गुरु घासीदास विश्वविद्यालय
(केन्द्रीय विश्वविद्यालय अधिनियम 2009 क्र. 25 के अंतर्गत स्थापित केन्द्रीय विश्वविद्यालय)
कोनी, बिलासपुर – 495009 (छ.ग.)

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**Koni, Bilaspur – 495009 (C.G.)**

# List of New Course(s) Introduced

| Department | : *Department of Computer Science & Information* |
|---|---|
| **Programme Name** | : *Bachelor of Computer Application (BCA)* |

## Academic Year : 2023-2024

## List of New Course(s) Introduced

| Sr. No. | Course Code | Name of the Course |
|---|---|---|
| 01. | CAUAMJT1 | Programming using C- Theory |
| 02. | CAUAMJL1 | Programming using C - Lab |
| 03. | CAUMNT1 | Programming Fundamental – Theory |
| 04 | CAUMNT1 | Programming Fundamental – Lab |
| 05. | MDCCI1 | Information and Communication Technology |
| 06. | SECCI1 | Office Automation |
| 07. | VACCI1 | Cyber Education and Awareness |
| 08. | CAUBMJT1 | Data Structure & Algorithm - Theory |
| 09. | CAUBMJL1 | Data Structure & Algorithm- Lab |
| 10. | CAUBMNT1 | Introduction to operating System – Theory |
| 11. | MDCCI2 | Basics of Artificial Intelligence |
| 12. | SECCI2 | Fundamental of Programming Using C |
| 13. | VACCI2 | Digital Awareness |
| 14. | CAUCMJT1 | Database Management System |
| 15. | CAUCMJL1 | Lab Based on DBMS |
| 16. | CAUCMJT2 | Principals of Operating System |
| 17. | CAUCMNT1 | Python Programming |
| 18. | MDCCI3 | Data Science |
| 19. | AECCLI1 | Machine Learning |
| 20. | SECCI3 | DBMS |
| 21. | CAUDMJT1 | Object Oriented Programming Using Java |
| 22. | CAUDMJL1 | Lab Bawd on JAVA |
| 23. | CAUDMJT2 | Discrete Structures |
| 24. | CAUDMJT3 | WEB Application Design using PHP |
| 25. | AECCI2 | Basics of Animation |

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## Minutes of Meetings (MoM) of Board of Studies (BoS)

| | |
|---|---|
| **Academic Year : 2023-24** | |
| **School** | : *Studies of Mathematical and Computational Science* |
| **Department** | : *Department of Computer Science & Information* |
| **Date and Time** | : |
| **Venue** | : |

### Meeting Minutes of Board of Studies

The Meeting of Board of studies(BoS) for CSIT department was conducted on 15/07/2024 at 11.30 A.M in hybrid mode. Following Members were invited in meeting.

1. Dr Ratnesh Prasad Srivastava – Chairman BoS CSIT
2. Prof Amit Kumar Saxena – Internal Member BoS CSIT
3. Prof B V R Reddy - Member (External expert BoS CSIT)
4. Mr. Kapil Sharma - Member (External Industry expert BoS CSIT)
5. Mr. Amitesh Kumar Jha- - Internal Member BoS CSIT
6. Dr Girish Kumar Singh - Special invitee
7. Dr Shrabanti Mandal - Special invitee
8. Dr Pushpa Lata Pujari - Special invitee
9. Dr Babita Majhi - Special invitee
10. Dr Santosh kumar Mahji - Special invitee
11. Dr Rajwant Singh Rao - Special invitee
12. Dr Sushma Jaiswal - Special invitee
13. Dr Akhilesh Shrivas - Special invitee
14. Mr Abhishek Patel - Special invitee
15. Mr Prashant Vaishnav - Special invitee
16. Mr Vivek Sarathe - Special invitee
17. Dr Vikas Pandey - Special invitee
18. Dr Vineet Awasthi - Special invitee
19. Mr Shreemant Kumar Dash - Special invitee

The following agendas were discussed in the meeting:

**Agenda 1.** Discussion on design of BCA 03/04 year degree course under NEP 2020 to finalize the syllabus (to be implemented from the session 2024-25)..

