



**NEW HORIZON  
COLLEGE OF ENGINEERING**

New Horizon Knowledge Park, Ring Road, Marathalli  
Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC  
Accredited by NAAC with 'A' Grade, Accredited by NBA

## **OFFICE OF DEAN ACADEMICS**

**26<sup>th</sup> Academic Council Meeting**

**AY 2024-2025**

**02<sup>nd</sup> August, 2024**

## **Members of the Academic Council**

| Sl No. | Category                                                                               | Sl No. | Name                                                                    |
|--------|----------------------------------------------------------------------------------------|--------|-------------------------------------------------------------------------|
| I      | Principal of the College - Chairman                                                    | 1      | Dr. Manjunatha                                                          |
| II     | Dean-QAIE                                                                              | 1      | Dr. Sanjeev Sharma                                                      |
| III    | Dean - R&D                                                                             | 1      | Dr Revathi V                                                            |
| IV     | Controller of Examination                                                              | 1      | Dr. Vijilius H Raj                                                      |
| V      | Director - Library and Alumni Relations                                                | 1      | Dr. Anitha S Rai                                                        |
| VI     | Director - Centre for Life Skills and Skill Development                                | 1      | Dr. Sowmya Narayanan                                                    |
| VII    | All Heads of the Dept. - Members                                                       | 1      | Dr. B Rajalakshmi                                                       |
|        |                                                                                        | 2      | Dr. Aravinda K                                                          |
|        |                                                                                        | 3      | Dr. Uma Reddy                                                           |
|        |                                                                                        | 4      | Dr. Sakthivel Aruchamy                                                  |
|        |                                                                                        | 5      | Dr. Narayana Swamy Ramaiah                                              |
|        |                                                                                        | 6      | Dr. Baswaraju Swathi                                                    |
|        |                                                                                        | 7      | Dr. Vandana C P                                                         |
|        |                                                                                        | 8      | Dr. Asha V                                                              |
|        |                                                                                        | 9      | Dr. Rose Kavitha                                                        |
|        |                                                                                        | 10     | Dr. Anusuya Devi V S                                                    |
|        |                                                                                        | 11     | Dr. Srinivasa G                                                         |
|        |                                                                                        | 12     | Mr. Rakesh Chandrashekar                                                |
|        |                                                                                        | 13     | Ms. Snehal R Lahande                                                    |
| VIII   | Teachers of the College representing different level of teaching staff                 | 1      | Dr M. Jayanthi, Associate Professor                                     |
|        |                                                                                        | 2      | Dr B Meenakshi Sundaram, Professor                                      |
|        |                                                                                        | 3      | Dr K. Saravanan, Professor                                              |
|        |                                                                                        | 4      | Ms Asha Rani Borah, Sr Assistant Professor                              |
|        |                                                                                        | 5      | Dr S. Sujitha, Professor                                                |
|        |                                                                                        | 6      | Dr Kavitha, Professor                                                   |
|        |                                                                                        | 7      | Dr. J. Joshua Daniel Raj, Associate Professor                           |
|        |                                                                                        | 8      | Dr Srinath M K, Associate Professor                                     |
|        |                                                                                        | 9      | Dr Arpana Prasad, Associate Professor                                   |
|        |                                                                                        | 10     | Dr Dhanalakshmi R V, Associate Professor                                |
|        |                                                                                        | 11     | Dr Prashanth K S, Professor                                             |
| IX     | Experts from outside the college representing areas such as industry, R & D, Tech. Edn | 1      | Mr. Sandeep Jain, Founder & CEO, GeekforGeeks                           |
|        |                                                                                        | 2      | Mr. Ananthamani, Vice President - PLM & Mech/Elec Capgemini Engineering |
|        |                                                                                        | 3      | Dr. K N Subramanya, Principal, R V College of Engineering               |

|           |                                          |          |                                                                                                                   |
|-----------|------------------------------------------|----------|-------------------------------------------------------------------------------------------------------------------|
| <b>X</b>  | <b>Nominees of University (VTU)</b>      | <b>1</b> | <b>Dr. Shadashive Gowda, Principal-Vidya Vardhaka College of Engineering, Mysore</b>                              |
|           |                                          | <b>2</b> | <b>Dr. Shivyogimath,<br/>Prof., Dept. of Civil Engineering,<br/>Basaveswara Engineering College,<br/>Bagalkot</b> |
| <b>XI</b> | <b>Dean Academics – Member Secretary</b> | <b>1</b> | <b>Dr. R. J. Anandhi</b>                                                                                          |

**NEW HORIZON COLLEGE OF ENGINEERING**  
**ACADEMIC COUNCIL MEETING –AY 2023-2024**

**AGENDA**

**Date: 02/08/2024**

**Venue:** Discussion Room, Chatrapathi Shivaji Block/**Blended Mode**

**Time: 02.00 pm**

**AGENDA Points:**

1. Welcome address
2. Discussion of Scheme of Study for 2nd year, 3rd year and final year UG Programs for the AY 2024-25 based on VTU guidelines
3. Discussion of Scheme of Study for 1st year UG Program for the AY 2024-25 based on VTU guidelines
4. Proposal and approval of scheme of study for PG programs for the AY 2024-25
5. Proposed reforms in Teaching and Learning processes and evaluation process.
6. Result analysis of II, IV, VI, VIII Semester BE
7. Value Added Programs
8. Research and Development Programs
9. Skill Development activities
10. English/Language Lab Details
11. Any other points with Approval of Chairman



**ACM MEETING – AY 2024-25: ATTENDANCE SHEET**

VENUE: CONFERENCE HALL/Blended Mode

Date: 02/08/2024

Time: 2:00 PM

| Sl No. | Category                                                | Sl No. | Name                       | Signature |
|--------|---------------------------------------------------------|--------|----------------------------|-----------|
| I      | Principal of the College - Chairman                     | 1      | Dr. Manjunatha .           |           |
| II     | Dean-QAIE                                               | 1      | Dr.Sanjeev Sharma          | ONLINE    |
| III    | Dean – R&D                                              | 1      | Dr Revathi V               | 21/8/24   |
| IV     | Controller of Examination                               | 1      | Dr. Vijilius H Raj         |           |
| V      | Director - Library and Alumni Relations                 | 1      | Dr. Anitha S Rai           |           |
| VI     | Director - Centre for Life Skills and Skill Development | 1      | Dr. Sowmya Narayanan       |           |
| VII    | All Heads of the Dept. - Members                        | 1      | Dr. B Rajalakshmi          | 02 Aug 24 |
|        |                                                         | 2      | Dr. Aravinda K             | 02.08.24  |
|        |                                                         | 3      | Dr. Uma Reddy N.V          | 21/8/24   |
|        |                                                         | 4      | Dr. Sakthivel Aruchamy     |           |
|        |                                                         | 5      | Dr. Narayana Swamy Ramaiah |           |
|        |                                                         | 6      | Dr. Baswaraju Swathi       | ONLINE    |
|        |                                                         | 7      | Dr. Vandana C P            | 21/8/2024 |
|        |                                                         | 8      | Dr. Asha V                 |           |
|        |                                                         | 9      | Dr. Rose Kavitha           |           |
|        |                                                         | 10     | Dr. Anusuya Devi V S       |           |
|        |                                                         | 11     | Dr. Srinivasa G            |           |
|        |                                                         | 12     | Mr. Rakesh Chandrashekar   |           |



## ACM MEETING – AY 2024-25: ATTENDANCE SHEET

VENUE: CONFERENCE HALL/Blended Mode

Date: 02/08/2024

Time: 2:00 PM

| Sl No. | Category                                                                               | Sl No. | Name                                                                    | Signature          |
|--------|----------------------------------------------------------------------------------------|--------|-------------------------------------------------------------------------|--------------------|
| VIII   | Teachers of the College representing different level of teaching staff                 | 1      | Dr M. Jayanthi, Associate Professor                                     | ONLINE             |
|        |                                                                                        | 2      | Dr B Meenakshi Sundaram, Professor                                      | ONLINE             |
|        |                                                                                        | 3      | Dr K. Saravanan, Professor                                              | ONLINE             |
|        |                                                                                        | 4      | Ms Asha Rani Borah, Sr Assistant Professor                              | ONLINE             |
|        |                                                                                        | 5      | Dr S. Sujitha, Professor                                                | <i>[Signature]</i> |
|        |                                                                                        | 6      | Dr Kavitha, Professor                                                   | <i>[Signature]</i> |
|        |                                                                                        | 7      | Dr. J. Joshua Daniel Raj, Associate Professor                           | ONLINE             |
|        |                                                                                        | 8      | Dr Srinath M K, Associate Professor                                     | ONLINE             |
|        |                                                                                        | 9      | Dr Arpana Prasad, Associate Professor                                   | ONLINE             |
|        |                                                                                        | 10     | Dr Dhanalakshmi R V, Associate Professor                                | <i>[Signature]</i> |
|        |                                                                                        | 11     | Dr Prashanth K S, Professor                                             | ONLINE             |
| IX     | Experts from outside the college representing areas such as industry, R & D, Tech. Edn | 1      | Mr. Sandeep Jain, Founder & CEO, GeekforGeeks                           | ONLINE             |
|        |                                                                                        | 2      | Mr. Ananthamani, Vice President – PLM & Mech/Elec Capgemini Engineering | ONLINE             |
|        |                                                                                        | 3      | Dr. K N Subramanya, Principal                                           | ONLINE             |
| X      | Nominees of University (VTU)                                                           | 1      | Dr. Shadashive Gowda, Principal                                         | ONLINE             |
|        |                                                                                        | 2      | Dr. Shivyogimath, Prof., Dept. of Civil Engineering                     | ONLINE             |
| XI     | Dean Academics – Member Secretary                                                      | 1      | Dr. R. J. Anandhi                                                       | ONLINE             |

## **MINUTES OF THE MEETING**

Welcome address by the Principal of NHCE. The Principal of the college formally welcomed all the members and informed them that the meeting is being conducted in blended mode (offline & online). Also, welcomed VTU nominees: Dr. Shadashive Gowda and Dr. Shivyoginath. The member secretary extended hearty welcome to Honorable Chairman for his support. The Principal requested Dean Academics to present the ACM agenda to all ACM members.

### **AGENDA 1**

#### **Discussion of Scheme of Study for 2nd year, 3rd year and final year UG Programs for the AY 2024-25 based on VTU guidelines**

##### **A) VTU Salient Features incorporated in 2021-25 batch scheme:**

- Scientific Foundations of Health is introduced in 7th semester to motivate the students towards a healthier and fit lifestyle.
- Project work and Internship credits have been increased to 12 credits to give more weightage for project-based learning.
- Technical seminar is introduced in 8th semester to facilitate the knowledge about latest technological developments in the respective field of study.
- Interdisciplinary projects are incorporated from 6th semester onwards to encourage students to develop new ideas and products. This will help the students to work in a multi-disciplinary environment.

##### **B) VTU Salient Features incorporated in 2022-26 batch scheme:**

- AEC courses introduced in 6th semesters depending upon current market requirements and upcoming technologies.
- Critical and Creative Thinking Skills and Problem-Solving Skills are introduced as AEC courses in 5th and 6th semester common to all branches to introduce the students to industry needs and make them industry ready.
- Competitive Coding is added as PEC for ECE, EEE and ME branches in 5th semester to make students familiar with programming language.
- Yoga / NSS / Physical Education as mandatory course (0 Credits) introduced in 3<sup>rd</sup> Sem to be continued for 5<sup>th</sup> and 6th semester.
- Research Methodology and IPR (1:1:0:0) course introduced in 5th Semester.
- Different variants of HSMS course included in 5th Sem depending upon department requirement. Such as
  - Software Engineering and Project Management for AIML, CSE, CSE(DS), ISE, CE programs
  - Operations Research and Management for ECE, EEE and ME programs
- Interdisciplinary projects as Project Phase-I are incorporated from 6<sup>th</sup> semester onwards to encourage students to develop new ideas and products. This will help the students to work in a multi-disciplinary environment.

**C) Proposal and approval of schemes of UG programs:**

- Scheme & Syllabus for 2023-27 (3<sup>rd</sup> & 4<sup>th</sup> semester), 2022-26 (5<sup>th</sup> & 6<sup>th</sup> Semester) and 2021-25 (7<sup>th</sup> & 8<sup>th</sup> Semester) batches of AIML was proposed for approval by HOD-AIML
- Scheme & Syllabus for 2022-26 (5<sup>th</sup> & 6<sup>th</sup> Semester) and 2021-25 (7<sup>th</sup> & 8<sup>th</sup> Semester) batches of CE was proposed for approval by HOD-CE
- Scheme & Syllabus 2021-25 (7<sup>th</sup> & 8<sup>th</sup> Semester) batches of CIVIL was proposed for approval by HOD(In-charge)-CIVIL
- Scheme & Syllabus for 2023-27 (3<sup>rd</sup> & 4<sup>th</sup> semester), 2022-26 (5<sup>th</sup> & 6<sup>th</sup> Semester) and 2021-25 (7<sup>th</sup> & 8<sup>th</sup> Semester) batches of CSE was proposed for approval by HOD-CSE
- Scheme & Syllabus for 2023-27 (3<sup>rd</sup> & 4<sup>th</sup> semester) and 2022-26 (5<sup>th</sup> & 6<sup>th</sup> Semester) batches of CSE (DS) was proposed for approval by HOD-CSE(DS)
- Scheme & Syllabus for 2023-27 (3<sup>rd</sup> & 4<sup>th</sup> semester), 2022-26 (5<sup>th</sup> & 6<sup>th</sup> Semester) and 2021-25 (7<sup>th</sup> & 8<sup>th</sup> Semester) batches of ISE was proposed for approval by HOD-ISE
- Scheme & Syllabus for 2023-27 (3<sup>rd</sup> & 4<sup>th</sup> semester), 2022-26 (5<sup>th</sup> & 6<sup>th</sup> Semester) and 2021-25 (7<sup>th</sup> & 8<sup>th</sup> Semester) batches of ECE was proposed for approval by HOD-ECE
- Scheme & Syllabus for 2023-27 (3<sup>rd</sup> & 4<sup>th</sup> semester), 2022-26 (5<sup>th</sup> & 6<sup>th</sup> Semester) and 2021-25 (7<sup>th</sup> & 8<sup>th</sup> Semester) batches of EEE was proposed for approval by HOD-EEE
- Scheme & Syllabus for 2023-27 (3<sup>rd</sup> & 4<sup>th</sup> semester), 2022-26 (5<sup>th</sup> & 6<sup>th</sup> Semester) and 2021-25 (7<sup>th</sup> & 8<sup>th</sup> Semester) batches of MEE was proposed for approval by HOD(In-charge)-ME
- All proposed Scheme and Syllabus for 2023-27, 2022-26 & 2021-25 batch approved by all members.

**AGENDA 2**

**Discussion of Scheme of Study for 1st year UG Program for the AY 2024-25 based on VTU guidelines**

**AGENDA-3**

**Proposal and approval of scheme of study for PG programs for the AY 2024-25**

- General Scheme for 1<sup>st</sup> year for 2024-25 batch was discussed in details. The following points were discussed:
- MCA 1<sup>st</sup> Year Changes for 2024- 2026 batch:
  - The credits are changed from 100 to 80.
  - Number of POs is changed to 8 POs.
  - Foundation mathematics for computer applications (24MATC19) is introduced in 1st semester, which is a bridge Course. It is a Non-Credit Mandatory Course for

students who have not taken Mathematics at the 10+2 or degree level are required to study and pass this course in the 1st semester.

- Lab based professional elective for (0:2:1) is introduced in 2nd semester to improve the programming skills of the students.
- General Scheme for MBA 2<sup>nd</sup> year for 2024-25 batch was discussed in details. The following points were discussed:
  - New electives based on Artificial Intelligence & Data Science are introduced which includes the following courses in 3rd and 4th semester:
    - Python Programming for Business Managers
    - Introduction to Structured Query Language
    - Generative AI in Data Analytics for Managers
    - Machine Learning in Management
    - Data Visualization Using Tableau and Story Telling
    - Statistical Modeling Using R
    - Text and Social Media Analytics
    - Predictive Analytics Using Artificial Intelligence
  - Societal Project (one week) is mandatory for all the students and this has to be carried out after the second semester during vacation and the report should be submitted by the students and should be assessed internally during the third semester and it is a non-credit but mandatory course (Audit Course).
  - Students should compulsorily register for the MOOC Course (NPTEL Swayam) during 3rd semester and attend the exam and submit the certificate. The evaluation will be carried out during fourth semester.
  - Dissertation -23MBA43 (twelve weeks) to be carried out by students after third semester and the report should be submitted by the students during the fourth semester and is to be assessed internally during the fourth semester.

