



**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

26th Academic Council Meeting

AY 2024-2025

02nd 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

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

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

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I	Principal of the College - Chairman	1	Dr. Manjunatha .	
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		11	Dr. Srinivasa G	
		12	Mr. Rakesh Chandrashekar	

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 3rd Sem to be continued for 5th 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 6th 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 (3rd & 4th semester), 2022-26 (5th & 6th Semester) and 2021-25 (7th & 8th Semester) batches of AIML was proposed for approval by HOD-AIML
- Scheme & Syllabus for 2022-26 (5th & 6th Semester) and 2021-25 (7th & 8th Semester) batches of CE was proposed for approval by HOD-CE
- Scheme & Syllabus 2021-25 (7th & 8th Semester) batches of CIVIL was proposed for approval by HOD(In-charge)-CIVIL
- Scheme & Syllabus for 2023-27 (3rd & 4th semester), 2022-26 (5th & 6th Semester) and 2021-25 (7th & 8th Semester) batches of CSE was proposed for approval by HOD-CSE
- Scheme & Syllabus for 2023-27 (3rd & 4th semester) and 2022-26 (5th & 6th Semester) batches of CSE (DS) was proposed for approval by HOD-CSE(DS)
- Scheme & Syllabus for 2023-27 (3rd & 4th semester), 2022-26 (5th & 6th Semester) and 2021-25 (7th & 8th Semester) batches of ISE was proposed for approval by HOD-ISE
- Scheme & Syllabus for 2023-27 (3rd & 4th semester), 2022-26 (5th & 6th Semester) and 2021-25 (7th & 8th Semester) batches of ECE was proposed for approval by HOD-ECE
- Scheme & Syllabus for 2023-27 (3rd & 4th semester), 2022-26 (5th & 6th Semester) and 2021-25 (7th & 8th Semester) batches of EEE was proposed for approval by HOD-EEE
- Scheme & Syllabus for 2023-27 (3rd & 4th semester), 2022-26 (5th & 6th Semester) and 2021-25 (7th & 8th 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 1st year for 2024-25 batch was discussed in details. The following points were discussed:
- MCA 1st 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 2nd 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 8th 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 (Foundation) (60hrs)	Technology Course 2 (Advanced) (60hrs)	Job Opportunities
	Industry Certification Training +Exam (in 4 and 5 Semester)	Training for Industry Certification (in 6 and 7 Semester)	
DevOps	Microsoft Certified: Azure Developer Associate	Microsoft certified Designing and Implementing DevOps Solutions	DevOps Engineer in MNC like GoldmannSachs, Altran, Seimens, Capgemini Technology Services, TCS, HCL
Ethical Hacking and Forensic Investigator	EC-Council Certified Ethical Hacker (CEH)	Forensic Investigator Certification	Security Architect, Chief Information Security Officer (CISO), Security Analyst, Cyber Security Lead in Applied Systems General Motors, Sony Electronics, Verizon
Tableau	Tableau Desktop Specialist	Tableau Certified Data Analyst	Data Analyst, Data Scientist, Business Analyst, Business Intelligence Analyst, Business Intelligence Developer, Business Intelligence Manager in KPMG Deloitte, IBM, Wells Fargo, Accenture

AWS Cloud Architect	AWS Certified Cloud Practitioner	AWS Certified Solutions Architect	AWS Cloud Architect in Wipro, Infosys, MindTree
Full Stack Development	IBM Full Stack Software Developer Professional Certificate		Full Stack Developer, Software Engineer, Automation Engineer in MNC
Front End Verification of Digital VLSI Design	System Verilog training & Coursera Certification Program	Universal Verification Methodology (UVM) training	System Verilog Engineer, SoC Engineer, Design Verification Engineer in Intel
Embedded Systems Essentials with Arm and IoT Applications	ARM Certification Embedded Systems Essentials with ARM: Getting Started	ARM Certification Embedded Systems Essentials with Arm: Get Practical with Hardware	Embedded Software Engineer, Embedded Test Engineer, ARM Embedded Designer, ARM Embedded Developer
Digital Manufacturing Technologies	Indian Machine Tools Manufacturing Association (IMTMA) Certification on Manufacturing Technology, Trinity NDT Certification	Bosch Certification on Autotronics	Robotics Engineer, Mechanical Design Engineer, System & Solution 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 foe 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/ 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
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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. Gupta
 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/ 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/ 450	1100/ 1050
13	NCMC	22DMAT41*	Basic Applied Mathematics-II	BS	0	0	0	0	0	2	50	--	50

Chandini
5/6/24

May 16/2024 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.