**Resolution:** All the members and invitees reviewed the above note and Annexures presented in the meeting. Members agreed with the Course Code designed as per prescribed format of GGV and marks scheme for BCA upto Fourth semester under NEP effective from session 2024 -25 **(Annexure I).** The external member Mr. Kapil Sharma suggested to introduce advance programming language like .net & Java in further semester curriculum. He mentioned that the current structure for BCA is good and as per NEP and subjects like cyber awareness are as per current trends

**Agenda 2.** Discussion on designing of curriculum for B.Sc. (Computer Science). 03/04 year degree course under NEP 2020 to finalize the syllabus (to be implemented from the session 2024-25).

**Resolution:** All the members and invitees reviewed the above note and Annexure II presented in the meeting. Members agreed with the Course Code designed as per prescribed format of GGV and marks scheme for B.Sc.(Computer Science) upto Fourth semester under NEP from session 2024-25 **(Annexure II).** The external member Mr. Kapil Sharma suggested to introduce subjects like testing and cloud computing for students of B.Sc.(Computer Science) in further semesters as per current trends.

**Agenda 3.** . Discussion on designing of curriculum for M.Sc. (Computer Science) 02 year degree course (to be implemented from the session 2024-25).

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**Resolution**: All the members and invitees reviewed the above note and Annexure III presented in the meeting. Members agreed with the Course Code designed as per prescribed format of GGV and marks scheme for M.Sc.(Computer Science) effective from session 2024-25. The open elective was previously offered in Third semester which will be now offered in First Semester. Also in Third Semester in place of Open elective Advance Java Programming will be taught. Also MOOC will be available as alternative to this subject and student may opt for any MOOC course with same Credits, which is not offered in their curriculum. It was discussed and agreed in meeting that the for students admitted in session 2023-24 there will be no change in syllabus.

**Agenda 4.** . Discussion on designing of curriculum for MCA 02 year degree course..

**Resolution**: All the members and invitees reviewed the above note and Annexure IV presented in the meeting. Members agreed with the Course Code designed as per prescribed format of GGV and marks scheme for MCA Computer Science course (all semester) effective from 2021-22 with MOOC as an option in Elective –IV in Third Semester. Student may opt for any MOOC course with same Credits, which is not offered in their curriculum.

**Agenda 5.** Discussion on syllabus structure of BCA effective from session 2022-23 (all semester) with no change and content of 5th semester subjects (for already running courses Before NEP)
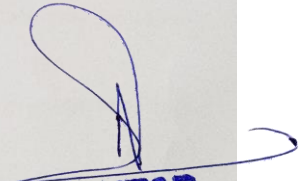
**Resolution**: All the members and invitees reviewed the above note and Annexure V presented in the meeting. Members agreed with the Course Code designed as per prescribed format of GGV and marks scheme for BCA Course (all semester) effective from session 2022-23 with no change. Member and invitees also reviewed and approved the course content for approved titles for BCA Vth semester running from session 2022-23 as presented.

**Agenda 6.** . Discussion on syllabus structure of B.Sc. Computer Science effective from session 2021-22 (all semester) with changes in VI Semester(for already running courses Before NEP)

**Resolution**: All the members and invitees reviewed the above note and Annexure VI presented in the meeting. Members agreed with the Course Code designed as per prescribed format of GGV and marks scheme for B.Sc. Computer Science Course (all semester) effective from session 2022-23. As per CBCS and LoCF directions, the structure for VI semester will be changed as per Annexure VI. Now only one Discipline Specific Elective will be offered in VI Semester and also Student has to give seminar of 2 Credits.

