SNDT Women's University

Undergraduate Diploma / UG Programme

As Per NEP – 2020

Diploma in Electronics

Faculty of Science and Technology

(Revised 2025-Regular)

Program Code: -

Terminologies

Abbreviation	Full-form	Remarks	Related to Major / Minor Courses
DSC	Discipline Specific Course	Core subjects of Electronics	Major Discipline
DSE	Discipline Specific Elective	Elective options related to Electronics	Major Discipline
VEC	Value Education Course	Courses on ethics, environment, constitution, etc.	Minor/General
INP	Internship / Apprenticeship / Project / Community Engagement	Practical exposure, industry linkage	Applied Learning
FP	Field Project Engagement	Practical exposure, mid and final year project, industry linkage	Applied Learning
BSC	Basic Science Course	Physics, Chemistry	General
AEC	Ability Enhancement Course	Communication, soft skills, and professional English	General
SEC	Skill Enhancement Course	Lab-based skill modules, add-on certifications	Applied Skills
GE	Generic Elective	Open electives from other disciplines	Minor/Interdisciplinary
CEC	Co-curricular / Extracurricular Activity	Sports, cultural, NSS, and technical clubs	Holistic Development
OJT	On Job Training	Industry-based training is part of the curriculum for practical exposure.	Major (Applied Learning / Industry Exposure)

Program Template

Programme Outcomes	Graduates of the **Diploma in Electronics Engineering** programme will be able to: **PO 1: Basic Knowledge** Apply knowledge of mathematics, basic sciences, and engineering fundamentals to solve electronics engineering problems. **PO 2: Discipline Knowledge** Develop electronic applications in the embedded systems domain and investigate, analyze, and troubleshoot problems in analog and digital electronic systems within realistic constraints. **PO 3: Experimentation and Practice** Plan, perform, and interpret experiments and hands-on practices to solve engineering problems effectively. **PO 4: Engineering Tools** Select, use, and troubleshoot modern engineering tools to design electronic applications while considering practical limitations and constraints. **PO 5: Engineer and Society** Demonstrate awareness of societal, health, safety, legal, and cultural responsibilities relevant to the field of electronics engineering. **PO 6: Environment and Sustainability** Adopt appropriate norms and practices of e-waste management and energy conservation to support environmental sustainability. **PO 7: Ethics** Practice professional ethics and adhere to quality and safety standards while performing the duties of an electronics engineer. **PO 8: Individual and Team Work** Work effectively both as an individual and as a member of multidisciplinary teams. **PO 9: Communication** Communicate effectively with peers, superiors, subordinates, customers, and users through verbal, written, and graphical means. **PO 10: Lifelong Learning** Recognize the need for and engage in independent and lifelong learning in response to technological advancements.

Programme Specific Outcomes	The graduate diploma in Electronics will be able to, **PSO 1:** Design, prototype, analyze, and test embedded systems for simple applications using suitable microcontrollers. **PSO 2: Apply** the principles of modern analog and digital communication systems, electrical machines, and power electronic circuits. **PSO 3:** Demonstrate professional and technical skills required to work effectively in an industrial environment. **PSO 4:** Apply grassroots-level and technical innovations to solve real-world problems.
Eligibility Criteria for Programme	As Per DTE Maharashtra Guidelines
Intake (For SNDTWU Departments and Conducted Colleges)	As Per the University Affiliation Letter
Year 1 (44 Credits) Total Credit Points Earned: 154 Exit Option: Eligible with 162 Credit Points	Certificate in Electronics Engineering (NCrF Level 3.5) A student who successfully completes the First Year of the Diploma in Electronics Engineering program will earn 154 credit points. Upon earning 162 credit points, the student becomes eligible to exit the program with a Certificate in Electronics Engineering (NCrF Level 3.5). By the end of Year 1, the learner will have developed foundational competencies in: 1. Basic Electronics 2. Electrical Technology 3. Applied Sciences Fundamental engineering skills necessary for higher-level technical learning As part of the credit structure, the student must complete one On-the-Job Training (OJT) / Skill Module valued at 8 credits (240 hours) in the Electronics or allied engineering domain. This practical component is mandatory and must be completed in an industry/organization approved by the Department of Electronics to qualify for the exit certificate.
Year 2 (44 Credits) Exit Option Total credit points earned 176,	A student who successfully completes the Second Year of the Diploma in Electronics Engineering program earns 176 credit points. Upon earning 184 credit points, the student becomes eligible to exit with an Advanced Certificate in Electronics Engineering

