|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sem | Course Code Course Name (L-T-P)C | Value Added Courses | GP Courses | Community Service |  Lecture Courses | L | P  | Weekly Contact\Total | Credits |
| I | ASL 121Engg. Phy. (3-0-2)4 | ASL101Engg. Maths I (3-0-2)4 | CSL150C Prog(1-0-4)3 | ECL110BEEE (3-0-2)4 | CSP100 Problem Solv. and design thinking (1-0-2)2 | CLL101Eff Comm. I(1-0-2)2 |   |   | ECR107Gen.Prof(0-1-0)1 |  | 5 | 12 | 14 | 26 | 20 |
| II | ASL128 Engg. Materials(2-0-2)3 | ASL102Engg.Maths-II (3-0-2)4 | MEL140Elementsof M.E.(2-0-2)3 | CSL213Elementary Data Struc(2-0-2)3 | ECP100 Intro to Engg. Design (0-0-2)1 | MEP130 Engg. Pr.(0-0-4)2 | CLL102Eff Comm. II (1-0-2)2 |  | ECR108Gen.Prof(0-1-0)1 |  | 5 | 10 | 16 | 26 | 19 |
|  |  ECT106: In House Training for Minor Projects |   |   |   | 01 |
| III | ECL201NT(3-0-2)4 | ECL203A E(3-0-2)4 | ECL205FAW(3-0-0)3 | ASL201/220Maths Elective (3-0-2)4 | CSL204/213CS Elective(3-0-2) 4 |  |  |   | EEV201 Tech-VA I (0-0-2)1 | ECR207Gen.Prof(0-1-0)1 |  | 5 | 15 | 10 | 25 | 21 |
| IV | ECL200DE(3-0-2)4 | ECL202ACS(3-0-2)4 | ECL206S&S(3-0-2)4 | PE-I (2-0-2)3 |  ASL140Envir. Stds.(3-0-0)3 |  |  |   | EEV202 Tech-VA II (0-0-2)1 | ECR208Gen.Prof(0-1-0)1 |  | 5 | 14 | 10 | 24 | 20 |
|  |  ECT208: Industrial Training |   |   |   | 02 |
| V | ECL301AWP(3-0-2)4 | ECL303DCS(3-0-2)4 | ECL305ICA(3-0-2)4 | FLC(2-0-2)3 | PE-II(2-0-2)3(Includes IBM Course) |  |  CLP120Creative Writing (0-0-2)1 |   | EEV301Tech-VA III(Project based)DSD (1-0-2)2 | ECR307Gen.Prof(0-1-0)1 |  | 5 | 14 | 12 | 26 | 22 |
| VI | ECL350DSP(3-0-2)4 | ECL310MP&MC(3-0-2)4 | PEIII(2-0-2)3 (Includes IBM Course) | PE-IV(2-0-2)3 | OC-I(2-0-2)3 |  | ECD306ET based.Project(0-0-2)1 | CLP310(0-0-2)1CTC | ECR308Gen.Prof(0-1-0)1 |  |  5 | 12 | 14 | 26 | 20 |
|  |  ECT308: Industrial Training |   |   |   | 03 |
| VII | PE-V(2-0-2)3 (Includes IBM Course) | PE VI(2-0-2)3 | HM Elective 1 (2-0-2)3 | OC II(2-0-2)3  | HM Elective II (2-0-2)3 | ECD405Major Project (A) (0-0-4)2 | ECC407Seminar(0-0-1)1 |  |  |  ECR407Gen.Prof(0-1-0)1 | ECS 401Part-1(70 HRS)S/NS Course | 5 | 10 | 11 | 21 | 20 |
| VIII | PE-VII(2-0-2)3 | PE - VIII(2-0-2)3 | PE-IX(2-0-2)3 |  | CLL120HVPE(2-0-0)2 |  ECD406Major Project (B)(0-0-8)4 |  |   |   |  SEG400GATE(0-2-0)2 | ECS 402Part-2(70 HRS)2 Credit | 4 | 8 | 6 | 14 | 18 |
|  | Total Credits |  |  |  |  |  |  | 166 |

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|  | Sem IV | Sem V | Semester VI | Semester VII | Semester VIII |
| TRACK | PE-I | PE-II | PE-III | PE-IV | PEV | PE-VI | PE-VII | PE-VIII | PE-IX |
| TRACK I: Circuits and VLSI | ECL308 Semicond. Devices | **ECL322 Comp. Architect. Org** | ECL304Into. to VLSI | ECL313Adv. Digital System Design | **ECL315 Analog CMOS Circuit Design** | **ECL419 VLSI fabrication Tech.** | **ECL417 Verification using system verilog** | ECL402 Microcontr. Interfac. and Appl | ECL404 MEMS and microsystems |
| TRACK II: Communication Engg. | ECL309 Information Theory and Coding | ECL302Data Comm. and Networks | ECL314 Telecom Switching | ECL312 Microwave and Radar | ECL316Wireless and Mobile Comm. | ECL411 Optical Comm./ ECL416Image Processing | ECL401Satellite & TV/ ECL 422 Stat. Signal Proc. | **ECL428 Mobile Computing**/ECL415 Speech Proc. | ECL426 Adv. Wireless Comm. Sys/CSL326 Network Sec. and Cryp |
| TRACK III: Internet of things | CSL 315Intro. to DBMS | ECP311 Foundn course in Cloud Comp(1-0-4)3 | **ECL323 Biomedical Electronics** | **ECL 324 Wireless sensor networks** | ECP322 Fndn in Big Data Analytics (1-0-4)3  | **ECL 413 Machine Learning** | ECP421 IoT based App dev. (1-0-4)3 | ECL402 Microcontr. Interfac. and Appl | **ECL427 Robotics** |
| Other Electives |  | **ECL319 Digital Marketing** | MAL104 Linear Algebra |  | ECL410 Artificial Neural Networks |  | ECL420Fuzzy Sets and Appl. | ECL440Optimization Techniques | ECL430 Genetic Algorithm |
|  |  |  |  | Selected Topics in ECE course | Selected Topics in ECE course | Selected Topics in ECE course |  |  | ECL352N Design for IOT |

PROGRAM ELECTIVE COURSES

**Note:**

**1. Tracks are only suggested. Students are free to choose electives as per their choices.**

**2. Selected topics in ECE will includes the latest and current technological courses offered and content will be decided by subject expert.**

**\*Open Course electives will include two subjects: 1. IPR and 2. Science, technology and law to be offered by Law department.**

**\*Suitable online courses from reputed Universities/Organizations may be offered as electives as per NCU policies.**