



**INDIRA GANDHI NATIONAL OPEN UNIVERSITY**  
**REGIONAL CENTRE : VIJAYAWADA**  
**PROGRAMMES ON OFFER IN COMPUTER APPLICATIONS**

<b>Certificate in Information Technology</b>	<b>CIT</b>
<b>Bachelor of Computer Applications</b>	<b>BCA</b>
<b>Master of Computer Applications</b>	<b>MCA</b>

***The University :***

The Indira Gandhi National Open University (IGNOU), established by an Act of Parliament in 1985, has continuously striven to build an inclusive knowledge society through inclusive education. It has tried to increase the Gross Enrollment Ratio (GER) by offering high-quality teaching through the Open and Distance Learning (ODL) mode. It has been conferred with the awards of 'Centre of Excellence' and 'Excellence for Distance Education Materials' by the Commonwealth of Learning which is the highest forum for Open Distance Learning in the Common Wealth countries.

The University began by offering two academic programmes in 1987, i.e., Diploma in Management and Diploma in Distance Education, with a strength of 4,528 students. Today, it serves the educational aspirations of over 208 million students in India and 36 other countries through 21 Schools of Studies and a network of 62 Regional Centres, more than 3,000 Learner Support Centres and 67 overseas centres. The University offers more than 400 Certificate, Diploma, Degree and Doctoral programmes, with a strength of 560 faculty members and academic staff at the Headquarters and Regional Centres. More than 51,000 faculty and other professionals of conventional institutions of higher learning, professional organisations, industry etc are associated with the University in imparting education in ODL mode.

**Recognition :** IGNOU is a Central University created by an act of Parliament and all Certificates, Diplomas and Degrees awarded by the University are at par with all such degrees issued by other Universities under the Association of Indian Universities (AIU) as per the University Grants Commissions (UGC) circular no. F.1-52/2000 (CPP-II) dated May 5, 2004 and AIU circular no. EV/II/(449/94/176915-177915, dated January 14, 1994) and AICTE circular no. AICTE/academic/Nov.Dec. 2005, dated May 13, 2005.

***Regional Centre, Vijayawada :***

Indira Gandhi National Open University established a Regional Centre at Vijayawada, an economically, culturally and politically vibrant city in Krishna District, Andhra Pradesh. IGNOU Regional Centre, Vijayawada is carved out of Regional Centre, Hyderabad and it became operational in July 2008.

**INFORMATION BROCHURE**

## BACHELOR OF COMPUTER APPLICATIONS (BCA)

### Programme Objectives :

- ❖ To open a channel of admission for computing courses for students, who have done the 10+2 and are interested in taking computing as a career.
- ❖ To provide further education opportunity to take up a Master's Degree programme in IGNOU or any other University.

**Eligibility:** 10+2 or its equivalent.

### Programme Structure and Duration :

The programme can be completed in a minimum period of 3 years and a maximum period of 6 years. It has 6 semesters. Each semester is of 6 months duration. The programme deals with various courses such as :

**1<sup>st</sup> Semester :** Foundation course in English-2 (FEG-02), Business Organization (ECO-01), Computer Basics and PC Software (BCS-011), Mathematics (BCS-012), Lab Computer Basics and PC Software (BCSL-013).

**2<sup>nd</sup> Semester :** Accountancy -1 (ECO-02), Problem Solving and Programming (MCS-011), Computer Organization and Assembly Language Programming (MCS-012), Communication Skills (MCS-015), Discrete Mathematics (MCS-013), C Language Programming Lab (BCSL-021), Assembly Language Programming Lab (BCSL-022).

**3<sup>rd</sup> Semester :** Data and File Structures (MCS-021), Introduction to Database Management Systems (MCS-023), System Analysis and Design (MCS-014), Programming in C++ (BCS-031), C++ Programming Lab (BCSL-032), Data and File Structures Lab (BCSL-033), DBMS Lab (BCSL-034).

**4<sup>th</sup> Semester :** Statistical Techniques (BCS-040), Object Oriented Technologies and Java Programming (MCS-024), Fundamentals of Computer Networks (BCS-041), Introduction to Algorithm Design (BCS-042), Internet Concepts and Web Design (MCSL-016), Java Programming Lab (BCSL-043), Statistical Techniques Lab (BCSL-044), Algorithm Design Lab (BCSL-045).