#### **AGENDA-4**

#### **Proposed reforms in Teaching and Learning processes and evaluation process**

**The following exam reforms were presented by Dean-Academics:**

- Preparing a question bank with a structured approach ensures comprehensive coverage of the syllabus, fairness in assessment, and alignment with learning objectives. This QB will be used for CIE examinations.
- Department BOE needs to scrutinize the QB, as per the schedule of COE, every semester.
- One credit theory course will have both objective and descriptive pattern, with 25 marks each.
- One credit Lab courses will have two hours of examination.
- All industry labs based open elective question paper will be sent from Controller of Examination office. (Departments to submit the Question bank and QP format)
- Continuous Internal Evaluation – IA component

- There will be only 2 compulsory Internal assessment tests instead of 3, and each will be conducted for 50 marks with duration of 2 hours.
- The first test will be administered after 40-50% of the syllabus has been covered, and the second test will be administered after 85-90% of the syllabus has been covered
- For the course, CIE marks will be scaled-down marks to 25.
- Continuous Internal Evaluation – Alternate assessment component: Department BOS needs to decide on the alternate assessments given in the list by Office of Dean Academics, which is suitable for a respective course, with a total weightage of 25 marks.
- The sample structure of the question bank was also presented.

### **AGENDA-5**

#### **Result analysis of VIII Semester BE**

- The result analysis of 8<sup>th</sup> semester was presented by COE and the improvement strategies were discussed.

### **AGENDA-6**

#### **Value Added Programs**

- The status of value-added program conducted for passed out batch of 2020 – 2024 was presented by Principal Sir
- The new certification-based value-added courses for upcoming batch 2024-2028 were presented and approved by all members.

| Domain Specialization           | Technology Course 1<br>(Foundation) (60hrs)                     | Technology Course 2<br>(Advanced) (60hrs)                                | Job Opportunities                                                                                             |
|---------------------------------|-----------------------------------------------------------------|--------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
|                                 | Industry Certification Training +Exam<br>( in 4 and 5 Semester) | Training for Industry Certification<br>(in 6 and 7 Semester)             |                                                                                                               |
| DevOps                          | Microsoft Certified:<br>Azure Developer Associate               | Microsoft certified<br>Designing and<br>Implementing DevOps<br>Solutions | DevOps Engineer in MNC like<br>GoldmannSachs, Altran, Seimens,<br>Capgemini Technology Services, TCS,<br>HCL  |
| Ethical Hacking<br>and Forensic | EC-Council Certified<br>Ethical Hacker (CEH)                    | Forensic Investigator<br>Certification                                   | Security Architect, Chief Information<br>Security Officer (CISO), Security<br>Analyst, Cyber Security Lead in |

|                                                                       |                                                                                                                              |                                                                                              |                                                                                                                                                                                                               |
|-----------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Investigator                                                          |                                                                                                                              |                                                                                              | Applied Systems<br>General Motors, Sony Electronics,<br>Verizon                                                                                                                                               |
| Tableau                                                               | Tableau Desktop<br>Specialist                                                                                                | Tableau Certified Data<br>Analyst                                                            | Data Analyst, Data Scientist,<br>Business Analyst, Business<br>Intelligence Analyst, Business<br>Intelligence Developer, Business<br>Intelligence Manager in KPMG<br>Deloitte, IBM, Wells Fargo,<br>Accenture |
| AWS Cloud<br>Architect                                                | AWS Certified Cloud<br>Practitioner                                                                                          | AWS Certified Solutions<br>Architect                                                         | AWS Cloud Architect in Wipro,<br>Infosys, MindTree                                                                                                                                                            |
| Full Stack<br>Development                                             | IBM Full Stack Software Developer Professional<br>Certificate                                                                |                                                                                              | Full Stack Developer, Software<br>Engineer, Automation Engineer in<br>MNC                                                                                                                                     |
| Front End<br>Verification of<br>Digital VLSI<br>Design                | System Verilog training<br>& Coursera Certification<br>Program                                                               | Universal Verification<br>Methodology (UVM)<br>training                                      | System Verilog Engineer, SoC<br>Engineer, Design Verification<br>Engineer in Intel                                                                                                                            |
| Embedded<br>Systems<br>Essentials with<br>Arm and IoT<br>Applications | ARM Certification<br>Embedded Systems<br>Essentials with ARM:<br>Getting Started                                             | ARM Certification<br>Embedded Systems<br>Essentials with Arm: Get<br>Practical with Hardware | Embedded Software Engineer,<br>Embedded Test Engineer, ARM<br>Embedded Designer, ARM<br>Embedded Developer                                                                                                    |
| Digital<br>Manufacturing<br>Technologies                              | Indian Machine Tools<br>Association (IMTMA)<br>Certification on<br>Manufacturing<br>Technology, Trinity NDT<br>Certification | Bosch Certification on<br>Autotronics                                                        | Robotics Engineer, Mechanical<br>Design Engineer, System & Solution<br>Engineer-Manufacturing Solution                                                                                                        |

## **AGENDA-7**

### **Research and Development Programs**

- ❖ The research related activity done during AY 2023-24 was presented by

Dean R&D.

- ❖ Discussion on patent publication and grant regulations were discussed for AY 2024-25. The final rules and regulations for AY 2024-25 will be published cadre wise by R&D department as soon as possible.
- ❖ Patent marks to be added for self-appraisal in HRMS

## **AGENDA-8**

### **Skill Development activities**

- ❖ The skill development activities done by Skill Development Centre for AY 2023-24 was presented by Director SDC.
- ❖ Action plan for AY 2024-25 by SDC were presented as:
  - High impact teaching skills and high impact presentation skills on the lines of a Dale Carnegie program for the staff members.
  - An on – job training for the security guards will be conducted.
  - The knowledge sharing series will continue to provide platforms to any faculty member who would attend FDPs and then share that acquired knowledge with the teaching community.
  - Company specific training to make students industry – ready will continue.
  - Corporate exposure to students will be provided through their participation in the events organized by them.

## **AGENDA-9**

### **English/Language Lab Details**

- The Activities related to Language lab which was establish in Digital Library in April 2024 activities done by Skill Development Centre for AY 2023-24 was presented by Director SDC.
- The Language Lab has undergone significant developments from April to July 2024:
  - Experimental Phase and testing
    - Software Purchase and Testing
      - Diagnostic Test- 16/4/24 and 18/4/24
      - Classes Commenced for around 60 students
    - Resolutions

- Software Updated to the latest Version by 25/6/24
- Operational Issues Rectified
- Teacher Training
- Present Status
  - Teaching assistants, guided by Mr. Kevin George (Life skill Trainer), have been supporting the operations
  - French Study Abroad Students are given access to the link and registered
  - Classes Commenced for 3 sections of MBA
  - MCA students' classes are scheduled to start from 31 July 2024

#### **AGENDA-10**

**Any other points with approval of Chairman.**

The proposed regulations were approved by all BOS members.

#### **AGENDA-11**

**Any other points with Approval of Chairman**

- The principal informed all the members the plan for AY 2024-25

#### **Vote of Thanks by Member Secretary**

The Dean Academics-Member Secretary of the Academic Council thanked all the members of ACM for active participation in designing of scheme and syllabus for 2023-27, 2022-2026 batch and 2021-25 batch for AY 2024-2025. She thanked the VTU nominees: Dr. Shadashive Gowda and Dr. Shivyoginath for their valuable suggestions. She also thanked the experts: Mr. Sandeep Jain, Founder & CEO, Geeks for Geeks, Mr. Ananthamani, Vice President – PLM & Mech/Elec, Capgemini Engineering and Dr. K N Subramanya, Principal, R V College of Engineering. She also expressed her heartfelt thanks to Honorable Chairman and Principal for their support.

  
Dean-Academics

  
Principal

# NEW HORIZON COLLEGE OF ENGINEERING

## B. E. in \_\_\_\_\_

### Scheme of Teaching and Examinations for 2023- 2027 BATCH (2022 Scheme)

| III Semester |                        |                     |                                        |                             |                               |   |   |   |                 |               |       |         |           |
|--------------|------------------------|---------------------|----------------------------------------|-----------------------------|-------------------------------|---|---|---|-----------------|---------------|-------|---------|-----------|
| S. No.       | Course and Course Code |                     | Course Title                           | BoS                         | Credit Distribution           |   |   |   | Overall Credits | Contact Hours | Marks |         |           |
|              |                        |                     |                                        |                             | L                             | T | P | S |                 |               | CIE   | SEE     | Total     |
| 1            | BSC                    | 22MAC31/<br>22MAE31 |                                        | BS                          | 3                             | 0 | 0 | 0 | 3               | 3             | 50    | 50      | 100       |
| 2            | PCC                    | 22XXX32             |                                        | XX                          | 3                             | 0 | 0 | 0 | 3               | 3             | 50    | 50      | 100       |
| 3            | PCCL                   | 22XXL32             |                                        | XX                          | 0                             | 0 | 1 | 0 | 1               | 2             | 50    | 50      | 100       |
| 4            | PCC                    | 22XXX33             |                                        | XX                          | 3                             | 0 | 0 | 0 | 3               | 3             | 50    | 50      | 100       |
| 5            | PCCL                   | 22XXL33             |                                        | XX                          | 0                             | 0 | 1 | 0 | 1               | 2             | 50    | 50      | 100       |
| 6            | ESC                    | 22XXX34X            | ESC/ ETC/ PLC (2:0:1:0)                | XX                          | 3                             | 0 | 0 | 0 | 3               | 3             | 50    | 50      | 100       |
| 7            | AEC                    | 22XXX35X            | Ability Enhancement Course – III       | XX                          | If the course is a Theory     |   |   |   |                 |               | 50    | 50      | 100       |
|              |                        |                     |                                        |                             | 1                             | 0 | 0 | 0 | 1               | 1             |       |         |           |
|              |                        |                     |                                        |                             | If the course is a Laboratory |   |   |   |                 |               |       |         |           |
|              |                        |                     |                                        |                             | 0                             | 0 | 1 | 0 | 1               | 2             |       |         |           |
| 8            | BSC                    | 22BIK36             | Bio Inspired Design and Innovation     | Any Dept                    | 3                             | 0 | 0 | 0 | 3               | 3             | 50    | 50      | 100       |
| 9            | UHV                    | 22SCK37             | Social Connect and Responsibility      | Any Dept                    | 0                             | 0 | 1 | 0 | 1               | 2             | 50    | --      | 50        |
|              |                        | OR                  |                                        |                             |                               |   |   |   |                 |               |       |         |           |
|              |                        | 22UHK37             | Universal Human Values and Life Skills | Any Dept                    | 1                             | 0 | 0 | 0 | 1               | 2             | 50    | 50      | 100       |
| 10           | NCMC                   | 22NSS30             | National Service Scheme                | NSS coordinator             | 0                             | 0 | 0 | 0 | 0               | 2             | 50    | --      | 50        |
|              |                        | 22PED30             | Physical Education and Sports          | Physical Education Director |                               |   |   |   |                 |               |       |         |           |
|              |                        | 22YOG30             | Yoga                                   | Yoga Teacher                |                               |   |   |   |                 |               |       |         |           |
| Total        |                        |                     |                                        |                             |                               |   |   |   | 19              | 24/25         | 450   | 400/450 | 900 / 950 |

|    |      |           |                              |    |   |   |   |   |   |   |    |    |    |
|----|------|-----------|------------------------------|----|---|---|---|---|---|---|----|----|----|
| 11 | NCMC | 22DMAT31* | Basic Applied Mathematics -I | BS | 0 | 0 | 0 | 0 | 0 | 2 | 50 | -- | 50 |
|----|------|-----------|------------------------------|----|---|---|---|---|---|---|----|----|----|

Shandhi  
5/6/24

Mayank  
5/6/2024

**BSC:** Basic Science Course, **PCC:** Professional Core Course, **PCCL:** Professional Core Course laboratory, **UHV:** Universal Human Value Course, **NCMC:** Non-Credit Mandatory Course, **AEC:** Ability Enhancement Course, **L:** Lecture, **T:** Tutorial, **P:** Practical **S:** **SDA:** Self Study for Skill Development, **K:** This letter in the course code indicates common to all the stream of engineering. **ESC:** Engineering Science Course, **ETC:** Emerging Technology Course, **PLC:** Programming Language Course, **CIE:** Continuous Internal Evaluation, **SEE:** Semester End Evaluation

**22DMAT311\*:** This non-credit mandatory course to be offered with only CIE and no SEE to Lateral entry students.

| Engineering Science Course / Emerging Technology Course / Programming Language Course (ESC/ETC/PLC) |  |          |                                    |
|-----------------------------------------------------------------------------------------------------|--|----------|------------------------------------|
| 22XXX341                                                                                            |  | 22XXX344 |                                    |
| 22XXX342                                                                                            |  | 22XXX345 |                                    |
| 22XXX343                                                                                            |  | 22XXX346 | If department wants add new course |

| Ability Enhancement Course – III (For IT allied Branches, all are Laboratory Courses 0-0-1-0) (Other branches can have 1-0-0-0 or 0-0-1-0) |  |          |                                    |
|--------------------------------------------------------------------------------------------------------------------------------------------|--|----------|------------------------------------|
| 22XXX351                                                                                                                                   |  | 22XXX354 |                                    |
| 22XXX352                                                                                                                                   |  | 22XXX355 |                                    |
| 22XXX353                                                                                                                                   |  | 22XXX356 | If department wants add new course |

**National Service Scheme /Physical Education/Yoga:** All students have to register for any one of the courses namely National Service Scheme (NSS), Physical Education(PE) (Sports and Athletics), and Yoga (YOG) with the concerned coordinator of the course during the first week of III semesters. Activities shall be carried out between III semester to the VI semester (for 4 semesters). Successful completion of the registered course and requisite CIE score is mandatory for the award of the degree. The events shall be appropriately scheduled by the colleges and the same shall be reflected in the calendar prepared for the NSS, PE, and Yoga activities. These courses shall not be considered for vertical progression as well as for the calculation of SGPA and CGPA, but completion of the course is mandatory for the award of degree.