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 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.Mayanth
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:

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 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	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. SEE in the above courses shall be conducted during VIII semester examinations and the accumulated CIE marks shall be added to the SEE marks. Successful completion of the registered course is mandatory for the award of the degree. The events shall to be reflected in the calendar prepared for the NSS, PE and Yoga activities.
	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.

Professional Elective Course-3			
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		

Dean Academics

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		

Dean Academics

Principal

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		

Dean Academics

Principal

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		

Dean Academics

Principal

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
Total								27	26	450	450	900

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							
Total								23	23	350	350	700

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
Total									24	18	350	350	700

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 3rd semester and attend the exam and submit the certificate. The evaluation will be carried out during fourth semester.

Sl No	Marketing Elective	Code		Sl No	Finance Elective	Code
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
Sl No	HR Elective	Code		Sl No	Logistics & Supply Chain Management	Code
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

Sl No	Artificial Intelligence & Data Science	Code
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	100
2	PEC	23MBAXX***	Elective 1	MBA	3	0	0	0	3	3	50	50	100
3	PEC	23MBAXX***	Elective 2	MBA	3	0	0	0	3	3	50	50	100
4	PEC	23MBAXX***	Elective 1	MBA	3	0	0	0	3	3	50	50	100
5	PEC	23MBAXX***	Elective 2	MBA	3	0	0	0	3	3	50	50	100
6	PCC	23MBA43	Dissertation	MBA	0	0	10	0	10	-	50	50	100
7	AUD	23AUD44*	AUD	AUD	0	0	4	0	Classes & Evaluation procedures are as per the policy of the online course providers				
Total									26	16	300	300	600

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.

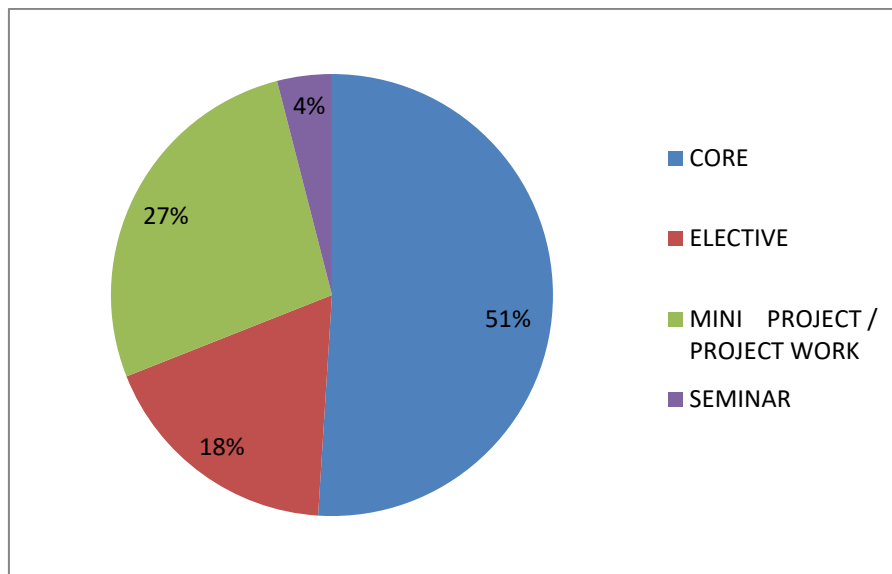
Sl No	Marketing Elective	Code		Sl No	Finance Elective	Code
1	Artificial Intelligence Tools in Digital Marketing	23MBAMM431		1	International Financial Management	23MBAFM441
2	Services Marketing	23MBAMM432		2	Commercial Bank Management	23MBAFM442
3	Marcomms @ Work	23MBAMM433		3	Forex & Treasury Management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

Sl No	HR Elective	Code		Sl No	Logistics & Supply Chain Management	Code
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

Sl No	Artificial Intelligence & Data Science	Code
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 PROJECT / PROJECT WORK	SEMINAR	TOTAL 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
TOTAL	51	18	27	4	100
% of Distribution	51%	18%	27%	4%	100%



