

Basic Electronics Course Syllabus (65 Days)

WEEK 1-2: ELECTRONIC BASICS (Day 1-14)

1. Introduction to Electricity & Current
2. Voltage, Resistance & Ohm's Law
3. Series & Parallel Circuits
4. Power & Energy Basics
5. Types of Current: AC vs DC
6. Electrical Safety
7. Weekly Quiz + Doubt Session
8. Introduction to Electronic Components
9. Resistors: Types & Color Code
10. Capacitors: Types, Working
11. Diodes & Rectifiers
12. Inductors & Transformers
13. Batteries & Power Supplies
14. Component Identification Activity

WEEK 3-4: TESTING & MEASUREMENT TOOLS (Day 15-28)

15. Multimeter Use & Readings
16. Testing Resistor, Capacitor, Diode
17. Continuity & Voltage Testing
18. Oscilloscope Basics (CRO/DSO)
19. DC Bench Power Supply Usage
20. LED Blinker Circuit Project
21. Weekly Quiz + Review
22. Breadboard & Soldering Basics
23. Soldering Exercise
24. Desoldering Practice
25. Testing Power Cables, Adapters
26. Testing Mobile Batteries, Connectors

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- 27. Lab Safety & ESD Precautions
- 28. Component Revision + Quiz

WEEK 5-6: CIRCUITS & LOGIC (Day 29-42)

- 29. Circuit Diagram Reading
- 30. Schematic vs PCB View
- 31. Logic Gates: AND, OR, NOT, NAND
- 32. Timer IC 555: Working & Uses
- 33. Relay Basics & Control Circuits
- 34. Home Projects (Fan, Bulb)
- 35. Weekly Quiz + Doubts
- 36. Relay + Buzzer + LED Hands-On
- 37. Voltage Regulator (78xx series)
- 38. Zener Diode, TVS Diode Protection
- 39. Transistor Types & Working (NPN/PNP)
- 40. Transistor Testing with Multimeter
- 41. Mini Project: Power Supply Circuit
- 42. Review & Practice Tasks

WEEK 7-8: APPLIED ELECTRONICS (Day 43-56)

- 43. Voltage Divider & Amplifier Circuit
- 44. Introduction to Microcontrollers
- 45. Arduino Basics (ATmega328P)
- 46. Relay + Sensor Project
- 47. PCB Reading: Tracks & Pads
- 48. Mobile Schematics Reading
- 49. DC to DC Converters
- 50. Battery Charging ICs
- 51. Mobile Motherboard Overview

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- 52. Power & Logic Line Revision
- 53. Mini Project: Regulated Power Bank
- 54. Career Path in Electronics & Repair
- 55. Soft Skills + Resume Tips
- 56. Final Quiz + Certification Info

DAY 57-61: PRACTICAL TRAINING (PATNA/KOLKATA)

- 57. Lab Induction + Tool Demo
- 58. Soldering, Desoldering, Component Testing
- 59. Mobile PCB Line Tracing + Fault Finding
- 60. Power Supply & Relay Project Building
- 61. Final Assessment + Certificate Distribution

EXTRA FEATURES

- WhatsApp Doubt Group
- App Access for Replays
- Worksheets & PDFs
- Live Challenges & Homework
- Certificate (Digital + Physical)