Copy to:
1. External Member of B.O.S, Professor. Prof. Bommareddy Venkata Ramana Reddy, Department of Computer Applications, MITS, Gwalior (M.P) & Director NIT Kurukshetra
2. Chairman of B.O.S, HOD, CSIT, Dr Ratnesh Prasad Srivastava
3. Internal member of B.O.S, Professor. A.K. Saxena, Department of CSIT, GGV.
4. External Industry expert Member of B.O.S, Shri Kapil Sharma, HCL technologies, Singapore
5. Internal member of B.O.S, Shri Amitesh Kumar Jha, Dept.of CSIT, GGV.
6. Dean School of Studies of Mathematical and Computational Sciences, Department of CSIT.
7. Finance Officer, GGV, Bilaspur for information and necessary action.
8. Assistant Registrar, Academic, GGV, Bilaspur for information and necessary action.
9. All Faculties of CSIT Depaartment.
10. Office of the CSIT.

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Annexure I

# DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY

## Syllabus for Bachelor of Computer Application

## VISION

The Department of Computer Science & Information Technology strives to be a leading world class science and technology department with excellence in creating, applying, and imparting theoretical, experimental, and applied knowledge through comprehensive educational programs and collaborative research, playing its role as a key node in national and global network to empower the industry and society with the wings of knowledge and power of innovation.

## MISSION

1. To nurture the talent of students for research, innovation and excellence in the field of Computer Science & Information Technology.
2. To develop highly analytical and qualified computer professionals by giving hands-on training on cutting-edge technology.
3. To produce socially responsible computer professionals with professional ethics.
4. To focus on R&D environment in close partnership with industry and academia globally.
5. To produce up-to date, scientifically tempered, design oriented engineers and scientists capable of lifelong learning.

## PROGRAM EDUCATIONAL OBJECTIVES (PEOS) PEO

PEO 1. To acquire in-depth knowledge of software techniques, which provide a strong foundation to pursue continuing education and nurture the talent for innovation and research.

PEO 2. To nurture the talent in leadership qualities, at an appropriate level in order to address the issues in a responsive, ethical and innovative manner.

PEO 3. To excel in careers by being a part of success and growth of an organization with whom they will be associated.

PEO 4. To inculcate the ability for lifelong learning by active participation in self-study courses, seminars, research projects.

Signature & Seal of HoD

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## Scheme and Syllabus

### Semester 1

| Course | Course Code | Course Title | Credit | L | T | P | IA | ESE | Total |
|---|---|---|---|---|---|---|---|---|---|
| Major | CAUAMJT1 | Programming using C -Theory | 3 | 3 | - | - | 30 | 70 | 100 |
| Major | CAUAMJL1 | Programming using C - Lab | 1 | - | - | 1 | 30 | 70 | 100 |
| | | **Total Credit** | 4 | 3 | - | 1 | 60 | 140 | 200 |

**Courses offered by other Department**

| Course | Course Code | Course Title | Credit | L | T | P | IA | ESE | Total |
|---|---|---|---|---|---|---|---|---|---|
| Minor | | | 4 | | | | | | |
| MDC | | | 3 | | | | | | |
| AEC | | | 2 | | | | | | |
| SEC | | | 3 | | | | | | |
| VAC-1 | | | 2 | | | | | | |
| VAC-2 | | | 2 | | | | | | |
| | | **Total Credit** | 20 | | | | | | |

**Courses offered for other Department**

| Course | Course Code | Course Title | Credit | L | T | P | IA | ESE | Total |
|---|---|---|---|---|---|---|---|---|---|
| Minor | CAUAMNT1 | Programming Fundamental -Theory | 3 | 3 | - | - | 30 | 70 | 100 |
| Minor | CAUAMNT1 | Programming Fundamental -Lab | 1 | - | - | 1 | 30 | 70 | 100 |
| MDC | MDCCI1 | Information and Communication Technology | 3 | 3 | - | - | 30 | 70 | 100 |
| SEC | SECCI1 | Office Automation | 3 | 2 | - | 1 | 30 | 70 | 100 |
| VAC | VACCI1 | Cyber Education and Awareness | 2 | 2 | - | - | 30 | 70 | 100 |

### Semester 2

| Course | Course Code | Course Title | Credit | L | T | P | IA | ESE | Total |
|---|---|---|---|---|---|---|---|---|---|
| Major | CAUBMJT1 | Data Structure& Algorithm - Theory | 3 | 3 | - | - | 30 | 70 | 100 |
| Major | CAUBMJL1 | Data Structure& Algorithm - Lab | 1 | - | - | 1 | 30 | 70 | 100 |
| | | **Total Credit** | 4 | 3 | - | 1 | 60 | 140 | 200 |

