B.V.V.S
BASAVESHWARENGINEERINGCOLLEGE, BAGALKOTE-587102
Department of Computer Applications (MCA)

BVVS

MCA–I Semester Scheme of teaching and examinations for 2024-2025

Sl. No.	Course	Subject Code	Subject	Credits	Hours/Week			Examination Marks		
					Lecture	Tutorial /SDA	Practical/ Seminar	CIE	SEE	Total
1.	IPCC	PCAA101C	Programming and Problem Solving in C	4	2	-	2	50	50	100
2.	BSC	PCAA102C	Discrete Mathematics and Graph Theory	3	2	1	-	50	50	100
3.	PCC	PCAA103C	Database Management Systems (DBMS)	3	3	-	-	50	50	100
4.	PCC	PCAA104C	Operating System	3	2	1	-	50	50	100
5.	PCC	PCAA105C	Web Technologies	3	3	-	-	50	50	100
6.	PCCL	PCAA106L	DBMS and Web Technologies Laboratory	2	-	2	2	50	50	100
7.	NCMC	PCAA****	Research Methodology and IPR(Online)	PP	Online Courses(online.vtu.ac.in)					
8.	**NCMC**	**PCAA******	**Mathematics for MCA Students**	PP	2	-	2	100	-	100
			Total	18	14	05	06	300	300	600

Note:**BSC**-BasicScienceCourses,**PCC**:Professionalcore.**IPCC**-IntegratedProfessionalCoreCourses,**PCC(PB):**ProfessionalCoreCourses(ProjectBased),**PCCL**-ProfessionalCoreCourselab,**NCMC**-NoneCreditMandatoryCourse,,**L**-Lecture,**P**-Practical,**T/SDA**-Tutorial/SkillDevelopmentActivities(Hours are for Interaction between faculty and students NCMC- Research Methodology and IPR (**Online**) for the students who have **not studied** this course in the Under graduate level .This course is not counted for vertical progression; Students have to qualify for the award of the master's degree.

BSC: Basic Science Courses: Courses like Mathematics/ Science are the prerequisite courses that the concerned engineering stream board of Studies will decide.**PCC: Professional Core Course:** Courses related to the stream of engineering, which will have both CIE and SEE components, students have to qualify in the course for the award of the degree. **Integrated Professional Core Course (IPCC)**: Refers to a Professional Theory Core Course Integrated with practical of the same course. The IPCC's theory part shall be evaluated 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 .**Project Based Learning Course (PCC (PB):** Project Based Learning course is a professional core Course only Students have to complete a project out of learning from the course and SEE will be viva voce on project work. **PCCL: Professional Core Course Laboratory:** Practical courses whose CIE will be evaluated by the class teacher and SEE will be evaluated by the two examiners.

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

1. Interact with industry (small, medium, and large).
2. Involve in research/testing/projects to understand their problems and help creative and innovative methods to solve the problem.
3. Involve in case studies and field visits/fieldwork.
4. Accustom to the use of standards/codes etc. to arrow the gap between academia and industry.
5. Handle advanced instruments to enhance technical talent.
6. Gain confidence in the modeling of systems and algorithms for transient and steady- state operations, thermal study etc.
7. 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/share to be involved either individually or in groups to interact together to enhance the learning and application skills of the study they have under taken. The students with the help of the course teacher can take up relevant technical –activities that will enhance their skills. The prepared report shall be evaluated for CIE marks.

NCMC- Research Methodology and IPR- None Credit Mandatory Course (NCMC) if students have not studied his course in their under graduate program then he/she has to take this Course at **http://online.vtu.ac.in** and to qualify for this course is compulsory before completion of the minimum duration of the program (Two years), however, this course will not be considered for vertical progression.

Bridge Course: Non-Credit Mandatory Course -Mathematics for MCA Students: 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. However, this course/subject will not be considered for vertical progression

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MCA-II Semester Scheme of teaching and examinations for 2024-2025

Sl. No.	Course	Subject Code	Subject	Credits	Hours/Week			Examination Marks		
					Lecture	Tutorial / SDA	Practical	CIE	SEE	Total
1.	IPCC	PCAA201C	Machine Learning and Data Analytics using python	4	2	-	2	50	50	100
2.	PCC	PCAA202C	Object Oriented Programming using JAVA	4	4	-	-	50	50	100
3.	PCC	PCAA203C	Data Structure and Algorithms	4	4	-	-	50	50	100
4.	PCC	PCAA204C	Software Engineering	3	2	2	-	50	50	100
5.	PCC	PCAA205C	Web Application Development	3	2	-	1	50	50	100
6	PCCL	PCAA206L	Object Oriented Programming using JAVA Laboratory	2	-	-	2	50	50	100
7.	PCCL	PCAA207L	Data Structure and Algorithms Laboratory	2	-	2	2	50	50	100
8.	NCMC	PCA AXXXX	Ability Enhancement Course With Seminar -I	PP						
			Total	**22**	**14**	**08**	**07**	**350**	**350**	**700**

Note: BSC-Basic Science Courses, PCC: Professional core. IPCC-Integrated Professional Core Courses, PCC(PB): Professional Core Courses (Project Based), PCCL- Professional Core Course lab ,NCMC- None Credit Mandatory Course, ,L-Lecture, P-Practical, T/SDA-Tutorial / Skill Development Activities(Hours are for Interaction between faculty and students) Research Methodology and IPR (Online) for the students who have not studied this course in the Undergraduate level. This course is not counted for vertical progression, Students have to qualify for the award of the master's degree.

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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 are to be involved 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 that will enhance their skills. The prepared report shall be evaluated for CIE marks.

Ability Enhancement Courses with Seminar-I - None Credit Mandatory Course (NCMC), Students have to select the Topic like ERP, R Programming, Scripting language, Web Development Application, etc. They have to develop a small prototype and demonstrate to all the class.