summer Internship	Research Project / Dissertation	Total Credits
		DSC	DSE										
4.5	I	Electronics-I (2) Analog Electronics-I Electronics-II (2) Digital Electronics-I Practical-I (2)		Electronics-I (2) Analog Electronics-I Electronics-II (2) Digital Electronics-I Practical-I (2)	OE-I (2) Circuit Fundamentals-I OE-II (2) Semiconductor Devices-I Practical-I (2)	English (2)	-	IKS(2) Introduction to IKS				-	
	Credits	4+2=6		4+2=6	2+2=4	2		2				-	22
	II	Electronics-III (2) Analog Electronics-II Electronics-IV (2) Digital Electronics-II  Practical-I (2)		Electronics-III (2) Analog Electronics-II Electronics-IV (2) Digital Electronics-II  Practical-I (2)	OE-III (2) Circuit Fundamentals -II OE-IV (2) Semiconductor Devices-I Practical-I (2)	English (2)			SEC-I (2) Circuit simulation			-	
	Credits	4+2=6		4+2=6	2+2=4	2						-	22
			12		12	8	4		2	2			
Exit option: Award of UG Certificate in Major with 40-44 credits and an additional 4 credits core NSQF course/ Internship OR Continue with Major and Minor													
5.0	III	Electronics-V (2) Electronic Communication Electronics-VI (2) Microprocessor 8085 Practical-II (4)		Electronics-V (2) Practical-III (2)		English (2)	VAC- I (2) Democracy AEC- I (2) Environmental Sc.		SEC-II (2) Solar Systems  SEC-III (2) Solar Systems(P)				
	Credits	4+4=8		2+2=4		2	4		4			-	22
	IV	Electronics-VII (2) Operational Amplifier Electronics-VIII (2) Microcontroller 8051 Practical-II (4)		Electronics-VI (2) Practical-IV (2)		English (2)	AEC-II (2) Environmental Science		SEC-IV (2) PCB designing SEC-V (2) IoT Technician	CC (2)			
	Credits	4+4=8		2+2=4		2	2		4			-	22
	Credits	16		8		4	6		8	2			44
Exit option: Award of UG Diploma in Major and Minor with 80-88 credits and an additional 4 credits core NSQF course/ Internship OR Continue with Major and Minor													

5.5	V	Electronics-IX (2) Fundamentals of Instrumentation Electronics-X (2) 8051 Microcontroller Interfacing and Embedded C Electronics-XI (2) Antenna and Wave Propagation Electronics-XII (2) Programmable Logic Controller(PLC) Practical-III (8)	Electronics- XIII [Elective I (2)] Computer Networks	Electronics-VII(2)	-	-	-	-	-	FP (2)	-			
	Credits	8+8=16	2+0=2	2 +0=2			-			2		22		
	VI	Electronics- XIV (2) Industrial Instrumentation Electronics- XV (2) Advanced Microcontroller Electronics- XVI (2) Power Electronics Electronics- XVII (2) Internet of Things Practical-III (8)	Electronics-XVIII [Elective II (2)] FPGA & VHDL Programming /Robotis	Electronics-VIII (2)	-	-	-	-	-	OJT (2)	-			
	Credits	8+8=16	2+0=2	2 +0=2			-			2		22		
	Credits	32	4	4						4		44		
Exit option: Award of UG Degree in Major with 120-132 credits OR Continue with Major and Minor														
6.0	UGC	60/60	4	24/24	Minor	12/9 IDC/MDC/OE/GE	8/8 AEC	6/6 VAC	2/2 IKS	10/9 SEC	2/2 CC	4/4 FP+OJT	-	132/ 132
	VII	Electronics-XIX (2) Electronics-XX (2) Electronics-XXI (2) Electronics-XXII (2) Practical-IV (6)	Electronics-XXIII [Elective I (2)] Practical-IV(2)	Research Methodology (4)										
	Credits	8+6=14	2+2=4	4+0=4										22
	VIII	Electronics-XXIV (2)	Electronics-XXVIII									OJT (4)		

	Electronics-XXV (2) Electronics-XXVI (2) Electronics-XXVII (2) Practical-IV (6)	[Elective I (2)] Practical-IV(2)										
<b>Credits</b>	<b>8+6=14</b>	<b>2+2=4</b>										<b>22</b>
<b>Credits</b>	<b>28</b>	<b>8</b>	<b>4</b>							<b>4</b>		<b>44</b>

**Four Year UG Honours Degree in Major and Minor with 160-176 credits**

<b>6.0</b>	<b>VII</b>	Electronics-XIX (2) Electronics-XX (2) Electronics-XXI (2) Practical-IV (4)	Electronics-XXII (2) [Elective I (2)] Practical-IV(2)	Research Methodology (4)								RP(4)		
	<b>Credits</b>	<b>6+4=10</b>	<b>2+2=4</b>	<b>4+0=4</b>								<b>4</b>	<b>22</b>	
	<b>VII</b>	Electronics-XXIII (2) Electronics-XXIV (2) Electronics-XXV (2) Practical-IV (4)	Electronics-XXVI (2) [Elective I (2)] Practical-IV(2)										RP(8)	
	<b>Credits</b>	<b>6+4=10</b>	<b>2+2=4</b>	<b>0</b>								<b>8</b>	<b>22</b>	
	<b>Credits</b>	<b>20</b>	<b>8</b>	<b>4+0=4</b>								<b>12</b>	<b>44</b>	

**Four Year UG Honours with Research Degree in Major and Minor with 160-176 credits**