**Credit Definition:**

1-hour Lecture (L) per week=1Credit  
 2-hours Tutorial(T) per week=1Credit  
 2-hours Practical / Drawing (P) per week=1Credit  
 2-hous Self Study for Skill Development (SDA)  
 per week = 1 Credit

03-Credits courses are to be designed for 40 hours in Teaching-Learning Session  
 02- Credits courses are to be designed for 25 hours of Teaching-Learning Session  
 01-Credit courses are to be designed for 15 hours of Teaching-Learning Sessions

*M. S. Srinivas*  
 5/6/2024

## NEW HORIZON COLLEGE OF ENGINEERING

B. E. in \_\_\_\_\_

## Scheme of Teaching and Examinations for 2023- 2027 BATCH (2022 Scheme)

| IV Semester |                        |                     |                                        |                             |                               |   |   |   |                 |               |       |             |               |
|-------------|------------------------|---------------------|----------------------------------------|-----------------------------|-------------------------------|---|---|---|-----------------|---------------|-------|-------------|---------------|
| S. No.      | Course and Course Code |                     | Course Title                           | BoS                         | Credit Distribution           |   |   |   | Overall Credits | Contact Hours | Marks |             |               |
|             |                        |                     |                                        |                             | L                             | T | P | S |                 |               | CIE   | SEE         | Total         |
| 1           | BSC                    | 22MAC41/<br>22MAE41 |                                        | BS                          | 3                             | 0 | 0 | 0 | 3               | 3             | 50    | 50          | 100           |
| 2           | PCC                    | 22XXX42             |                                        | XX                          | 3                             | 0 | 0 | 0 | 3               | 3             | 50    | 50          | 100           |
| 3           | PCCL                   | 22XXL42             |                                        | XX                          | 0                             | 0 | 1 | 0 | 1               | 2             | 50    | 50          | 100           |
| 4           | PCC                    | 22XXX43             |                                        | XX                          | 3                             | 0 | 0 | 0 | 3               | 3             | 50    | 50          | 100           |
| 5           | PCCL                   | 22XXL43             |                                        | XX                          | 0                             | 0 | 1 | 0 | 1               | 2             | 50    | 50          | 100           |
| 6           | PCC                    | 22XXX44             |                                        | XX                          | 3                             | 0 | 0 | 0 | 3               | 3             | 50    | 50          | 100           |
| 7           | PCCL                   | 22XXL44             |                                        | XX                          | 0                             | 0 | 1 | 0 | 1               | 2             | 50    | 50          | 100           |
| 8           | ESC                    | 22XXX45X            | ESC/ETC/PLC (2:0:1:0)                  | XX                          | 3                             | 0 | 0 | 0 | 3               | 3             | 50    | 50          | 100           |
| 9           | AEC                    | 22XXX46X            | Ability Enhancement Course – IV        | XX                          | If the course is a Theory     |   |   |   |                 |               | 50    | 50          | 100           |
|             |                        |                     |                                        |                             | 1                             | 0 | 0 | 0 | 1               | 1             |       |             |               |
|             |                        |                     |                                        |                             | If the course is a Laboratory |   |   |   |                 |               |       |             |               |
| 10          | UHV                    | 22UHK47             | Universal Human Values and Life Skills | Any Dept                    | 1                             | 0 | 0 | 0 | 1               | 2             | 50    | 50          | 100           |
|             |                        | OR                  |                                        |                             |                               |   |   |   |                 |               |       |             |               |
|             |                        | 22SCK47             | Social Connect and Responsibility      | Any Dept                    | 0                             | 0 | 1 | 0 | 1               | 2             | 50    | –           | 50            |
| 11          | PROJ                   | 22XXX48             | Mini Project                           | XX                          | 0                             | 0 | 1 | 0 | 1               | 0             | 50    | 50          | 100           |
| 12          | NCMC                   | 22NSS40             | National Service Scheme                | NSS coordinator             | 0                             | 0 | 0 | 0 | 0               | 2             | 50    | --          | 50            |
|             |                        | 22PED40             | Physical Education and Sports          | Physical Education Director |                               |   |   |   |                 |               |       |             |               |
|             |                        | 22YOG40             | Yoga                                   | Yoga Teacher                |                               |   |   |   |                 |               |       |             |               |
| Total       |                        |                     |                                        |                             |                               |   |   |   | 21              | 26/27         | 600   | 500/<br>450 | 1100/<br>1050 |
| 13          | NCMC                   | 22DMAT41*           | Basic Applied Mathematics-II           | BS                          | 0                             | 0 | 0 | 0 | 0               | 2             | 50    | --          | 50            |

Chandni  
5/6/24

Mangrath  
5/6/2024 Page 3 of 5

**BSC:** Basic Science Course, **PCC:** Professional Core Course, **PCCL:** Professional Core Course laboratory, **UHV:** Universal Human Value Course, **NCMC:** Non-Credit Mandatory Course, **AEC:** Ability Enhancement Course, **PROJ:** Mini Project work, **L:** Lecture, **T:** Tutorial, **P:** Practical **S:** SDA: Self Study for Skill Development, **K:** This letter in the course code indicates common to all the stream of engineering. **ESC:** Engineering Science Course, **ETC:** Emerging Technology Course, **PLC:** Programming Language Course, **CIE:** Continuous Internal Evaluation, **SEE:** Semester End Evaluation.

**22DMAT41\*:** This non-credit mandatory course to be offered with only CIE and no SEE to Lateral entry students.

| Engineering Science Course / Emerging Technology Course / Programming Language Course (ESC/ETC/PLC) |  |          |                                    |
|-----------------------------------------------------------------------------------------------------|--|----------|------------------------------------|
| 22XXX451                                                                                            |  | 22XXX454 |                                    |
| 22XXX452                                                                                            |  | 22XXX455 |                                    |
| 22XXX453                                                                                            |  | 22XXX456 | If department wants add new course |

| Ability Enhancement Course – IV (For IT allied Branches, all are Laboratory Courses 0-0-1-0) (Other branches can have 1-0-0-0 or 0-0-1-0) |  |          |                                    |
|-------------------------------------------------------------------------------------------------------------------------------------------|--|----------|------------------------------------|
| 22XXX461                                                                                                                                  |  | 22XXX464 |                                    |
| 22XXX462                                                                                                                                  |  | 22XXX465 |                                    |
| 22XXX463                                                                                                                                  |  | 22XXX466 | If department wants add new course |

**Mini-project work:** Mini Project is a laboratory-oriented/hands on course that will provide a platform to students to enhance their practical knowledge and skills by the development of small systems/applications etc. Based on the ability/abilities of the student/s and recommendations of the mentor. A student can do mini project as

- (i) A group of 2 if mini project work is single discipline (applicable to all IT allied branches)
- (ii) A group of 2- 4 if mini project work is single discipline (applicable to all Core Branches)
- (iii) A group of 2 - 4 students if the Mini Project work is a multidisciplinary (Applicable to all Branches)

**CIE procedure for Mini-project:**

(i) **Single discipline:** The CIE marks shall be awarded by a committee consisting of the Head of the concerned Department and two faculty members of the Department, one of them being the Guide. The CIE marks awarded for the Mini-project work shall be based on the evaluation of the project report, project presentation skill, and question and answer session in the ratio of 50:25:25. The marks awarded for the project report shall be the same for all the batches mates.

(ii) **Interdisciplinary:** Continuous Internal Evaluation shall be group-wise at the college level with the participation of all the guides of the project.

The CIE marks awarded for the Mini-project, shall be based on the evaluation of the project report, project presentation skill, and question and answer session in the percentage ratio of 50:25:25. The marks awarded for the project report shall be the same for all the batch mates

**National Service Scheme /Physical Education/Yoga:** All students have to register for any one of the courses namely National Service Scheme (NSS), Physical Education (PE) (Sports and Athletics), and Yoga (YOG) with the concerned coordinator of the course during the first week of III semesters. Activities shall be carried out between III semester to the VI semester (for 4 semesters). Successful completion of the registered course and requisite CIE score is mandatory for the award of the degree. The events shall be appropriately scheduled by the colleges and the same shall be reflected in the calendar prepared for the NSS, PE, and Yoga activities. These courses shall not be considered for vertical progression as well as for the calculation of SGPA and CGPA, but completion of the course is mandatory for the award of degree.

**Credit Definition:**

1-hour Lecture (L) per week=1Credit  
 2-hours Tutorial (T) per week=1Credit  
 2-hours Practical / Drawing (P) per week=1Credit  
 2-hous Self Study for Skill Development (SDA) per week  
 = 1 Credit

03-Credits courses are to be designed for 40 hours in Teaching-Learning Session  
 02- Credits courses are to be designed for 25 hours of Teaching-Learning Session  
 01-Credit courses are to be designed for 15 hours of Teaching-Learning Sessions

*Manjith*  
 5/6/2024

## NEW HORIZON COLLEGE OF ENGINEERING

B. E. in \_\_\_\_\_

## Scheme of Teaching and Examinations for 2022- 2026 BATCH (2022 Scheme)

| V Semester |                        |          |                                                |                             |                     |   |   |   |                 |               |       |     |       |
|------------|------------------------|----------|------------------------------------------------|-----------------------------|---------------------|---|---|---|-----------------|---------------|-------|-----|-------|
| S. No.     | Course and Course Code |          | Course Title                                   | BoS                         | Credit Distribution |   |   |   | Overall Credits | Contact Hours | Marks |     |       |
|            |                        |          |                                                |                             | L                   | T | P | S |                 |               | CIE   | SEE | Total |
| 1          | HSMS                   | 22XXX51  | Please refer the guidelines                    | XX                          | 3                   | 0 | 0 | 0 | 3               | 3             | 50    | 50  | 100   |
| 2          | PCC                    | 22XXX52  |                                                | XX                          | 3                   | 0 | 0 | 0 | 3               | 3             | 50    | 50  | 100   |
| 3          | PCCL                   | 22XXL52  |                                                | XX                          | 0                   | 0 | 1 | 0 | 1               | 2             | 50    | 50  | 100   |
| 4          | PCC                    | 22XXX53  |                                                | XX                          | 3                   | 0 | 0 | 0 | 3               | 3             | 50    | 50  | 100   |
| 5          | PCCL                   | 22XXL53  |                                                | XX                          | 0                   | 0 | 1 | 0 | 1               | 2             | 50    | 50  | 100   |
| 6          | PEC                    | 22XXX54X | Professional Elective Course-I                 | XX                          | 3                   | 0 | 0 | 0 | 3               | 3             | 50    | 50  | 100   |
| 7          | AEC                    | 22RMK55  | Research Methodology and IPR                   | XX                          | 2                   | 0 | 0 | 0 | 2               | 2             | 50    | 50  | 100   |
| 8          | AEC                    | 22SDK56  | Critical and Creative Thinking Skills          | XX                          | 0                   | 0 | 1 | 0 | 1               | 2             | 50    | --  | 50    |
| 9          | UHV                    | 22ESK57  | Environmental Studies                          | Any Dept                    | 1                   | 0 | 0 | 0 | 1               | 1             | 50    | 50  | 100   |
| 10         | PROJ                   | 22XXX58  | Mini Project                                   | XX                          | 0                   | 0 | 1 | 0 | 1               | 0             | 50    | 50  | 100   |
| 11         | NCMC                   | 22NSK50  | National Service Scheme (NSS)                  | NSS coordinator             | 0                   | 0 | 0 | 0 | 0               | 2             | 50    | --  | 50    |
|            |                        | 22PEK50  | Physical Education (PE) (Sports and Athletics) | Physical Education Director |                     |   |   |   |                 |               |       |     |       |
|            |                        | 22YOK50  | Yoga                                           | Yoga Teacher                |                     |   |   |   |                 |               |       |     |       |
| Total      |                        |          |                                                |                             |                     |   |   |   | 19              | 23            | 550   | 450 | 1000  |

Chandni  
5/6/24

Mangrath  
5/6/2024

**PCC:** Professional Core Course, **PCCL:** Professional Core Course laboratory, **UHV:** Universal Human Value Course, **NCMC:** Non-Credit Mandatory Course, **AEC:** Ability Enhancement Course, **PEC:** Professional Elective Course, **PROJ:** Mini Project work **L:** Lecture, **T:** Tutorial, **P:** Practical **S:** SDA: Self Study for Skill Development, **CIE:** Continuous Internal Evaluation, **SEE:** Semester End Evaluation

| Professional Elective Course-I |  |          |  |
|--------------------------------|--|----------|--|
| 22XXX541                       |  | 22XXX544 |  |
| 22XXX542                       |  | 22XXX545 |  |
| 22XXX543                       |  |          |  |

**22XXX51(HSMS)**- This course must be pertaining to economics and management of the concerned degree program. The course syllabus should have both economics and management topics and the course title should bear the word Management.

**For IT allied Branches:** Software Product Management

**For Core Branches:** Engineering Economics and Management / Industrial Management and Entrepreneurship

**Mini-project work:** Mini Project is a laboratory-oriented/hands on course that will provide a platform to students to enhance their practical knowledge and skills by the development of small systems/applications etc. Based on the ability/abilities of the student/s and recommendations of the mentor. A student can do mini project as

- (i) A group of 2 if mini project work is single discipline (applicable to all IT allied branches)
- (ii) A group of 2- 4 if mini project work is single discipline (applicable to all Core Branches)
- (iii) A group of 2 - 4 students if the Mini Project work is a multidisciplinary (Applicable to all Branches)

**CIE procedure for Mini-project:**

(i) **Single discipline:** The CIE marks shall be awarded by a committee consisting of the Head of the concerned Department and two faculty members of the Department, one of them being the Guide. The CIE marks awarded for the Mini-project work shall be based on the evaluation of the project report, project presentation skill, and question and answer session in the ratio of 50:25:25. The marks awarded for the project report shall be the same for all the batches mates.

(ii) **Interdisciplinary:** Continuous Internal Evaluation shall be group-wise at the college level with the participation of all the guides of the project.

The CIE marks awarded for the Mini-project, shall be based on the evaluation of the project report, project presentation skill, and

*May 16/2024*

## Scheme General Structure

question and answer session in the percentage ratio of 50:25:25. The marks awarded for the project report shall be the same for all the batch mates.

**Professional Elective Courses (PEC):** A professional elective (PEC) course is intended to enhance the depth and breadth of educational experience in the Engineering and Technology curriculum. Multidisciplinary courses can be added to supplement the latest trend and advanced technology in the selected stream of engineering.

**National Service Scheme /Physical Education/Yoga:** All students have to register for any one of the courses namely National Service Scheme (NSS), Physical Education(PE) (Sports and Athletics), and Yoga (YOG) with the concerned coordinator of the course during the first week of III semesters. Activities shall be carried out between III semester to the VI semester (for 4 semesters). Successful completion of the registered course and requisite CIE score is mandatory for the award of the degree. The events shall be appropriately scheduled by the colleges and the same shall be reflected in the calendar prepared for the NSS, PE, and Yoga activities. These courses shall not be considered for vertical progression as well as for the calculation of SGPA and CGPA, but completion of the course is mandatory for the award of degree.

### Credit Definition:

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2-hours Tutorial(T) per week=1Credit  
2-hours Practical / Drawing (P) per week=1Credit  
2-hous Self Study for Skill Development (SDA) per week  
= 1 Credit

03-Credits courses are to be designed for 40 hours in Teaching-Learning Session  
02- Credits courses are to be designed for 25 hours of Teaching-Learning Session  
01-Credit courses are to be designed for 15 hours of Teaching-Learning Sessions

*May 16/2024*

# NEW HORIZON COLLEGE OF ENGINEERING

B. E. in \_\_\_\_\_

Scheme of Teaching and Examinations for 2022- 2026 BATCH (2022 Scheme)

| VI Semester |                        |           |                                                |                             |                               |   |   |   |                 |               |       |     |       |
|-------------|------------------------|-----------|------------------------------------------------|-----------------------------|-------------------------------|---|---|---|-----------------|---------------|-------|-----|-------|
| S. No.      | Course and Course Code |           | Course Title                                   | BoS                         | Credit Distribution           |   |   |   | Overall Credits | Contact Hours | Marks |     |       |
|             |                        |           |                                                |                             | L                             | T | P | S |                 |               | CIE   | SEE | Total |
| 1           | PCC                    | 22XXX61   |                                                | XX                          | 3                             | 0 | 0 | 0 | 3               | 3             | 50    | 50  | 100   |
| 2           | PCCL                   | 22XXL61   |                                                | XX                          | 0                             | 0 | 1 | 0 | 1               | 2             | 50    | 50  | 100   |
| 3           | PCC                    | 22XXX62   |                                                | XX                          | 3                             | 0 | 0 | 0 | 3               | 3             | 50    | 50  | 100   |
| 4           | PCCL                   | 22XXL62   |                                                | XX                          | 0                             | 0 | 1 | 0 | 1               | 2             | 50    | 50  | 100   |
| 5           | PCC                    | 22XXX63   |                                                | XX                          | 3                             | 0 | 0 | 0 | 3               | 3             | 50    | 50  | 100   |
| 6           | PEC                    | 22XXX64X  | Professional Elective Course-II                | XX                          | 3                             | 0 | 0 | 0 | 3               | 3             | 50    | 50  | 100   |
| 7           | PROJ                   | 22XXX65   | Project Phase-I                                | XX                          | 0                             | 0 | 2 | 0 | 2               | 0             | 50    | 50  | 100   |
| 8           | AEC                    | 22SDK66   | Problem Solving Skills                         | XX                          | 0                             | 0 | 1 | 0 | 1               | 2             | 50    | --  | 50    |
| 9           | AEC                    | 22XXX67X  | Ability Enhancement Course – V                 | XX                          | If the course is a Theory     |   |   |   |                 |               | 50    | 50  | 100   |
|             |                        |           |                                                |                             | 1                             | 0 | 0 | 0 | 1               | 1             |       |     |       |
|             |                        |           |                                                |                             | If the course is a laboratory |   |   |   |                 |               |       |     |       |
|             |                        |           |                                                |                             | 0                             | 0 | 1 | 0 | 1               | 2             |       |     |       |
| 10          | OEC                    | 23NHOP6XX | Industrial Open Elective Course-I              | Offering Dept.              | 3                             | 0 | 0 | 0 | 3               | 3             | 50    | 50  | 100   |
| 11          | NCMC                   | 22NSK60   | National Service Scheme (NSS)                  | NSS coordinator             | 0                             | 0 | 0 | 0 | 0               | 2             | 50    | --  | 50    |
|             |                        | 22PEK60   | Physical Education (PE) (Sports and Athletics) | Physical Education Director |                               |   |   |   |                 |               |       |     |       |
|             |                        | 22YOK60   | Yoga                                           | Yoga Teacher                |                               |   |   |   |                 |               |       |     |       |
| Total       |                        |           |                                                |                             |                               |   |   |   | 21              | 24/25         | 550   | 450 | 1000  |

Abhandhi  
5/6/24.

