BANWARILAL BHALOTIA COLLEGE, ASANSOL

Department of Electronics

Program outcomes, Program specific outcomes,

Course outcomes.

Program objectives and course outcomes for B.Sc(Program) in Electronics.

Program	Program Objectives	Program Specific Objectives
B.Sc (Program) in Electronics	By enrolling into this program, the students become educated in daily use electronic equipment like radio, T.V, Fridge, micro-oven, inverter, telephony system, mobile, electronic charger, power supply, rectifier, amplifier, oscillator etc. The Program is oriented in such a way that it helps students to repair daily useable electronic devices. Through SEC, they can acquire knowledge on house wiring and repairing & servicing of refrigerator, micro-oven, induction heater, gas stoves, geyser, coil winding of fans, grinder- mixer repairing and also can transfer knowledge to other devices.	**PSO 1:** To help students to understand different circuit Theory& Network analysis- both Theoretically and Practically.
		PSO 2: To make students to familiar with the understanding of the basic principle of operation on semiconductor devices.
		PSO 3: To help students to acquire knowledge on radio wave communication system and designing &fabrication of electronic circuits
		PSO 4: To stimulate students on acquiring knowledge on Analog Electronics, household wiring and repairing of domestic appliances
		PSO 5: To make students familiar with the understandings of the basic principles of Digital Electronics.
		PSO 6: To make students to understand the basic principle oF Radio & Television.

Course outcomes:

Course		Course Outcomes
Semester - i	Core Course – 1 Course Name: Circuit Theory and Network Analysis. Code: BSCPELCC101	Understand the basic circuit concepts, DC Transient Analysis, AC circuit theory analysis, Network theorems and circuit analysis.
	Core Course - 1 (Practical) Course Name: Circuit Theory & Network Analysis. Code: BSCPELCC 102	Understand the knowledge on basic electronic components, digital multimeter, function generator, C.R.O and verification of different theorems and study on resonance circuits. ,
Semester - 11	Core course - 11 Course Name: Solid State Electronics. Code: BSCPELCC201	Learn the properties of Semiconductor Physics, junction diode and its applications, biasing of transistors, its mode of operation, characteristics of JFET, MOSFET and construction with working principle of UJT.
	Core Course -11 (Practical) Course Name: Solid State Electronics. Code: BSCPELCC 202	Acquire practical knowledge on the characteristics of PN junction, PNP/NPN transistors, Zener diode, JFET and understand the properties of rectifiers and Zener diode as Voltage regulator.
Semester - 111	Core Course - V11 Course Name: Electronic Communication. Code: BSCPELCC 301	Learn the process of radio wave propagation, acquire the knowledge of electronic communication system, modulation and demodulation and Satellite communication.

	SEC - 1 Course Name: Design and Fabrication of Electronic circuits Code: BSCPELCSE 302	Understand electronic components and designed AF amplifier, FET amplifier, OP - AMP oriented circuits, modulator and demodulator.

Course		**Course Outcomes**
Semester - IV	Core Course - X Course Name: Analog Electronics. Code: BSCPELCC401	Understand feedback in amplifier, power amplifier, different type of oscillators and basic idea of multivibrators, different OP - AMP Circuits, inverting & noninverting amplifier, adder, integrator and differentiator
	Core Course - X (Practical) Course Name: Analog Electronics. Code: BSCPELCC 402	Familiarize with the Practical knowledge on characteristics of PNP/NPN transistors & JFET, Justify OP - AMP as amplifier and adder.
	SEC - 2 Course Name: Household wiring and repairing of domestic appliances Code: BSCPELCSE 403	Learn fundamental concept of household wiring and easily repair domestic appliances like refrigerator, micro-oven, conduction heater, geyser etc.
Semester -V	DSE - IA Course Name: Digital Electronics. Code: BSCPELCDSE 501	Understand the number system, Boolean algebra, acquire knowledge on logic gates, combinational logic and sequential circuits
	DSE - IA (Practical) Course Name: Digital Electronics. Code: BSCPELCDSE 502	Acquire the knowledge of basic logic gates, universal logic gates, SOP and POS circuits and Karnaugh Map.

	SEC - 3 Course Name: Study on FG, R-S flip- flop, decade counter and M -S Flip flop. Code: BSCPELCSE503	Design & study on FG, R-S Flip flop, M-S Flip flop and decade counter.

Course		**Course Outcomes**
Semester - VI	DSE - IB Course Name: Radio and Television Code: BSCPELCDSE 601	Understand radio communication system and different process of radio wave propagation, historical development of T.V-black and white& color.
	DSE- IB(Lab) Course Name: Measurement of signal characteristics. Code: BSCPELCDSE602	Understand the process of using CRO, transducer for measuring pressure, temperature and photoresistor
	SEC - 4 Course Name: Design and study of DC Power supply using IC. Code: BSCPELCSE603	Acquire knowledge of designing Power Supply using IC.