**Courses offered by other Department**

| Course | Course Code | Course Title | Credit | L | T | P | IA | ESE | Total |
|---|---|---|---|---|---|---|---|---|---|
| Minor | | | 4 | | | | | | |
| MDC | | | 3 | | | | | | |
| AEC | | | 2 | | | | | | |
| SEC | | | 3 | | | | | | |
| VAC-1 | | | 2 | | | | | | |
| VAC-2 | | | 2 | | | | | | |
| | | **Total Credit** | 20 | | | | | | |

**Courses offered for other Department**

| Course | Course Code | Course Title | Credit | L | T | P | IA | ESE | Total |
|---|---|---|---|---|---|---|---|---|---|
| Minor | CAUBMNT1 | Introduction to operating System - Theory | 4 | 4 | - | - | 30 | 70 | 100 |
| MDC | MDCCI2 | Basics of Artificial Intelligence | 3 | 3 | - | - | 30 | 70 | 100 |
| SEC | SECCI2 | Fundamental of Programming Using C | 3 | 2 | - | 1 | 30 | 70 | 100 |
| VAC | VACCI2 | Digital Awareness | 2 | 2 | - | - | 30 | 70 | 100 |

### Semester 3

| Course | Course Code | Course Title | Credit | L | T | P | IA | ESE | Total |
|---|---|---|---|---|---|---|---|---|---|
| Major | CAUCMJT1 | Database Management System | 3 | 3 | - | - | 30 | 70 | 100 |
| Major | CAUCMJL1 | Lab based on DBMS | 1 | - | - | 1 | 30 | 70 | 100 |
| Major | CAUCMJT2 | Principals of Operating Systems | 4 | 4 | - | - | 30 | 70 | 100 |

**Courses offered by other Department**

| Course | Course Code | Course Title | Credit | L | T | P | IA | ESE | Total |
|---|---|---|---|---|---|---|---|---|---|
| Minor | | | 4 | | | | | | |
| MDC | | | 3 | | | | | | |
| AEC | | | 2 | | | | | | |
| SEC | | | 3 | | | | | | |
| | | **Total Credit** | 20 | | | | | | |

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### Courses offered for other Department

| Minor | CAUCMNT1 | Python Programming | 4 | 3 | - | 1 | 30 | 70 | 100 |
|---|---|---|---|---|---|---|---|---|---|
| MDC | MDCC13 | Data Science | 3 | 3 | - | - | 30 | 70 | 100 |
| AEC | AECC11 | Machine Learning | 2 | 2 | - | 1 | 30 | 70 | 100 |
| SEC | SECC13 | DBMS | 3 | 4 | - | - | 30 | 70 | 100 |

### Semester 4

| Course | Course Code | Course Title | Credit | L | T | P | IA | ESE | Total |
|---|---|---|---|---|---|---|---|---|---|
| Major | CAUDMJT1 | Object Oriented Programming using Java | 3 | 3 | - | - | 30 | 70 | 100 |
| Major | CAUDMJL1 | Lab Based on JAVA | 1 | - | - | 1 | 30 | 70 | 100 |
| Major | CAUDMJT2 | Discrete Structures | 5 | 3 | - | 1 | 30 | 70 | 100 |
| Major | CAUDMJT3 | WEB Application Design using PHP | 5 | 3 | - | 1 | 30 | 70 | 100 |

### Courses offered by other Department

| Minor | | | 4 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| AEC | | | 2 | | | | | | |
| | | Total Credit | 20 | | | | | | |

### Courses offered for other Department

| Minor | CAUDMNT1 | Web Technology | 4 | 3 | - | 1 | 30 | 70 | 100 |
|---|---|---|---|---|---|---|---|---|---|
| AEC | AECC12 | Basics of Animation | 3 | 2 | - | 1 | 30 | 70 | 100 |

Note: The structure, marking scheme, courses can be changed by university/statutory body's directions whenever required.

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