May 16/2024

**PCC:** Professional Core Course, **PCCL:** Professional Core Course laboratory, **NCMC:** Non-Credit Mandatory Course, **AEC:** Ability Enhancement Course, **PEC:** Professional Elective Course, **OEC:** Open Elective Course, **PROJ:** Project work, **L:** Lecture, **T:** Tutorial, **P:** Practical **S:** SDA: Self Study for Skill Development, **CIE:** Continuous Internal Evaluation, **SEE:** Semester End Evaluation.

| Professional Elective Course-II |  |          |  |
|---------------------------------|--|----------|--|
| 22XXX641                        |  | 22XXX644 |  |
| 22XXX642                        |  | 22XXX645 |  |
| 22XXX643                        |  |          |  |

| Ability Enhancement Course – V |  |          |  |
|--------------------------------|--|----------|--|
| 22XXX671                       |  | 22XXX674 |  |
| 22XXX672                       |  | 22XXX675 |  |
| 22XXX673                       |  |          |  |

**Industrial Open Elective Courses-I:**

Credit for OEC is 03 (L: T: P: S) can be considered as (3: 0: 0 : 0). The teaching and learning of these Courses will be based on hands-on. The Course Assessment will be based on CIE and SEE in practical mode. This Courses will be offered by Centre of Excellence to students of all the branches. Registration to Industrial open electives shall be documented and monitored on college level.

**Project Phase-I:** Students have to discuss with the mentor /guide and with their help he/she has to complete the literature survey and prepare the report and finally define the problem statement for the project work.

**Professional Elective Courses (PEC):** A professional elective (PEC) course is intended to enhance the depth and breadth of educational experience in the Engineering and Technology curriculum. Multidisciplinary courses can be added to supplement the latest trend and

advanced technology in the selected stream of engineering.

**National Service Scheme /Physical Education/Yoga:** All students have to register for any one of the courses namely National Service Scheme (NSS), Physical Education(PE) (Sports and Athletics), and Yoga (YOG) with the concerned coordinator of the course during the first week of III semesters. Activities shall be carried out between III semester to the VI semester (for 4 semesters). Successful completion of the registered course and requisite CIE score is mandatory for the award of the degree. The events shall be appropriately scheduled by the colleges and the same shall be reflected in the calendar prepared for the NSS, PE, and Yoga activities. These courses shall not be considered for vertical progression as well as for the calculation of SGPA and CGPA, but completion of the course is mandatory for the award of degree.

**Credit Definition:**

1-hour Lecture (L) per week=1Credit  
2-hours Tutorial(T) per week=1Credit  
2-hours Practical / Drawing (P) per week=1Credit  
2-hous Self Study for Skill Development (SDA) per week =  
1 Credit

03-Credits courses are to be designed for 40 hours in Teaching-Learning Session

02- Credits courses are to be designed for 25 hours of Teaching-Learning Session

01-Credit courses are to be designed for 15 hours of Teaching-Learning Sessions

*May 16/2024*

## NEW HORIZON COLLEGE OF ENGINEERING

B. E. in \_\_\_\_\_

Scheme of Teaching and Examinations for 2021- 2025 BATCH (2021 Scheme)

Handwritten signature: *Shandis*  
 Date: 31/5/24

| VII Semester |                        |           |                                    |                |                     |   |    |   |                 |               |       |     |       |
|--------------|------------------------|-----------|------------------------------------|----------------|---------------------|---|----|---|-----------------|---------------|-------|-----|-------|
| S. No.       | Course and Course Code |           | Course Title                       | BoS            | Credit Distribution |   |    |   | Overall Credits | Contact Hours | Marks |     |       |
|              |                        |           |                                    |                | L                   | T | P  | S |                 |               | CIE   | SEE | Total |
| 1            | PCC                    | 21XXX71   |                                    | XX             | 3                   | 0 | 0  | 0 | 3               | 3             | 50    | 50  | 100   |
| 2            | PCC                    | 21XXX72   |                                    | XX             | 3                   | 0 | 0  | 0 | 3               | 3             | 50    | 50  | 100   |
| 3            | PROJ                   | 21XXX73   | Project Work                       | XX             | 0                   | 0 | 12 | 0 | 12              | 0             | 100   | 100 | 200   |
| 4            | AEC                    | 21XXK74   | Scientific Foundations of Health   | XX             | 1                   | 0 | 0  | 0 | 1               | 1             | 50    | 50  | 100   |
| 5            | OEC                    | 23NHOP7XX | Industrial Open Elective Course-II | Offering Dept. | 3                   | 0 | 0  | 0 | 3               | 3             | 50    | 50  | 100   |
| Total        |                        |           |                                    |                |                     |   |    |   | 22              | 10            | 300   | 300 | 600   |

**PCC:** Professional Core Course, **PCCL:** Professional Core Course laboratory, **PEC:** Professional Elective Course, **OEC:** Open Elective Course, **PROJ:** Project work, **L:** Lecture, **T:** Tutorial, **P:** Practical **S:** SDA: Self Study for Skill Development, **CIE:** Continuous Internal Evaluation, **SEE:** Semester End Evaluation.

|      |         |                                                |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|------|---------|------------------------------------------------|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| NCMC | 21NSS84 | National Service Scheme (NSS)                  | NSS coordinator             | <p>All students have to register for any one of the courses namely National Service Scheme, Physical Education (PE) (Sports and Athletics) and Yoga with the concerned coordinator of the course during the first week of V semester. The activities shall be carried out from (for 4 semesters) between V semester to VIII semester.</p> <p>SEE in the above courses shall be conducted during VIII semester examinations and the accumulated CIE marks shall be added to the SEE marks.</p> <p>Successful completion of the registered course is mandatory for the award of the degree.</p> <p>The events shall to be reflected in the calendar prepared for the NSS, PE and Yoga activities.</p> |
|      | 21PES84 | Physical Education (PE) (Sports and Athletics) | Physical Education Director |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|      | 21YOG84 | Yoga                                           | Yoga Teacher                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

## Scheme General Structure

**Industrial Open Elective Course (OEC):** Credit for OEC is 03 (L: T: P: S) can be considered as (3: 0: 0: 0). The teaching and learning of these Courses will be based on hands-on. The Course Assessment will be based on CIE and SEE in practical mode. This Courses will be offered by Centre of Excellence to students of all the branches. Registration to Industrial open electives shall be documented and monitored on college level.

### Project Work:

The objective of the Project work is

- (i) To encourage independent learning and the innovative attitude of the students.
- (ii) To develop interactive attitude, communication skills, organization, time management, and presentation skills.
- (iii) To impart flexibility and adaptability.
- (iv) To inspire team working.
- (v) To expand intellectual capacity, credibility, judgment and intuition.
- (vi) To adhere to punctuality, setting and meeting deadlines.
- (vii) To install responsibilities to oneself and others.
- (viii) To train students to present the topic of project work in a seminar without any fear, face the audience confidently, enhance communication skills, involve in group discussion to present and exchange ideas.

### CIE procedure for Project Work:

**(1) Single discipline:** The CIE marks shall be awarded by a committee consisting of the Head of the concerned Department and two senior faculty members of the Department, one of whom shall be the Guide.

The CIE marks awarded for the project work, shall be based on the evaluation of the project work Report, project presentation skill, and question and answer session in the percentage ratio of 50:25:25. The marks awarded for the project report shall be the same for all the batch mates.

**(2) Interdisciplinary:** Continuous Internal Evaluation shall be group-wise at the college level with the participation of all guides of the college. Participation of external guide/s, if any, is desirable. The CIE marks awarded for the project work, shall be based on the evaluation of project work Report, project presentation skill, and question and answer session in the percentage ratio of 50:25:25. The marks awarded for the project report shall be the same for all the batch mates.

**SEE procedure for Project Work:** The SEE marks awarded for the project work shall be based on the evaluation of project work Report, project presentation skill, and question and answer session in the percentage ratio of 50:25:25.

### Credit Definition:

1-hour Lecture (L) per week=1Credit  
2-hours Tutorial (T) per week=1Credit  
2-hours Practical / Drawing (P) per week=1Credit  
2-hous Self Study for Skill Development (SDA) per week = 1 Credit

03-Credits courses are to be designed for 40 hours in Teaching-Learning Session  
02- Credits courses are to be designed for 25 hours of Teaching-Learning Session  
01-Credit courses are to be designed for 15 hours of Teaching-Learning Sessions

**NEW HORIZON COLLEGE OF ENGINEERING****B. E. in \_\_\_\_\_****Scheme of Teaching and Examinations for 2021- 2025 BATCH (2021 Scheme)**

| VIII Semester |                        |          |                                                            |                             |                     |   |    |   |                 |               |     |     |       |
|---------------|------------------------|----------|------------------------------------------------------------|-----------------------------|---------------------|---|----|---|-----------------|---------------|-----|-----|-------|
| S. No.        | Course and Course Code |          | Course Title                                               | BoS                         | Credit Distribution |   |    |   | Overall Credits | Contact Hours | CIE | SEE | Total |
|               |                        |          |                                                            |                             | L                   | T | P  | S |                 |               |     |     |       |
| 1             | PEC                    | 21XXX81X | Professional Elective Course-III                           | XX                          | 3                   | 0 | 0  | 0 | 3               | 3             | 50  | 50  | 100   |
| 2             | SEM                    | 21XXX82  | Technical Seminar                                          | XX                          | 0                   | 0 | 1  | 0 | 1               | 0             | 50  | -   | 50    |
| 3             | INT                    | 21XXX83  | Research Internship/ Industry Internship /Rural Internship | XX                          | 0                   | 0 | 12 | 0 | 12              | 0             | 100 | 100 | 200   |
| 4             | NCMC                   | 21NSS84  | National Service Scheme (NSS)                              | NSS coordinator             | 0                   | 0 | 0  | 0 | 0               | 0             | 50  | 50  | 100   |
|               |                        | 21PES84  | Physical Education (PE) (Sports and Athletics)             | Physical Education Director |                     |   |    |   |                 |               |     |     |       |
|               |                        | 21YOG84  | Yoga                                                       | Yoga Teacher                |                     |   |    |   |                 |               |     |     |       |
| Total         |                        |          |                                                            |                             |                     |   |    |   | 16              | 3             | 250 | 200 | 450   |

**NCMC:** Non-Credit Mandatory Course, **AEC:** Ability Enhancement Course, **SEM:** Seminar, **INT:** Industry Internship / Research Internship / Rural Internship, **L:** Lecture, **T:** Tutorial, **P:** Practical **S:** SDA: Self Study for Skill Development, , **CIE:** Continuous Internal Evaluation, **SEE:** Semester End Evaluation.

| <b>Professional Elective Course-3</b> |  |          |  |
|---------------------------------------|--|----------|--|
| 21XXX811                              |  | 21XXX814 |  |
| 21XXX812                              |  | 21XXX815 |  |
| 21XXX813                              |  |          |  |

### Scheme General Structure

#### Elucidation:

**Research/Industry Internship** shall be carried out at an Industry, NGO, MSME, Innovation center, Incubation center, Start-up, center of Excellence (CoE), Study Centre established in the parent institute and /or at reputed research organizations/institutes.

The mandatory Research internship /Industry internship / Rural Internship is for **24 weeks**. The internship shall be considered as a head of passing and shall be considered for the award of a degree. Those, who do not take up/complete the internship shall be declared to fail and shall have to complete it during the subsequent SEE examination after satisfying the internship requirements.

**Research internship:** A research internship is intended to offer the flavor of current research going on in the research field. It helps students get familiarized with the field and imparts the skill required for carrying out research.

**Industry internship:** Is an extended period of work experience undertaken by students to supplement their degree for professional development. It also helps them learn to overcome unexpected obstacles and successfully navigate organizations, perspectives, and cultures. Dealing with contingencies helps students recognize, appreciate, and adapt to organizational realities by tempering their knowledge with practical constraints.

The faculty coordinator or mentor has to monitor the student's internship progress and interact with them to guide for the successful completion of the internship.

The students are permitted to carry out the internship anywhere in India or abroad. University shall not bear any expenses incurred in respect of the internship.

With the consent of the internal guide and Principal of the Institution, students shall be allowed to carry out the internship at their hometown (**within or outside the state or abroad**), provided favorable facilities are available for the internship and the student remains regularly in contact with the internal guide.

#### Non – credit mandatory courses (NCMC):

##### National Service Scheme/ Physical Education (Sport and Athletics)/ Yoga:

(1)Securing 40 % or more in CIE,35 % or more marks in SEE and 40 % or more in the sum total of CIE + SEE leads to successful completion of the registered course.

(2)In case, students fail to secure 35 % marks in SEE, they has to appear for SEE during the subsequent examinations conducted by the University.

(3)In case, any student fails to register for NSS, PE or Yoga / fails to secure the minimum 40 % of the prescribed CIE marks, he/she shall be deemed to have not completed the requirements of the course. In such a case, the student has to fulfill the course requirements during subsequently to earn the qualifying CIE marks subject to the maximum programme period.

(4)Successful completion of the course shall be indicated as satisfactory in the grade card. Non-completion of the course shall be indicated as Unsatisfactory.

(5)These courses shall not be considered for vertical progression as well as for the calculation of SGPA and CGPA, but completion of the courses shall be mandatory for the award of degree.

### Scheme General Structure

**TECHNICAL SEMINAR (21XXX81):** The objective of the seminar is to inculcate self-learning, present the seminar topic confidently, enhance communication skill, involve in group discussion for exchange of ideas. Each student, under the guidance of a Faculty, shall choose, preferably, a recent topic of his/her interest relevant to the programme of specialization.

- (i) Carry out literature survey, systematically organize the content.
- (ii) Prepare the report with own sentences, avoiding a cut and paste act.
- (iii) Type the matter to acquaint with the use of Micro-soft equation and drawing tools or any such facilities.
- (iv) Present the seminar topic through PowerPoint slides.
- (v) Answer the queries and involve in debate/discussion.
- (vi) Submit a typed report with a list of references.

The participants shall take part in the discussion to foster a friendly and stimulating environment in which the students are motivated to reach high standards and become self-confident.

#### **Evaluation Procedure:**

The CIE marks for the seminar shall be awarded (based on the relevance of the topic, presentation skill, participation in the question-and-answer session, and quality of report) by the committee constituted for the purpose by the Head of the Department. The committee shall consist of three teachers from the department with the senior-most acting as the Chairman.

#### **Marks distribution for CIE of the course:**

Seminar Report: 25 marks

Presentation skill: 10 marks

Technical Paper Publication: 15 marks.

Anandhi  
31/05/2024.