Exit Option:- Cedit points earned 184	Advanced Certificate in Electronics Engineering(NCrF Level 4). By the end of Year 2, the learner will have developed applied competencies in: 1. Analog and Digital Circuits 2. Microcontrollers and Embedded Systems 3. Communication Systems 4. PCB Design and Electronic Hardware Development To qualify for this exit option, the student must complete: A Mini Project, and A Short-Term Industrial Exposure / Internship of minimum 8 weeks, approved by the Department of Electronics, carrying 8 credits. This experiential component is mandatory, ensures workplace readiness, and must be successfully certified for the award of the Advanced Certificate.
Year 3 (44 Credits) Total credit points earned 198, Exit Option:- Cedit points earned 206	D. Voc. in Electronics Engineering (NCrF Level 4.5) A student who successfully completes the Third Year of the Diploma in Electronics Engineering program earns 198 credit points. Upon earning 206 credit points, the student becomes eligible to exit with a Diploma in Vocational (D. Voc.) in Electronics Engineering (NCrF Level 4.5). By the end of Year 3, the learner will demonstrate advanced technical proficiency in: 1. Digital Communication 2. Embedded System Design 3. Internet of Things (IoT) 4. Power Electronics 5. Professional, managerial, and entrepreneurial skills supporting industry readiness To qualify for the D. Voc. exit, the student must complete: An Industrial Internship / Apprenticeship of 240 hours (8 credits), and A Minor Project, Both of which are evaluated jointly by the industry supervisor and the faculty mentor. Successful completion and certification of these components are mandatory for the award of the Diploma in Vocational Education (D. Voc.) in Electronics Engineering.
Year 4 (44 Credits) Total credit points earned 220	Diploma in Electronics Engineering (NCrF Level 5) A student who successfully completes all eight semesters, earning a total of 220 credit points, will be awarded the Diploma in Electronics Engineering (NCrF Level 5). By the end of the program, the graduate will demonstrate comprehensive expertise in: 1. Modern Communication Systems 2. VLSI and Embedded Technologies

	3. Industrial Automation and Control 4. Sustainable and Energy-Efficient Electronic System Design The final year includes two mandatory components: A Major Internship of 24 weeks, and A Capstone Project Both components must be successfully completed and jointly certified by academic faculty and industry evaluators. Completion of these requirements is essential for the award of the Diploma in Electronics Engineering..

Structure with Course Titles
Diploma in Electronics Semester – I

SN	Courses	Types of Course	Credits	Duration Hrs per week			Int		Ext		Marks
				L	T	P	Term Work	Practical	Theory paper	Practical	
10137111	**Elements of Electronics**	DSC	3.00	3	-	-	25	-	50	-	75
10137121	**Elements of Electronics**	DSC	1.00	-	-	2	-	10	-	15	25
10737121	**Electronics Workshop and Engineering Drawing**	SEC	4.00	-	-	8	-	50	-	50	100
10837111	**Basic Mathematics**	AEC	4.00	3	2	-	50	-	50	-	100
10837112	**Communicatio n Skill-I**	AEC	2.00	2	-	-	-	-	50	-	50
10837122	**Communicatio n Skill-I**	AEC	1.00	-	-	2	-	10	-	15	25
12037111	**Basic Science**	BSC	3.00	3	-	-	25	-	50	-	75
12037121	**Basic Science**	BSC	1.00	-	-	2	-	10	-	15	25
10937101	**Indian Values and Ethics**	VEC	1.00	1	-	-	25	-	-	-	25
11437101	**Community Engagement & Development I**	CEC	1.00	-	-	2	-	25	-	-	25
Total			21	12	2	16	125	105	200	95	525
							230		295		

Structure with Course Titles
Diploma in Electronics Semester – II

SN	Courses	Types of Course	Credits	Duration Hrs per week			Int		Ext		Marks
				L	T	P	Term Work	Practical	Theory paper	Practical	
20137111	**Basic Electronics**	DSC	3.00	3	-	-	25	-	50	-	75
20137121	**Basic Electronics**	DSC	1.00	-	-	2	-	10	-	15	25
20137112	**Electrical Technology**	DSC	3.00	3	-	-	25	-	50	-	75
20137122	**Electrical Technology**	DSC	1.00	-	-	2	-	10	-	15	25
20737111	**Embedded C Programming**	SEC	2.00	2	-	-	25	-	25	-	50
20737121	**Embedded C Programming**	SEC	2.00	-	-	4	-	25	-	25	50
20837111	**Applied Mathematics**	AEC	4.00	3	2	-	50	-	50	-	100
20837112	**Communication Skills - II**	AEC	2.00	2	-	-	-	-	50	-	50
20837122	**Communication Skills - II**	AEC	1.00	-	-	2	-	10	-	15	25
22037111	**Applied Science**	BSC	2.00	2	-	-	-	-	50	-	50
22037121	**Applied Science**	BSC	1.00	-	-	2	-	10	-	15	25
21437101	**Community Engagement & Development II**	CEC	1.00	-	-	2	25	-	-	-	25
Total			23	15	2	14	150	65	275	85	575
							230		345		