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

S N O	BOARD / COURSE	COURSE CODE	COURSE	BOS	CREDIT DISTRIBUTION				OVERALL CREDITS	CONTACT HOURS 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) *Selected online courses will be given as per BOS recommendation. *PCC- Professional Core. IPCC-Integrated Professional Core Courses (No SEE for lab component only CIE), PCCL- Professional Core Lab, AEC- Ability Enhancement Course. *BoS recommended certified online courses is offered in 4 th semester													

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

S NO	BOARD/ COURSE	COURSE CODE	COURSE	BOS	CREDIT DISTRIBUTION				OVERALL CREDITS	CONTACT HOURS 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 AND ENTERPRISE ARCHITECTURE	MCA	3	0	0	0	3	3	50	50	100
3	MCA/PCC	24MCA23	DESIGN AND ANALYSIS OF ALGORITHMS	MCA	2	1	0	0	3	4	50	50	100
4	MCA/IPCC	24MCA24	COMPUTER NETWORKS	MCA	3	0	1	0	4	5	50	50	100
5	MCA/PEC	24MCA25X	PROFESSIONAL ELECTIVES-1	MCA	2	1	0	0	3	4	50	50	100
6	MCA/PEC	24MCA26X	PROFESSIONAL ELECTIVES-2	MCA	0	1	2	0	3	6	50	50	100
7	MCA/PCCL	24MCAL27	DATA STRUCTURES AND ALGORITHMS LAB	MCA	0	0	1.5	0	1.5	3	50	50	100
8	MCA/PCCL	24MCAL28	ADVANCED JAVA LAB	MCA	0	0	1.5	0	1.5	3	50	50	100
9	MCA/MP	24MCAL29	MINI PROJECT USING JAVA AND DBMS	MCA	0	0	2	0	2	-	50	50	100
10	LS/AEC	22HSSC210	LIFE SKILLS FOR 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) *Selected online courses MCA/PCC will be given as per BOS recommendation. *PCC- Professional core. IPCC- Integrated Professional Core Courses (No SEE for lab component only CIE), MP- Mini Project, PEC- Professional Elective Courses.													
*BoS recommended certified online courses is offered in 4 th 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 N O	BOARD/ COURSE	COURSE CODE	COURSE	BOS	CREDIT DISTRIBUTION				OVERALL CREDITS	CONTACT HOURS WEEKLY (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) PCC- Professional Core, PEC-Professional Elective Course, PCCL- Professional Core Course Lab, SP- Societal Project, INT – Internship (06 weeks Internship to be completed in intervening vacation of Semester II and Semester III), SEM- SEMINAR													

PROFESSIONAL ELECTIVES - 3								
S NO	COURSE CODE	COURSE	BOS	CREDIT 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 NO	COURSE CODE	COURSE	BOS	CREDIT 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 VIRTUAL REALITY	MCA	3	0	0	0	3
4	22MCA344	MOBILE APPLICATION DEVELOPMENT	MCA	3	0	0	0	3
5	22MCA345	AGILE SOFTWARE 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
L -Lecture (1 hour), T- Tutorial (2 hours), P-Practical (2 hours), S-Self Study (hours – Nil) PEC-Professional Elective Course, SEM-Seminar, PROJ- Project Work, AUD/AEC – Audit Course / Ability Enhancement Course. OEC-Industrial Open Elective Course, 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. 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.													

PROFESSIONAL ELECTIVES – 5								
S NO	COURSE CODE	COURSE	BOS	CREDIT 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 INNOVATION MANAGEMENT	MCA	3	0	0	0	3
4	22MCA414	DIGITAL MARKETING	MCA	3	0	0	0	3
5	22MCA415	SOFTWARE PROJECT MANAGEMENT	MCA	3	0	0	0	3

OPEN ELECTIVE COURSES								
S NO	COURSE CODE	COURSE	BOS	CREDIT DISTRIBUTION				TOTAL
				L	T	P	S	
1	20NHOP601	BIG DATA ANALYTICS USING HP VERTICA-1	MCA	3	0	0	0	3
2	20NHOP602	VM WARE VIRTUALISATION ESSENTIALS-1	MCA	3	0	0	0	3
3	20NHOP614	BLOCKCHAIN	MCA	3	0	0	0	3
4	20NHOP728A	DATABASE ADMINISTRATION 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
TOTAL				13	1	4	2	19	25	350	350	700

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

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II SEMESTER

Sl.No	Course	Course Code	Course Title	Credit Distribution					CONTACT T 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
TOTAL				14	0	4	1	19	23	350	350	700

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