Mayur



## SCHEME OF TEACHING AND EXAMINATIONS OF I SEMESTER BE (EFFECTIVE FROM THE AY 2024-25)

| AIML/ ECE/DS/ME |                        |          |                                               |             |                     |   |   |   |                 | Chemistry Cycle |       |     |       |
|-----------------|------------------------|----------|-----------------------------------------------|-------------|---------------------|---|---|---|-----------------|-----------------|-------|-----|-------|
| S. No.          | Course and Course Code |          | Course Title                                  | BOS         | Credit Distribution |   |   |   | Overall Credits | Contact Hours   | Marks |     |       |
|                 |                        |          |                                               |             | L                   | T | P | S |                 |                 | CIE   | SEE | Total |
| 1               | ASC                    | 24MAT11  | Applied Mathematics for Engineers – I         | AS          | 2                   | 1 | 1 | 0 | 4               | 2+2+2           | 50    | 50  | 100   |
| 2               | ASC                    | 24CHE12  | Applied Chemistry for Engineers               | AS          | 3                   | 0 | 1 | 0 | 4               | 4+2             | 50    | 50  | 100   |
| 3               | ESC-I                  | 24ESC13* | Engineering Science Course – I                | Resp. Dept. | 3                   | 0 | 0 | 0 | 3               | 4               | 50    | 50  | 100   |
| 4               | PLC-I                  | 24PLC14* | Program Language Course -I                    | CS          | 2                   | 0 | 1 | 0 | 3               | 3+2             | 50    | 50  | 100   |
| 5               | ESC                    | 24CAD15  | Computer Aided Engineering Drawing.           | ME          | 2                   | 0 | 1 | 0 | 3               | 5               | 50    | 50  | 100   |
| 6               | AEC                    | 24ENG16  | Communicative English                         | HSS         | 0                   | 0 | 1 | 0 | 1               | 2               | 50    | 50  | 100   |
| 7               | HSS                    | 24CIP17  | Constitution of India and Professional Ethics | HSS         | 1                   | 0 | 0 | 0 | 1               | 2               | 50    | 50  | 100   |
| 8               | AEC                    | 24EDM18  | Environment and Disaster Management           | AS          | 1                   | 0 | 0 | 0 | 1               | 2               | 50    | 50  | 100   |
| Total           |                        |          |                                               |             |                     |   |   |   | 20              | 31              | 400   | 400 | 800   |

| (ESC-I) Engineering Science Courses-I  |                              | (ETC-I) Emerging Technology Courses-I |                          |
|----------------------------------------|------------------------------|---------------------------------------|--------------------------|
| 24ESC131                               | Basic Electronics            | 24ETC151                              | Robotics and Automation  |
| 24ESC132                               | Basic Electrical Engineering | 24ETC152                              | Electric Vehicles        |
| 24ESC133                               | Basic Mechanical Engineering | 24ETC153                              | Basic Internet of Things |
| 24ESC134                               | Basic Civil Engineering      | 24ETC154                              | Drone Technology         |
|                                        |                              | 24ETC155                              | Basic Cyber Security     |
| (PLC-I) Programming Language Courses-I |                              | 24ETC156                              | Nano Technology          |
| 24PLC141                               | Problem Solving using Python | 24ETC157                              | Renewable Energy Sources |
| 24PLC142                               | Problem Solving using C      |                                       |                          |
| 24PLC143                               | Basic Web Programming        |                                       |                          |

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Principal



## SCHEME OF TEACHING AND EXAMINATIONS OF I SEMESTER BE (EFFECTIVE FROM THE AY 2024-25)

| CSE/EEE |                        |                   |                                        |             |                     |   |   |   |                 |               | Physics Cycle |     |       |
|---------|------------------------|-------------------|----------------------------------------|-------------|---------------------|---|---|---|-----------------|---------------|---------------|-----|-------|
| S. No.  | Course and Course Code |                   | Course Title                           | BOS         | Credit Distribution |   |   |   | Overall Credits | Contact Hours | Marks         |     |       |
|         |                        |                   |                                        |             | L                   | T | P | S |                 |               | CIE           | SEE | Total |
| 1       | ASC                    | 24MAT11           | Applied Mathematics for Engineers - I  | AS          | 2                   | 1 | 1 | 0 | 4               | 2+2+2         | 50            | 50  | 100   |
| 2       | ASC                    | 24PHY12           | Applied Physics for Engineers          | AS          | 3                   | 0 | 1 | 0 | 4               | 4+2           | 50            | 50  | 100   |
| 3       | ESC-I                  | 24ESC13*          | Engineering Science Course I           | EEE         | 3                   | 0 | 0 | 0 | 3               | 4             | 50            | 50  | 100   |
| 4       | PLC-I                  | 24PLC14*          | Program Language Course -I             | CS          | 2                   | 0 | 1 | 0 | 3               | 3+2           | 50            | 50  | 100   |
| 5       | ETC-I                  | 24ETC15*          | Emerging Technology Course 1           | Resp. Dept. | 3                   | 0 | 0 | 0 | 3               | 4             | 50            | 50  | 100   |
| 6       | AEC                    | 24ENG16           | Communicative English                  | HSS         | 0                   | 0 | 1 | 0 | 1               | 2             | 50            | 50  | 100   |
| 7       | HSS                    | 24KSK17 / 24KBK17 | Samskrutika Kannada/ Balake Kannada    | HSS         | 1                   | 0 | 0 | 0 | 1               | 2             | 50            | 50  | 100   |
| 8       | AEC                    | 24EIH18           | Engineering Innovations in Health Care | AS          | 1                   | 0 | 0 | 0 | 1               | 2             | 50            | 50  | 100   |
| Total   |                        |                   |                                        |             |                     |   |   |   | 20              | 30            | 400           | 400 | 800   |

| (ESC-I) Engineering Science Courses-I  |                              | (ETC-I) Emerging Technology Courses-I |                          |
|----------------------------------------|------------------------------|---------------------------------------|--------------------------|
| 24ESC131                               | Basic Electronics            | 24ETC151                              | Robotics and Automation  |
| 24ESC132                               | Basic Electrical Engineering | 24ETC152                              | Electric Vehicles        |
| 24ESC133                               | Basic Mechanical Engineering | 24ETC153                              | Basic Internet of Things |
| 24ESC134                               | Basic Civil Engineering      | 24ETC154                              | Drone Technology         |
|                                        |                              | 24ETC155                              | Basic Cyber Security     |
|                                        |                              | 24ETC156                              | Nano Technology          |
| (PLC-I) Programming Language Courses-I |                              | 24ETC157                              | Renewable Energy Sources |
| 24PLC141                               | Problem Solving using Python |                                       |                          |
| 24PLC142                               | Problem Solving using C      |                                       |                          |
| 24PLC143                               | Basic Web Programming        |                                       |                          |

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**SCHEME OF TEACHING AND EXAMINATIONS OF II SEMESTER BE (EFFECTIVE FROM THE AY 2024-25)**

| CSE/EEE |                        |          |                                               |             |                     |   |   |   |                 |               | Chemistry Cycle |     |       |
|---------|------------------------|----------|-----------------------------------------------|-------------|---------------------|---|---|---|-----------------|---------------|-----------------|-----|-------|
| S. No   | Course and Course Code |          | Course Title                                  | BOS         | Credit Distribution |   |   |   | Overall Credits | Contact Hours | Marks           |     |       |
|         |                        |          |                                               |             | L                   | T | P | S |                 |               | CIE             | SEE | Total |
| 1       | ASC                    | 24MAT21  | Applied Mathematics for Engineers – II        | AS          | 2                   | 1 | 1 | 0 | 4               | 2+2+2         | 50              | 50  | 100   |
| 2       | ASC                    | 22CHE22  | Applied Chemistry for Engineers               | AS          | 3                   | 0 | 1 | 0 | 4               | 4+2           | 50              | 50  | 100   |
| 3       | ESC-II                 | 24ESC23* | Engineering Science Course – II               | Resp. Dept. | 3                   | 0 | 0 | 0 | 3               | 4             | 50              | 50  | 100   |
| 4       | ESC                    | 24CSE24  | Data Structures using C                       | CS          | 2                   | 0 | 0 | 0 | 2               | 3             | 50              | 50  | 100   |
| 5       | ESC                    | 24CSL24  | Data Structures using C Lab                   | CS          | 0                   | 0 | 1 | 0 | 1               | 2             | 50              | 50  | 100   |
| 6       | ESC                    | 22CAD25  | Computer Aided Engineering Drawing            | ME          | 1                   | 0 | 2 | 0 | 3               | 5             | 50              | 50  | 100   |
| 7       | AEC                    | 24ENG26  | Professional writing skills in English        | HSS         | 1                   | 0 | 0 | 0 | 1               | 2             | 50              | 50  | 100   |
| 8       | HSS                    | 24CIP27  | Constitution of India and Professional Ethics | HSS         | 1                   | 0 | 0 | 0 | 1               | 2             | 50              | 50  | 100   |
| 9       | AEC                    | 24EDM28  | Environment and Disaster Management           | AS          | 1                   | 0 | 0 | 0 | 1               | 2             | 50              | 50  | 100   |
| Total   |                        |          |                                               |             |                     |   |   |   | 20              | 31            | 450             | 450 | 900   |

| (ESC-II) Engineering Science Courses-II |                              | (ETC-II) Emerging Technology Courses-II |                          |
|-----------------------------------------|------------------------------|-----------------------------------------|--------------------------|
| 24ESC231                                | Basic Electronics            | 24ETC251                                | Robotics and Automation  |
| 24ESC232                                | Basic Electrical Engineering | 24ETC252                                | Electric Vehicles        |
| 24ESC233                                | Basic Mechanical Engineering | 24ETC253                                | Basic Internet of Things |
| 24ESC234                                | Basic Civil Engineering      | 24ETC254                                | Drone Technology         |
|                                         |                              | 24ETC255                                | Basic Cyber Security     |
|                                         |                              | 24ETC256                                | Nano Technology          |
| 24PLC241                                | Problem Solving using Python | 24ETC257                                | Renewable Energy Sources |
| 24PLC242                                | Problem Solving using C      |                                         |                          |
| 24PLC243                                | Basic Web Programming        |                                         |                          |

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**SCHEME OF TEACHING AND EXAMINATIONS OF II SEMESTER BE (EFFECTIVE FROM THE AY 2024-25)**

| AIML/ DS /ISE/ ME |                        |                   |                                        |             |                     |   |   |   |                 |               | Physics Cycle |     |       |
|-------------------|------------------------|-------------------|----------------------------------------|-------------|---------------------|---|---|---|-----------------|---------------|---------------|-----|-------|
| S. No.            | Course and Course Code |                   | Course Title                           | BOS         | Credit Distribution |   |   |   | Overall Credits | Contact Hours | Marks         |     |       |
|                   |                        |                   |                                        |             | L                   | T | P | S |                 |               | CIE           | SEE | Total |
| 1                 | ASC                    | 24MAT21           | Applied Mathematics for Engineers – II | AS          | 2                   | 1 | 1 | 0 | 4               | 2+2+2         | 50            | 50  | 100   |
| 2                 | ASC                    | 24PHY22           | Applied Physics for Engineers          | AS          | 3                   | 0 | 1 | 0 | 4               | 4+2           | 50            | 50  | 100   |
| 3                 | ESC-II                 | 24ESC23*          | Engineering Science Course II          | Resp. Dept. | 3                   | 0 | 0 | 0 | 3               | 4             | 50            | 50  | 100   |
| 4                 | ESC                    | 24CSE24           | Data Structures using C                | CS          | 2                   | 0 | 0 | 0 | 2               | 3             | 50            | 50  | 100   |
| 5                 | ESC                    | 24CSL24           | Data Structures using C Lab            | CS          | 0                   | 0 | 1 | 0 | 1               | 2             | 50            | 50  | 100   |
| 6                 | ETC-II                 | 22ETC25*          | Emerging Technology Course II          | Resp. Dept. | 3                   | 0 | 0 | 0 | 3               | 4             | 50            | 50  | 100   |
| 7                 | AEC                    | 22ENG26           | Professional writing skills in English | HSS         | 0                   | 0 | 1 | 0 | 1               | 2             | 50            | 50  | 100   |
| 8                 | HSS                    | 22KSK27 / 22KBK27 | Sanskritika Kannada/ Balake Kannada    | HSS         | 1                   | 0 | 0 | 0 | 1               | 2             | 50            | 50  | 100   |
| 9                 | AEC                    | 24EIH18           | Engineering Innovations in Health Care | AS          | 1                   | 0 | 0 | 0 | 1               | 2             | 50            | 50  | 100   |
| Total             |                        |                   |                                        |             |                     |   |   |   | 20              | 30            | 450           | 450 | 900   |

| (ESC-II) Engineering Science Courses-II  |                              | (ETC-I) Emerging Technology Courses-II |                          |
|------------------------------------------|------------------------------|----------------------------------------|--------------------------|
| 24ESC231                                 | Basic Electronics            | 24ETC251                               | Robotics and Automation  |
| 24ESC232                                 | Basic Electrical Engineering | 24ETC252                               | Electric Vehicles        |
| 24ESC233                                 | Basic Mechanical Engineering | 24ETC253                               | Basic Internet of Things |
| 24ESC234                                 | Basic Civil Engineering      | 24ETC254                               | Drone Technology         |
|                                          |                              | 24ETC255                               | Basic Cyber Security     |
|                                          |                              | 24ETC256                               | Nano Technology          |
|                                          |                              | 24ETC257                               | Renewable Energy Sources |
| (PLC-II) Programming Language Courses-II |                              |                                        |                          |
| 24PLC241                                 | Problem Solving using Python |                                        |                          |
| 24PLC242                                 | Problem Solving using C      |                                        |                          |
| 24PLC243                                 | Basic Web Programming        |                                        |                          |

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**NEW HORIZON COLLEGE OF ENGINEERING**  
**DEPARTMENT OF MANAGEMENT STUDIES**  
**SCHEME OF I SEMESTER MBA**  
**BATCH:2024-2026**

| Sl. No       | Course and Course Code |         | Course Title                                      | BOS | Credit Distribution |   |        | Overall credit | Teaching Hours/ week | Marks      |            |            |
|--------------|------------------------|---------|---------------------------------------------------|-----|---------------------|---|--------|----------------|----------------------|------------|------------|------------|
|              |                        |         |                                                   |     | L                   | P | T/ SDA |                |                      | CIE        | SEE        | Total      |
| 1            | PCC                    | 24MBA11 | Management Principles and Organisational Behavior | MBA | 3                   | 0 | 0      | 3              | 3                    | 50         | 50         | 100        |
| 2            | PCC                    | 24MBA12 | Managerial Economics                              | MBA | 4                   | 0 | 0      | 4              | 4                    | 50         | 50         | 100        |
| 3            | PCC                    | 24MBA13 | Data Analysis And Decision Making                 | MBA | 4                   | 0 | 0      | 4              | 4                    | 50         | 50         | 100        |
| 4            | PCC                    | 24MBA14 | Accounting & Financial Statement Analysis         | MBA | 4                   | 0 | 0      | 4              | 4                    | 50         | 50         | 100        |
| 5            | PCC                    | 24MBA15 | Marketing Management                              | MBA | 4                   | 0 | 0      | 4              | 4                    | 50         | 50         | 100        |
| 6            | PCC                    | 24MBA16 | Business Research Methods                         | MBA | 3                   | 0 | 0      | 3              | 3                    | 50         | 50         | 100        |
| 7            | PCC                    | 24MBA17 | Managerial Communication                          | HSS | 1                   | 0 | 0      | 1              | 1                    | 50         | 50         | 100        |
| 8            | PCC                    | 24MBA18 | Basics of Excel                                   | MBA | 1                   | 1 | 0      | 2              | 3                    | 50         | 50         | 100        |
| 9            | PCC                    | 24MBA19 | Business Immersion Project                        | MBA | 0                   | 2 | 0      | 2              | 0                    | 50         | 50         | 100        |
| <b>Total</b> |                        |         |                                                   |     |                     |   |        | <b>27</b>      | <b>26</b>            | <b>450</b> | <b>450</b> | <b>900</b> |

**Note:**

**PCC: Professional Core Course, Practical /Field Work / Assignment are part of contact hours for the faculty and must be considered in the workload. Each course carries Four credits and is designed for 50 hours of Teaching-Learning process.** The teaching pedagogy may involve Case study method, Experiential learning, Presentations, Interactive lectures, Role-plays, Business games, Blended Learning, Simulations games/Hands-on experience, ICT tools, Flipped Class, Field experiments, Business Quiz/Exercises, Group

discussion, Lectures, team activities.

Societal project shall be Mandatory course, the students should identify and study problems faced by the society. The students must submit a report to the respective guides. This shall be an audit course on the lines of ability enhancement courses and shall be undertaken after the first semester and before commencement of the second semester.

**Note:**

1. Practical and real-life corporate results/events, cases and occurrences must be used to demonstrate the concepts in the classroom. The Time-Table allotment for each course should be 04 hrs. Practical component must be embedded in the theory classes and it is mandatory to maintain a record of all tools and cases used in teaching-learning process.
2. 20% of marks should be allocated for application-oriented questions in the SEE Question Paper, based on practical component.
3. Each course content has indicative case studies which can be dealt in the class by the course instructor. In addition to this the course instructor may use an extra case from Harvard, Sage business cases/Case Centre. One Industrial Visit per Semester is Mandatory. The Department shall insist on report submission by each student and shall maintain this as a documentary proof preferably with Geo-tagged photos. The format of the report shall be prescribed by the department.
4. The Students and course instructor/s should involve either individually or in groups to interact together to enhance the learning and application skills.
5. Practical component Students should interact with industry after regular contact hours (small, medium and large) to understand their problems and study in the form of research/testing/projects and for creative and innovative methods for guidance and to solve the identified problem.
6. The students shall (a) Gain confidence in modeling of management systems. (b) Work on different software/s (tools) to Simulate, analyze and authenticate the output to interpret and conclude. (c) Involve in case studies and field visits/ field work. (d) Accustom with the use of standards/codes etc., to narrow the gap between academia and industry. All activities should lead to enhancement of students' abilities/skills for employment and/or self-employment opportunity, management skills, statistical analysis, fiscal expertise, etc.
7. The student shall take a Business Immersion Project from the beginning of the first semester and interact with the corporate guide and faculty from the department. The student has to submit the report at the end of first semester to the department which will followed by Viva-voce.
8. Business Immersion Project are themed experiences that allows students to engage with and observe corporate leaders from various industries. The goal of Business Immersion projects is to provide insights on real-world projects and develop outside-in-thinking. It helps the students in developing communications, critical thinking and problem-solving skills,

**NEW HORIZON COLLEGE OF ENGINEERING**  
**DEPARTMENT OF MANAGEMENT STUDIES**  
**SCHEME OF II SEMESTER MBA**  
**BATCH:2024-2026**

| Sl. No.      | Course and Course Code |         | Course Title                                   | BOS | Credit Distribution              |   |        | Overall credit | Teaching Hours/Week | Marks      |            |            |
|--------------|------------------------|---------|------------------------------------------------|-----|----------------------------------|---|--------|----------------|---------------------|------------|------------|------------|
|              |                        |         |                                                |     | L                                | P | T/ SDA |                |                     | CIE        | SEE        | Total      |
| 1            | PCC                    | 24MBA21 | Production & Operations Management             | MBA | 4                                | 0 | 0      | 4              | 4                   | 50         | 50         | 100        |
| 2            | PCC                    | 24MBA22 | Corporate Finance                              | MBA | 4                                | 0 | 0      | 4              | 4                   | 50         | 50         | 100        |
| 3            | PCC                    | 24MBA23 | Human Resource Management                      | MBA | 3                                | 0 | 0      | 3              | 3                   | 50         | 50         | 100        |
| 4            | PCC                    | 24MBA24 | Entrepreneurship Development                   | MBA | 4                                | 0 | 0      | 4              | 4                   | 50         | 50         | 100        |
| 5            | PCC                    | 24MBA25 | Business Ethics & Corporate governance         | MBA | 3                                | 0 | 0      | 3              | 3                   | 50         | 50         | 100        |
| 6            | PCC                    | 24MBA26 | Corporate Interface & Professional Development | HSS | 1                                | 0 | 0      | 1              | 1                   | 50         | 50         | 100        |
| 7            | PCC                    | 24MBA27 | Quantitative Techniques & Operations Research  | MBA | 4                                | 0 | 0      | 4              | 4                   | 50         | 50         | 100        |
| 8            | SEC                    | 24MBA28 | Societal Project                               | MBA | Audit Course without any Credits |   |        |                |                     |            |            |            |
| <b>Total</b> |                        |         |                                                |     |                                  |   |        | <b>23</b>      | <b>23</b>           | <b>350</b> | <b>350</b> | <b>700</b> |

**Note:**

**PCC: Professional Core Course, SEC: Skill Enhancement Course Practical /Field Work / Assignment are part of contact hours for the faculty and must be considered in the workload. Four credit courses are designed for 50 hours Teaching – Learning process.** The teaching pedagogy may involve Case study method, Experiential learning, Presentations, Interactive lectures, Role-plays, Business games, Blended Learning, Simulations games/Hands-on experience, ICT tools, Flipped Class, Field experiments, Business Quiz/Exercises, Group discussion, Lectures, team activities.

**Note:**

1. Practical and real-life corporate results/events, cases and occurrences must be used to demonstrate the concepts in the classroom. The Time-Table allotment for each course should be 04 hrs. Practical component must be embedded in the theory classes and it is mandatory to maintain a record of all tools and cases used in teaching-learning process
2. 20% of marks should be allocated for application-oriented questions in the SEE Question Paper, based on

practical component.

3. Each course content has indicative case studies which can be dealt in the class by the course instructor. In addition to this the course instructor may use an extra case from Harvard, Sage business cases /Case Centre.
4. One Industrial Visit per Semester is Mandatory. The Department shall insist on report submission by each student and shall maintain this as a documentary proof preferably with Geo-tagged photos. The format of the report shall be prescribed by the department.
5. Practical component: Students should interact with industry after regular contact hours or during holidays and vacations (small, medium and large) to understand their problems and study in the form of research/ testing / projects and for creative and innovative methods for guidance and to solve the identified problem.
6. Societal Project (One week) is mandatory for all the students and this has to be carried out after the second semester during vacation and the report should be submitted by the students and should be assessed internally during the third semester and it is a non-credit but mandatory course (Audit Course).
7. Internship (Seven weeks) to be carried out by the students after second semester during vacation and the report should be submitted by the students and is to be assessed internally during the third semester.

**NEW HORIZON COLLEGE OF ENGINEERING**  
**DEPARTMENT OF MANAGEMENT STUDIES**  
**SCHEME OF III SEMESTER MBA**  
**BATCH:2023-2025**

| Sl. No       | Course and Course Code |            | Course Title              | BOS | Credit Distribution |   |   |   | Overall credit | Teaching Hours/ week | Marks      |            |            |
|--------------|------------------------|------------|---------------------------|-----|---------------------|---|---|---|----------------|----------------------|------------|------------|------------|
|              |                        |            |                           |     | L                   | T | P | S |                |                      | CIE        | SEE        | Total      |
| 1            | PCC                    | 23MBA31    | Managing Digital Business | MBA | 3                   | 0 | 0 | 0 | 3              | 3                    | 50         | 50         | 100        |
| 2            | PCC                    | 23MBA32    | International Business    | MBA | 3                   | 0 | 0 | 0 | 3              | 3                    | 50         | 50         | 100        |
| 3            | PEC                    | 23MBAXX*** | Elective 1                | MBA | 3                   | 0 | 0 | 0 | 3              | 3                    | 50         | 50         | 100        |
| 4            | PEC                    | 23MBAXX*** | Elective 2                | MBA | 3                   | 0 | 0 | 0 | 3              | 3                    | 50         | 50         | 100        |
| 5            | PEC                    | 23MBAXX*** | Elective 1                | MBA | 3                   | 0 | 0 | 0 | 3              | 3                    | 50         | 50         | 100        |
| 6            | PEC                    | 23MBAXX*** | Elective 2                | MBA | 3                   | 0 | 0 | 0 | 3              | 3                    | 50         | 50         | 100        |
| 7            | PCC                    | 23MBA33    | Internship                | MBA | 0                   | 0 | 6 | 0 | 6              | -                    | 50         | 50         | 100        |
| <b>Total</b> |                        |            |                           |     |                     |   |   |   | <b>24</b>      | <b>18</b>            | <b>350</b> | <b>350</b> | <b>700</b> |

**Note: PCC\*: Professional Core Course, PEC: Professional Elective Course, Practical /Field Work / Assignment are part of contact hours for the faculty and must be considered in the workload (Practical component hours must be conducted as regular teaching hours in the respective class rooms only). Four credit courses are designed for 50 hours Teaching – Learning process. The teaching pedagogy may involve Case study method, Experiential learning, Presentations, Interactive lectures, Role-plays, Business games, Blended Learning, Simulations games/Hands-on experience, ICT tools, Flipped Class, Field experiments, Business Quiz/Exercises, Group discussion, Lectures and team activities.**

**Note:**

- Each Course has a theory component of 04 hrs (03credits). Practical and real-life corporate results/events, cases and occurrences must be used to demonstrate the concepts in the classroom. The Time-Table allotment for each course should be 04 hrs. Practical component must be embedded in the theory classes and it is mandatory to maintain a record of all tools and cases used in teaching –learning process
- 20% of marks should be allocated for application-oriented questions in the SEE Question Paper, based on practical component.
- One Industrial Visit per Semester is Mandatory. The Department shall insist on report submission by each student and shall maintain this as a documentary proof preferably with Geo-tagged photos. The format of the report shall be prescribed by the department.
- Each course content has indicative case studies which can be dealt in the class by the course instructor. In addition to this the course instructor may use an extra case from Harvard, Sage Business Cases/Case Centre.
- Internship (Six weeks) to be carried out by the students after second semester during vacation and the report should be submitted by the students and is to be assessed internally during the third semester.

6. Societal Project (one week) is mandatory for all the students and this has to be carried out after the second semester during vacation and the report should be submitted by the students and should be assessed internally during the third semester and it is a non-credit but mandatory course (Audit Course).
7. Students should compulsorily register for the MOOC Course (NPTEL Swayam) during 3<sup>rd</sup> semester and attend the exam and submit the certificate. The evaluation will be carried out during fourth semester.

| <b>Sl No</b> | <b>Marketing Elective</b>                | <b>Code</b> |  | <b>Sl No</b> | <b>Finance Elective</b>                          | <b>Code</b> |
|--------------|------------------------------------------|-------------|--|--------------|--------------------------------------------------|-------------|
| 1            | Consumer Behavior in Digital Age         | 23MBAMM331  |  | 1            | Investment Management                            | 23MBAFM341  |
| 2            | Sales and Distribution Management        | 23MBAMM332  |  | 2            | Application of AI in Fintech Services & Products | 23MBAFM342  |
| 3            | Retail Management                        | 23MBAMM333  |  | 3            | Advanced Financial Management                    | 23MBAFM343  |
| 4            | Product Management                       | 23MBAMM334  |  | 4            | Direct & Indirect Taxation                       | 23MBAFM344  |
|              |                                          |             |  |              |                                                  |             |
| <b>Sl No</b> | <b>HR Elective</b>                       | <b>Code</b> |  | <b>Sl No</b> | <b>Logistics &amp; Supply Chain Management</b>   | <b>Code</b> |
| 1            | Human Resource Metrics and Analytics     | 23MBAHR321  |  | 1            | Sustainable Operations                           | 23MBALS351  |
| 2            | Employment Relation Laws                 | 23MBAHR322  |  | 2            | Innovations in Total Quality Management          | 23MBALS352  |
| 3            | Diversity, Equity & Inclusivity          | 23MBAHR323  |  | 3            | Service Operations Management                    | 23MBALS353  |
| 4            | International Human Resources Management | 23MBAHR324  |  | 4            | Lean Operation Management                        | 23MBALS354  |

| <b>Sl No</b> | <b>Artificial Intelligence &amp; Data Science</b> | <b>Code</b> |
|--------------|---------------------------------------------------|-------------|
| 1            | Python Programming for Business Managers          | 23MBADS311  |
| 2            | Introduction to Structured Query Language         | 23MBADS312  |
| 3            | Generative AI in Data Analytics for Managers      | 23MBADS313  |
| 4            | Machine Learning in Management                    | 23MBADS314  |

**NEW HORIZON COLLEGE OF ENGINEERING**  
**DEPARTMENT OF MANAGEMENT STUDIES**  
**SCHEME OF IV SEMESTER MBA**  
**BATCH:2023-2025**

| Sl. No       | Course and Course Code |            | Course Title               | BOS | Credit Distribution |   |    |   | Over all credit                                                                      | Teach ing Hours / week | Marks      |            |            |
|--------------|------------------------|------------|----------------------------|-----|---------------------|---|----|---|--------------------------------------------------------------------------------------|------------------------|------------|------------|------------|
|              |                        |            |                            |     | L                   | T | P  | S |                                                                                      |                        | CIE        | SEE        | Total      |
| 1            | PCC                    | 23MBA41    | Indian Ethos in Management | MBA | 4                   | 0 | 0  | 0 | 4                                                                                    | 4                      | 50         | 50         | <b>100</b> |
| 2            | PEC                    | 23MBAXX*** | Elective 1                 | MBA | 3                   | 0 | 0  | 0 | 3                                                                                    | 3                      | 50         | 50         | <b>100</b> |
| 3            | PEC                    | 23MBAXX*** | Elective 2                 | MBA | 3                   | 0 | 0  | 0 | 3                                                                                    | 3                      | 50         | 50         | <b>100</b> |
| 4            | PEC                    | 23MBAXX*** | Elective 1                 | MBA | 3                   | 0 | 0  | 0 | 3                                                                                    | 3                      | 50         | 50         | <b>100</b> |
| 5            | PEC                    | 23MBAXX*** | Elective 2                 | MBA | 3                   | 0 | 0  | 0 | 3                                                                                    | 3                      | 50         | 50         | <b>100</b> |
| 6            | PCC                    | 23MBA43    | Dissertation               | MBA | 0                   | 0 | 10 | 0 | 10                                                                                   | -                      | 50         | 50         | <b>100</b> |
| 7            | AUD                    | 23AUD44*   | AUD                        | AUD | 0                   | 0 | 4  | 0 | Classes & Evaluation procedures are as per the policy of the online course providers |                        |            |            |            |
| <b>Total</b> |                        |            |                            |     |                     |   |    |   | <b>26</b>                                                                            | <b>16</b>              | <b>300</b> | <b>300</b> | <b>600</b> |

**Note: PCC\*: Professional Core Course, PEC: Professional Elective Course, Field Work / Assignment are part of contact hours for the faculty and must be considered in the workload (Practical component hours must be conducted as regular teaching hours in the respective class rooms only. Three credit courses are designed for 40 hours Teaching – Learning process. The teaching pedagogy may involve Case study method, Experiential learning, Presentations, Interactive lectures, Role-plays, Business games, Blended Learning, Simulations games/Hands-on experience, ICT tools, Flipped Class, Field experiments, Business Quiz/Exercises, Group discussion, Lectures and team activities.**

**Note:**

1. 20% of marks should be allocated for application-oriented questions in the SEE Question Paper, based on practical component.
2. One Industrial Visit per Semester is Mandatory. The Department shall insist on report submission by each student and shall maintain this as a documentary proof. The format of the report shall be prescribed by the department.
3. Each course content has indicative case studies which can be dealt in the class by the course instructor. In addition to this the course instructor may use an extra case from Harvard, Sage Business Cases/Case Centre.
4. Dissertation -23MBA43 (twelve weeks) to be carried out by students after third semester and the report should be submitted by the students during the fourth semester and is to be assessed internally during the fourth semester.

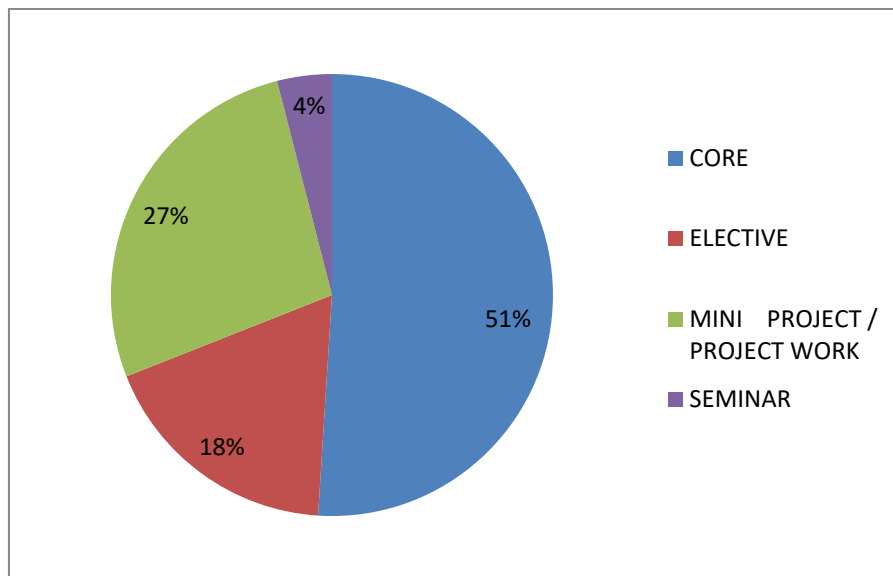
| <b>Sl No</b> | <b>Marketing Elective</b>                          | <b>Code</b> |  | <b>Sl No</b> | <b>Finance Elective</b>                 | <b>Code</b> |
|--------------|----------------------------------------------------|-------------|--|--------------|-----------------------------------------|-------------|
| 1            | Artificial Intelligence Tools in Digital Marketing | 23MBAMM431  |  | 1            | International Financial Management      | 23MBAFM441  |
| 2            | Services Marketing                                 | 23MBAMM432  |  | 2            | Commercial Bank Management              | 23MBAFM442  |
| 3            | Marcomms @ Work                                    | 23MBAMM433  |  | 3            | Forex & Treasury Management             | 23MBAFM443  |
| 4            | B2B Marketing                                      | 23MBAMM434  |  | 4            | Financial Derivatives & Risk Management | 23MBAFM444  |

| <b>Sl No</b> | <b>HR Elective</b>                        | <b>Code</b> |  | <b>Sl No</b> | <b>Logistics &amp; Supply Chain Management</b> | <b>Code</b> |
|--------------|-------------------------------------------|-------------|--|--------------|------------------------------------------------|-------------|
| 1            | AI – Enhanced HR                          | 23MBAHR421  |  | 1            | Supply Chain Analytics                         | 23MBALS451  |
| 2            | Leadership in Artificial Intelligence Era | 23MBAHR422  |  | 2            | Business Process Improvement                   | 23MBALS452  |
| 3            | Organization Design & Development         | 23MBAHR423  |  | 3            | Project Management Essentials                  | 23MBALS453  |
| 4            | Managing Career Success & Transition      | 23MBAHR424  |  | 4            | Materials Management                           | 23MBALS454  |

| <b>Sl No</b> | <b>Artificial Intelligence &amp; Data Science</b>  | <b>Code</b> |
|--------------|----------------------------------------------------|-------------|
| 1            | Data Visualization Using Tableau and Story Telling | 23MBADS411  |
| 2            | Statistical Modeling Using R                       | 23MBADS412  |
| 3            | Text and Social Media Analytics                    | 23MBADS413  |
| 4            | Predictive Analytics Using Artificial Intelligence | 23MBADS414  |

**DEPARTMENT OF MASTER OF COMPUTER APPLICATIONS**  
**MCA DEGREE CURRICULUM – COURSE CREDIT STRUCTURE**  
**ACADEMIC YEAR 2024-2025: SEMESTER I TO IV**

| SEMESTER                     | CORE       | ELECTIVE   | MINI<br>PROJECT<br>/<br>PROJECT<br>WORK | SEMINAR   | TOTAL<br>CREDITS |
|------------------------------|------------|------------|-----------------------------------------|-----------|------------------|
| I                            | 25         | 0          | 0                                       | 0         | 25               |
| II                           | 17         | 6          | 2                                       | 0         | 25               |
| III                          | 9          | 6          | 8                                       | 2         | 25               |
| IV                           | 0          | 6          | 17                                      | 2         | 25               |
| <b>TOTAL</b>                 | <b>51</b>  | <b>18</b>  | <b>27</b>                               | <b>4</b>  | <b>100</b>       |
| <b>% of<br/>Distribution</b> | <b>51%</b> | <b>18%</b> | <b>27%</b>                              | <b>4%</b> | <b>100%</b>      |



**DEPARTMENT OF MASTER OF COMPUTER APPLICATIONS**  
**SCHEME OF FIRST SEMESTER MCA PROGRAM**  
**AY 2024-25**

| S<br>N<br>O                                                                                                                                                                                                                                                                                                                                                                                                                                                     | BOARD<br>/<br>COURSE | COURSE<br>CODE | COURSE                                     | BOS | CREDIT<br>DISTRIBUTION |   |     |   | OVERALL<br>CREDITS | CONTACT HOURS<br>WEEKLY (THEORY) | MARKS |     |       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|----------------|--------------------------------------------|-----|------------------------|---|-----|---|--------------------|----------------------------------|-------|-----|-------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                      |                |                                            |     | L                      | T | P   | S |                    |                                  | CIE   | SEE | TOTAL |
| 1                                                                                                                                                                                                                                                                                                                                                                                                                                                               | AS/BSC               | 24MATC11       | COMPUTATIONAL MATHEMATICS                  | MCA | 3                      | 1 | 0   | 0 | 4                  | 5                                | 50    | 50  | 100   |
| 2                                                                                                                                                                                                                                                                                                                                                                                                                                                               | MCA/PCC              | 24MCA12        | PROGRAMMING AND PROBLEM SOLVING WITH C     | MCA | 3                      | 0 | 0   | 0 | 3                  | 3                                | 50    | 50  | 100   |
| 3                                                                                                                                                                                                                                                                                                                                                                                                                                                               | MCA/PCC              | 24MCA13        | OBJECT ORIENTED PROGRAMMING WITH JAVA      | MCA | 3                      | 0 | 0   | 0 | 3                  | 3                                | 50    | 50  | 100   |
| 4                                                                                                                                                                                                                                                                                                                                                                                                                                                               | MCA/PCC              | 24MCA14        | SOFTWARE ENGINEERING AND TESTING           | MCA | 3                      | 0 | 0   | 0 | 3                  | 3                                | 50    | 50  | 100   |
| 5                                                                                                                                                                                                                                                                                                                                                                                                                                                               | MCA/IPCC             | 24MCA15        | LINUX OPERATING SYSTEM AND SHELL SCRIPTING | MCA | 3                      | 0 | 1   | 0 | 4                  | 5                                | 50    | 50  | 100   |
| 6                                                                                                                                                                                                                                                                                                                                                                                                                                                               | MCA/IPCC             | 24MCA16        | DATA BASE MANAGEMENT SYSTEMS               | MCA | 3                      | 0 | 1   | 0 | 4                  | 5                                | 50    | 50  | 100   |
| 7                                                                                                                                                                                                                                                                                                                                                                                                                                                               | MCA/PCCL             | 24MCAL17       | PROGRAMMING WITH C LAB                     | MCA | 0                      | 0 | 1.5 | 0 | 1.5                | 3                                | 50    | 50  | 100   |
| 8                                                                                                                                                                                                                                                                                                                                                                                                                                                               | MCA/PCCL             | 24MCAL18       | PROGRAMMING WITH JAVA LAB                  | MCA | 0                      | 0 | 1.5 | 0 | 1.5                | 3                                | 50    | 50  | 100   |
| 9                                                                                                                                                                                                                                                                                                                                                                                                                                                               | LS/AEC               | 22HSSC19       | LIFE SKILLS FOR PROFESSIONALS -1           | MCA | 1                      | 0 | 0   | 0 | 1                  | 2                                | 50    | 50  | 100   |
| TOTAL                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                      |                |                                            |     | 19                     | 1 | 5   | 0 | 25                 | 32                               | 450   | 450 | 900   |
| L -Lecture (1 hour), T- Tutorial/Skill Development Activities (2 hours), P-Practical (2 hours), S-Self Study (hours – Nil)<br>*Selected online courses will be given as per BOS recommendation.<br>*PCC- Professional Core. IPCC-Integrated Professional Core Courses (No SEE for lab component only CIE),<br>PCCL- Professional Core Lab, AEC- Ability Enhancement Course.<br>*BoS recommended certified online courses is offered in 4 <sup>th</sup> semester |                      |                |                                            |     |                        |   |     |   |                    |                                  |       |     |       |

**DEPARTMENT OF MASTER OF COMPUTER APPLICATIONS**  
**SCHEME OF SECOND SEMESTER MCA PROGRAM**  
**AY 2024-25**

| S<br>NO                                                                                                                                                                                                                                                                                                                                                                       | BOARD/<br>COURSE | COURSE<br>CODE | COURSE                                          | BOS | CREDIT<br>DISTRIBUTION |   |     |   | OVERALL<br>CREDITS | CONTACT HOURS<br>WEEKLY (THEORY) | MARKS |     |       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|----------------|-------------------------------------------------|-----|------------------------|---|-----|---|--------------------|----------------------------------|-------|-----|-------|
|                                                                                                                                                                                                                                                                                                                                                                               |                  |                |                                                 |     | L                      | T | P   | S |                    |                                  | CIE   | SEE | TOTAL |
| 1                                                                                                                                                                                                                                                                                                                                                                             | MCA/PCC          | 24MCA21        | DATA STRUCTURES                                 | MCA | 3                      | 0 | 0   | 0 | 3                  | 3                                | 50    | 50  | 100   |
| 2                                                                                                                                                                                                                                                                                                                                                                             | MCA/PCC          | 24MCA22        | ADVANCED JAVA<br>AND ENTERPRISE<br>ARCHITECTURE | MCA | 3                      | 0 | 0   | 0 | 3                  | 3                                | 50    | 50  | 100   |
| 3                                                                                                                                                                                                                                                                                                                                                                             | MCA/PCC          | 24MCA23        | DESIGN AND<br>ANALYSIS OF<br>ALGORITHMS         | MCA | 2                      | 1 | 0   | 0 | 3                  | 4                                | 50    | 50  | 100   |
| 4                                                                                                                                                                                                                                                                                                                                                                             | MCA/IPCC         | 24MCA24        | COMPUTER<br>NETWORKS                            | MCA | 3                      | 0 | 1   | 0 | 4                  | 5                                | 50    | 50  | 100   |
| 5                                                                                                                                                                                                                                                                                                                                                                             | MCA/PEC          | 24MCA25X       | PROFESSIONAL<br>ELECTIVES-1                     | MCA | 2                      | 1 | 0   | 0 | 3                  | 4                                | 50    | 50  | 100   |
| 6                                                                                                                                                                                                                                                                                                                                                                             | MCA/PEC          | 24MCA26X       | PROFESSIONAL<br>ELECTIVES-2                     | MCA | 0                      | 1 | 2   | 0 | 3                  | 6                                | 50    | 50  | 100   |
| 7                                                                                                                                                                                                                                                                                                                                                                             | MCA/PCCL         | 24MCAL27       | DATA STRUCTURES<br>AND ALGORITHMS<br>LAB        | MCA | 0                      | 0 | 1.5 | 0 | 1.5                | 3                                | 50    | 50  | 100   |
| 8                                                                                                                                                                                                                                                                                                                                                                             | MCA/PCCL         | 24MCAL28       | ADVANCED JAVA<br>LAB                            | MCA | 0                      | 0 | 1.5 | 0 | 1.5                | 3                                | 50    | 50  | 100   |
| 9                                                                                                                                                                                                                                                                                                                                                                             | MCA/MP           | 24MCAL29       | MINI PROJECT<br>USING JAVA AND<br>DBMS          | MCA | 0                      | 0 | 2   | 0 | 2                  | -                                | 50    | 50  | 100   |
| 10                                                                                                                                                                                                                                                                                                                                                                            | LS/AEC           | 22HSSC210      | LIFE SKILLS FOR<br>PROFESSIONALS -2             | MCA | 1                      | 0 | 0   | 0 | 1                  | 2                                | 50    | 50  | 100   |
| TOTAL                                                                                                                                                                                                                                                                                                                                                                         |                  |                |                                                 |     | 14                     | 3 | 8   | 0 | 25                 | 33                               | 500   | 500 | 1000  |
| L -Lecture (1 hour), T- Tutorial/ Skill Development Activities (2 hours), P-Practical (2 hours), S-Self Study (hours – Nil)<br>*Selected online courses MCA/PCC will be given as per BOS recommendation.<br>*PCC- Professional core. IPCC- Integrated Professional Core Courses (No SEE for lab component only CIE),<br>MP- Mini Project, PEC- Professional Elective Courses. |                  |                |                                                 |     |                        |   |     |   |                    |                                  |       |     |       |
| *BoS recommended certified online courses is offered in 4 <sup>th</sup> semester                                                                                                                                                                                                                                                                                              |                  |                |                                                 |     |                        |   |     |   |                    |                                  |       |     |       |

| PROFESSIONAL ELECTIVES-1 |             |                                           |     |                     |   |   |   |       |
|--------------------------|-------------|-------------------------------------------|-----|---------------------|---|---|---|-------|
| SNO                      | COURSE CODE | COURSE                                    | BOS | CREDIT DISTRIBUTION |   |   |   | TOTAL |
|                          |             |                                           |     | L                   | T | P | S |       |
| 1                        | 24MCA251    | CLOUD COMPUTING                           | MCA | 2                   | 1 | 0 | 0 | 3     |
| 2                        | 24MCA252    | CYBER SECURITY AND CYBER LAW              | MCA | 2                   | 1 | 0 | 0 | 3     |
| 3                        | 24MCA253    | CRYPTOGRAPHY AND NETWORK SECURITY         | MCA | 2                   | 1 | 0 | 0 | 3     |
| 4                        | 24MCA254    | ARTIFICIAL INTELLIGENCE                   | MCA | 2                   | 1 | 0 | 0 | 3     |
| 5                        | 24MCA255    | USER INTERFACE AND USER EXPERIENCE DESIGN | MCA | 2                   | 1 | 0 | 0 | 3     |

| PROFESSIONAL ELECTIVES-2 |             |                                          |     |                     |   |   |   |       |
|--------------------------|-------------|------------------------------------------|-----|---------------------|---|---|---|-------|
| SNO                      | COURSE CODE | COURSE                                   | BOS | CREDIT DISTRIBUTION |   |   |   | TOTAL |
|                          |             |                                          |     | L                   | T | P | S |       |
| 1                        | 24MCA261    | BUSINESS INTELLIGENCE AND DATA ANALYTICS | MCA | 0                   | 1 | 2 | 0 | 3     |
| 2                        | 24MCA262    | ASP .NET WITH C#                         | MCA | 0                   | 1 | 2 | 0 | 3     |
| 3                        | 24MCA263    | MOBILE APPLICATION DEVELOPMENT           | MCA | 0                   | 1 | 2 | 0 | 3     |
| 4                        | 24MCA264    | NON RELATIONAL DATABASES (NoSQL)         | MCA | 0                   | 1 | 2 | 0 | 3     |

**DEPARTMENT OF MASTER OF COMPUTER APPLICATIONS**  
**SCHEME OF THIRD SEMESTER MCA PROGRAM**  
**AY 2024-25**

| S<br>N<br>O                                                                                                                                                                                                                                                                                                                                             | BOARD/<br>COURSE | COURSE<br>CODE | COURSE                            | BOS | CREDIT<br>DISTRIBUTION |   |     |   | OVERALL<br>CREDITS | CONTACT HOURS<br>WEEKLY<br>(THEORY) | MARKS |     |       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|----------------|-----------------------------------|-----|------------------------|---|-----|---|--------------------|-------------------------------------|-------|-----|-------|
|                                                                                                                                                                                                                                                                                                                                                         |                  |                |                                   |     | L                      | T | P   | S |                    |                                     | CIE   | SEE | TOTAL |
| 1                                                                                                                                                                                                                                                                                                                                                       | MCA/PCC          | 22MCA31        | MACHINE LEARNING                  | MCA | 3                      | 0 | 0   | 0 | 3                  | 3                                   | 50    | 50  | 100   |
| 2                                                                                                                                                                                                                                                                                                                                                       | MCA/PCC          | 22MCA32        | FULL STACK DEVELOPMENT            | MCA | 3                      | 0 | 0   | 0 | 3                  | 3                                   | 50    | 50  | 100   |
| 3                                                                                                                                                                                                                                                                                                                                                       | MCA/PEC          | 22MCA33X       | PROFESSIONAL ELECTIVES - 3        | MCA | 3                      | 0 | 0   | 0 | 3                  | 3                                   | 50    | 50  | 100   |
| 4                                                                                                                                                                                                                                                                                                                                                       | MCA/PEC          | 22MCA34X       | PROFESSIONAL ELECTIVES - 4        | MCA | 3                      | 0 | 0   | 0 | 3                  | 3                                   | 50    | 50  | 100   |
| 5                                                                                                                                                                                                                                                                                                                                                       | MCA/PCCL         | 22MCAL35       | MACHINE LEARNING LAB USING PYTHON | MCA | 0                      | 0 | 1.5 | 0 | 1.5                | 3                                   | 50    | 50  | 100   |
| 6                                                                                                                                                                                                                                                                                                                                                       | MCA/PCCL         | 22MCAL36       | FULL STACK LAB                    | MCA | 0                      | 0 | 1.5 | 0 | 1.5                | 3                                   | 50    | 50  | 100   |
| 7                                                                                                                                                                                                                                                                                                                                                       | MCA/SP           | 22MCAL37       | SOCIETAL PROJECT                  | MCA | 0                      | 0 | 2   | 0 | 2                  | -                                   | 50    | 50  | 100   |
| 8                                                                                                                                                                                                                                                                                                                                                       | MCA/INT          | 22MCA38        | INTERNSHIP                        | MCA | 0                      | 0 | 6   | 0 | 6                  | -                                   | 50    | 50  | 100   |
| 9                                                                                                                                                                                                                                                                                                                                                       | MCA/SEM          | 22MCA39        | TECHNICAL SEMINAR-1               | MCA | 0                      | 0 | 0   | 2 | 2                  | -                                   | 50    | 50  | 100   |
| TOTAL                                                                                                                                                                                                                                                                                                                                                   |                  |                |                                   |     | 12                     | 0 | 11  | 2 | 25                 | 18                                  | 450   | 450 | 900   |
| L -Lecture (1 hour), T- Tutorial (2 hours), P-Practical (2 hours), S-Self Study (hours – Nil)<br>PCC- Professional Core, PEC-Professional Elective Course, PCCL- Professional Core Course Lab,<br>SP- Societal Project, INT – Internship (06 weeks Internship to be completed in intervening vacation of<br>Semester II and Semester III), SEM- SEMINAR |                  |                |                                   |     |                        |   |     |   |                    |                                     |       |     |       |

| PROFESSIONAL ELECTIVES - 3 |                |                          |     |                        |   |   |   |       |
|----------------------------|----------------|--------------------------|-----|------------------------|---|---|---|-------|
| S<br>NO                    | COURSE<br>CODE | COURSE                   | BOS | CREDIT<br>DISTRIBUTION |   |   |   | TOTAL |
|                            |                |                          |     | L                      | T | P | S |       |
| 1                          | 22MCA331       | ADVANCED WEB DESIGNING   | MCA | 3                      | 0 | 0 | 0 | 3     |
| 2                          | 22MCA332       | CLOUD COMPUTING          | MCA | 3                      | 0 | 0 | 0 | 3     |
| 3                          | 22MCA333       | NON-RELATIONAL DATABASES | MCA | 3                      | 0 | 0 | 0 | 3     |
| 4                          | 22MCA334       | INTERNET OF THINGS       | MCA | 3                      | 0 | 0 | 0 | 3     |
| 5                          | 22MCA335       | DEEP LEARNING            | MCA | 3                      | 0 | 0 | 0 | 3     |

| PROFESSIONAL ELECTIVES - 4 |                |                                          |     |                        |   |   |   |       |
|----------------------------|----------------|------------------------------------------|-----|------------------------|---|---|---|-------|
| S<br>NO                    | COURSE<br>CODE | COURSE                                   | BOS | CREDIT<br>DISTRIBUTION |   |   |   | TOTAL |
|                            |                |                                          |     | L                      | T | P | S |       |
| 1                          | 22MCA341       | DATA SCIENCE                             | MCA | 3                      | 0 | 0 | 0 | 3     |
| 2                          | 22MCA342       | COMPUTER VISION                          | MCA | 3                      | 0 | 0 | 0 | 3     |
| 3                          | 22MCA343       | AUGMENTED REALITY AND<br>VIRTUAL REALITY | MCA | 3                      | 0 | 0 | 0 | 3     |
| 4                          | 22MCA344       | MOBILE APPLICATION<br>DEVELOPMENT        | MCA | 3                      | 0 | 0 | 0 | 3     |
| 5                          | 22MCA345       | AGILE SOFTWARE<br>DEVELOPMENT            | MCA | 3                      | 0 | 0 | 0 | 3     |

**DEPARTMENT OF MASTER OF COMPUTER APPLICATIONS**  
**SCHEME OF FOURTH SEMESTER MCA PROGRAM**  
**AY 2024-25**

| S NO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | BOARD/ COURSE | COURSE CODE | COURSE                                       | BOS                                                                                     | CREDIT DISTRIBUTION |   |    |   | OVERALL CREDITS | CONTACT HOURS WEEKLY | MARKS |     |       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-------------|----------------------------------------------|-----------------------------------------------------------------------------------------|---------------------|---|----|---|-----------------|----------------------|-------|-----|-------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |               |             |                                              |                                                                                         | L                   | T | P  | S |                 |                      | CIE   | SEE | TOTAL |
| 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | MCA/PEC       | 22MCA41X    | PROFESSIONAL ELECTIVES – 5                   | MCA                                                                                     | 3                   | 0 | 0  | 0 | 3               | 3                    | 50    | 50  | 100   |
| 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | MCA/OEC       | 20NHOPXXX   | OPEN ELECTIVE COURSE                         | MCA                                                                                     | 3                   | 0 | 0  | 0 | 3               | 3                    | 50    | 50  | 100   |
| 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | MCA/SEM       | 22MCA42     | TECHNICAL SEMINAR -2                         | MCA                                                                                     | 0                   | 0 | 0  | 2 | 2               | -                    | 50    | 50  | 100   |
| 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | MCA/PROJ      | 22MCA43     | MAJOR PROJECT                                | MCA                                                                                     | 0                   | 0 | 17 | 0 | 17              | -                    | 50    | 50  | 100   |
| 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | AUD/AEC       | 23AUD44     | BOS RECOMMENDED TWO CERTIFIED ONLINE COURSES | Classes and evaluation procedures are as per the policy of the online course providers. |                     |   |    |   |                 |                      |       |     | PP    |
| TOTAL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |               |             |                                              |                                                                                         | 6                   | 0 | 17 | 2 | 25              | 6                    | 200   | 200 | 400   |
| <p>L -Lecture (1 hour), T- Tutorial (2 hours), P-Practical (2 hours), S-Self Study (hours – Nil)<br/>           PEC-Professional Elective Course, SEM-Seminar, PROJ- Project Work, AUD/AEC – Audit Course / Ability Enhancement Course.<br/>           OEC-Industrial Open Elective Course, Credit for OEC is 03 (L: T: P:S) can be considered as(3: 0: 0 : 0).<br/>           The teaching and learning of these Courses will be based on hands-on. The Course Assessment will be based on CIE and SEE in practical mode. These Courses will be offered by Centre of Excellence to students of all the branches. Registration to Industrial open electives shall be documented and monitored on college level.</p> |               |             |                                              |                                                                                         |                     |   |    |   |                 |                      |       |     |       |

| PROFESSIONAL ELECTIVES – 5 |                |                                               |     |                        |   |   |   |       |
|----------------------------|----------------|-----------------------------------------------|-----|------------------------|---|---|---|-------|
| S<br>NO                    | COURSE<br>CODE | COURSE                                        | BOS | CREDIT<br>DISTRIBUTION |   |   |   | TOTAL |
|                            |                |                                               |     | L                      | T | P | S |       |
| 1                          | 22MCA411       | PROFESSIONAL ETHICS                           | MCA | 3                      | 0 | 0 | 0 | 3     |
| 2                          | 22MCA412       | DESIGN THINKING                               | MCA | 3                      | 0 | 0 | 0 | 3     |
| 3                          | 22MCA413       | ENTREPRENEURSHIP AND<br>INNOVATION MANAGEMENT | MCA | 3                      | 0 | 0 | 0 | 3     |
| 4                          | 22MCA414       | DIGITAL MARKETING                             | MCA | 3                      | 0 | 0 | 0 | 3     |
| 5                          | 22MCA415       | SOFTWARE PROJECT<br>MANAGEMENT                | MCA | 3                      | 0 | 0 | 0 | 3     |

| OPEN ELECTIVE COURSES |                |                                          |     |                        |   |   |   |       |
|-----------------------|----------------|------------------------------------------|-----|------------------------|---|---|---|-------|
| S NO                  | COURSE<br>CODE | COURSE                                   | BOS | CREDIT<br>DISTRIBUTION |   |   |   | TOTAL |
|                       |                |                                          |     | L                      | T | P | S |       |
| 1                     | 20NHOP601      | BIG DATA ANALYTICS USING<br>HP VERTICA-1 | MCA | 3                      | 0 | 0 | 0 | 3     |
| 2                     | 20NHOP602      | VM WARE VIRTUALISATION<br>ESSENTIALS-1   | MCA | 3                      | 0 | 0 | 0 | 3     |
| 3                     | 20NHOP614      | BLOCKCHAIN                               | MCA | 3                      | 0 | 0 | 0 | 3     |
| 4                     | 20NHOP728A     | DATABASE ADMINISTRATION<br>USING DB2     | MCA | 3                      | 0 | 0 | 0 | 3     |

**NEW HORIZON COLLEGE OF ENGINEERING**  
**Scheme of Teaching and Examinations –2024**  
**M.Tech., COMPUTER SCIENCE AND ENGINEERING**  
**Choice Based Credit System (CBCS) and Outcome-Based Education (OBE)**  
**Scheme of Teaching and Examinations for 2024 - 2026 BATCH (2024 Scheme)**

**I SEMESTER**

| Sl.No        | Course | Course Code | Course Title                           | Credit Distribution |          |          |          |           | CONTACT HRS | CIE        | SEE        | TOTAL      |
|--------------|--------|-------------|----------------------------------------|---------------------|----------|----------|----------|-----------|-------------|------------|------------|------------|
|              |        |             |                                        | L                   | T        | P        | S        | CREDITS   |             |            |            |            |
| 1            | BSC    | 24SCS11     | Mathematics for Computational Thinking | 2                   | 1        | 0        | 0        | 3         | 3           | 50         | 50         | 100        |
| 2            | PCC    | 24SCS12     | Advanced Algorithms                    | 3                   | 0        | 0        | 0        | 3         | 3           | 50         | 50         | 100        |
| 3            | PCC    | 24SCS13     | Concurrent Programming                 | 3                   | 0        | 0        | 0        | 3         | 3           | 50         | 50         | 100        |
| 4            | PCC    | 24SCS14     | UX/ UI design principles               | 2                   | 0        | 0        | 1        | 3         | 4           | 50         | 50         | 100        |
| 5            | MCC    | 24SCS15     | Research methodology and IPR           | 2                   | 0        | 0        | 1        | 3         | 4           | 50         | 50         | 100        |
| 6            | PCCL   | 24SCL16     | Advanced algorithms lab                | 0                   | 0        | 2        | 0        | 2         | 4           | 50         | 50         | 100        |
| 7            | PCCL   | 24SCL17     | UX/ UI design principles lab           | 0                   | 0        | 2        | 0        | 2         | 4           | 50         | 50         | 100        |
| <b>TOTAL</b> |        |             |                                        | <b>13</b>           | <b>1</b> | <b>4</b> | <b>2</b> | <b>19</b> | <b>25</b>   | <b>350</b> | <b>350</b> | <b>700</b> |

**Note:** During the 1<sup>st</sup> semester, students should enroll 2 online courses (Minimum) and must finish the courses before 4<sup>th</sup> semester and the evaluation will take place during the 4<sup>th</sup> semester.

Legends: BSC- Basic Science Courses, PCC: Professional core. IPCC-Integrated Professional Core Courses, MCC-Mandatory Credit Course, AUD/AEC –Audit Course/Ability

Enhancement Course (A pass in AUD/AEC is mandatory for the award of the degree), PCCL-Professional Core Course lab, L-Lecture, P-Practical, T/SDA-Tutorial / Skill Development Activities (Hours are for Interaction between faculty and students)

Integrated Professional Core Course (IPCC): Integrated Professional Core Course (IPCC): Refers to Professional Theory Core Course Integrated with practical of the same course. The theory part of the IPCC shall be evaluated both by CIE and SEE. The practical part shall be evaluated by only CIE (no SEE). However, questions from the practical part of IPCC shall be included in the SEE question paper.

Audit Courses /Ability Enhancement Courses Suggested by BOS (ONLINE courses):

**Audit Courses:** These are prerequisite courses suggested by the concerned Board of Studies.

**Skill Development Activities:** Under Skill development activities in a concerning course, the students should

- Interact with industry (small, medium, and large).
- Involve in research/testing/projects to understand their problems and help creative and innovative methods to solve the problem.
- Involve in case studies and field visits/ fieldwork.
- Accustom to the use of standards/codes etc., to narrow the gap between academia and industry.
- Handle advanced instruments to enhance technical talent.
- Gain confidence in modeling of systems and algorithms for transient and steady-state operations, thermal study, etc.
- Work on different software/s (tools) to simulate, analyze and authenticate the output to interpret and conclude.

All activities should enhance student's abilities to employment and/or self-employment opportunities, management skills, Statistical analysis, fiscal expertise, etc. Students and the course instructor/s to involve either individually or in groups to interact together to enhance the learning and application skills of the study they have undertaken. The students with the help of the course teacher can take up relevant technical –activities which will enhance their skill. The prepared report shall be evaluated for CIE marks

**NEW HORIZON COLLEGE OF ENGINEERING**  
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**Scheme of Teaching and Examinations for 2024 - 2026 BATCH (2024 Scheme)**

**II SEMESTER**

| Sl.No        | Course | Course Code | Course Title                         | Credit Distribution |          |          |          |           | CONTACT<br>T<br>HRS | CIE        | SEE        | TOTAL      |
|--------------|--------|-------------|--------------------------------------|---------------------|----------|----------|----------|-----------|---------------------|------------|------------|------------|
|              |        |             |                                      | L                   | T        | P        | S        | CREDITS   |                     |            |            |            |
| 1            | PCC    | 24SCS21     | Cloud Computing & Virtualization     | 3                   | 0        | 0        | 0        | 3         | 3                   | 50         | 50         | 100        |
| 2            | PCC    | 24SCS22     | Devops                               | 2                   | 0        | 0        | 1        | 3         | 3                   | 50         | 50         | 100        |
| 3            | PCC    | 24SCS23     | Artificial Intelligence              | 3                   | 0        | 0        | 0        | 3         | 3                   | 50         | 50         | 100        |
| 4            | PEC    | 24SCS24X    | Professional Elective - 1            | 3                   | 0        | 0        | 0        | 3         | 3                   | 50         | 50         | 100        |
| 5            | PEC    | 24SCS25X    | Professional Elective - 2            | 3                   | 0        | 0        | 0        | 3         | 3                   | 50         | 50         | 100        |
| 6            | PCCL   | 24SCL26     | Cloud Computing & Virtualization lab | 0                   | 0        | 2        | 0        | 2         | 4                   | 50         | 50         | 100        |
| 7            | PCCL   | 24SCSL27    | Devops lab                           | 0                   | 0        | 2        | 0        | 2         | 4                   | 50         | 50         | 100        |
| <b>TOTAL</b> |        |             |                                      | <b>14</b>           | <b>0</b> | <b>4</b> | <b>1</b> | <b>19</b> | <b>23</b>           | <b>350</b> | <b>350</b> | <b>700</b> |

**Note:** During the 1<sup>st</sup> semester, students should enroll 2 online courses (Minimum) and must finish the courses before 4<sup>th</sup> semester and the evaluation will take place during the 4<sup>th</sup> semester.

- Mini Project:** It can include hands-on practice, coding, mobile app development, and report preparation etc. CIE (Continuous Internal Evaluation) marks will be awarded by a committee comprising the HoD (Head of Department) as Chairman, the guide/co-guide (if any), and a senior faculty member of the department. All postgraduate students in the program must complete mini-project. **The CIE marks for Mini-Project work will be based on the evaluation of the Mini-Project work and Report, Presentation skills, and performance in the Question and Answer session, in the ratio 50:25:25.** Mini-Project is considered a passing requirement and is necessary for vertical progression and the award of the degree. Students who do not take up or complete the Mini Project will be declared as failing the course and will need to complete it during a subsequent semester.
- Internship:** All the students shall have to undergo a mandatory internship of **06 weeks during the vacation of II and III semesters.** A University examination shall be conducted during III semester and the prescribed internship credit shall be counted in the same semester. The internship shall be considered as a head of passing and shall be considered for vertical progression as well as for the award of degree. Those, who do not take-up/complete the internship shall be declared as fail in the internship course and have to complete the same during the subsequent University examination after satisfying the internship requirements.

| 242SCS24X - PROFESSIONAL ELECTIVE - 1 |                              | 24SCS25X - PROFESSIONAL ELECTIVE - 2 |                                          |
|---------------------------------------|------------------------------|--------------------------------------|------------------------------------------|
| Course code                           | Course Name                  | Course code                          | Course Name                              |
| 24SCS241                              | Design Thinking              | 24SCS251                             | Cyber Security Management                |
| 24SCS242                              | Microservices Design Pattern | 24SCS252                             | Software Project Management              |
| 24SCS243                              | Soft Computing               | 24SCS253                             | Recommender Systems                      |
| 24SCS244                              | Computer Vision              | 24SCS254                             | Entrepreneurship & Innovation Management |
| 24SCS245                              | Bioinformatics               | 24SCS255                             | Geographic Information Systems           |