**5<sup>th</sup> Semester :** Introduction to Software Engineering (BCS-051), Network Programming and Administration (BCS-052), Web Programming (BCS-053), Computer Oriented Numerical Techniques (BCS-054), Business Communication (BCS-055), Network Programming and Administration Lab (BCSL-056), Web Programming Lab (BCSL-057), Computer Oriented Numerical Techniques Lab (BCSL-058).

**6<sup>th</sup> Semester :** E-Commerce (BS-062), Operating System Concepts and Networking Management (MCS-022), Operating System Concepts and Networking Management Lab (BCSL-063), Project (BCSP-064).

**Medium of Instruction :** English      **Number of Courses:** 39      **Number of Credits:** 99

For theory counseling session there is no compulsion of attendance. However in counselling sessions of Lab courses, 70 per cent attendance is compulsory and the student should submit all assignments according to the prescribed schedule before appearing for the Term end Examination.

### Programme Fee :

Rs. 5,000/- Per Semester.

Learners are required to Re-register for 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup> and 6<sup>th</sup> semester for continuous study.

**Admission cycles :** The University offers round the year walk-in-admission. Most of the academic programmes are offered in both the cycles of admission i.e., January and July cycles. Admissions to the academic programmes are under three modes i.e., through entrance examination, merit and direct admission, depending on the nature of the programme. Admission notifications are issued in leading national and regional dailies for Walk in Admission during April-May for July session and October-November for January session. The detailed information on admission and application forms are available on the University website at [www.ignou.ac.in](http://www.ignou.ac.in) . Filled in applications are to be submitted to Regional Centre, Vijayawada with the requisite fee as per university guidelines.

**Reimbursement of Fees :** Learners who belong to the categories of Scheduled Castes (SC), Scheduled Tribes (ST) and Physically challenged have to pay the fee at the time of admission. Subsequently they will have an opportunity to collect the scholarship forms from the Social Welfare Department of the State, and submit the same duly filled-in, through the Regional Director for reimbursement.

## **PROGRAMMES ON OFFER IN COMPUTER APPLICATIONS**

### **CERTIFICATE IN INFORMATION TECHNOLOGY (CIT)**

This programme aims to introduce the concepts of Hardware, Software, Multimedia and Internet technologies. Also, included is a laboratory course where the student gets hands on experience. Broadly the programme deals with theory and skill development aspects given as :

Algorithms and flowcharts for problem solving; Computer communication; Concept of Networking; Software concerns and software vulnerabilities; Social, legal and ethical aspects of IT; IT in various fields like (such as Business, Governance; Education and Medicine; Concept of Information System); Internet (design of a web page), Multimedia; MS-Windows and Linux; C language; word processing; databases and Web Pages, etc.

**Eligibility :** 10<sup>th</sup> Standard or SSC or IGNOU's BPP or Microsoft's DLC or equivalent.

**Programme Schedule and Duration :** CIT programme has 18 credits and four courses such as Fundamentals of Computer Systems (CIT-001), Introduction to Information Technology (CIT-002), Web based Technologies and Multimedia Applications (CIT-003) and Laboratory Course (CITL-001).

A student needs to attend at least twelve out of eighteen practical counselling sessions (each session is of 3 hours duration) to be eligible to appear for Term End Practical Examination in CITL-001. Attendance is not compulsory for Theory Counselling Sessions but the student should submit all assignments according to the prescribed schedule before appearing for the Term end Examination.

The programme can be completed in a minimum period of 3 Months and a maximum period of 2 years.

**Programme Fee :** Rs. 4,000/- **Minimum Age :** No bar **Maximum Age :** No bar

The Regional Centre, Vijayawada comprises 5 districts viz, Krishna, Guntur, Prakasam, Nellore of Coastal Andhra and Chittoor District of Rayalaseema Region. The Regional Centre is headed by a Regional Director who is supported by a team of Academic, Administrative and other supporting staff. The Regional Centre, Vijayawada registers students and provides student support services through the network of study centres across five districts in the region as detailed below :

### **LEARNER SUPPORT CENTRES IN VIJAYAWADA REGION**

<b>Sl.No</b>	<b>Code No.</b>	<b>Study Centre</b>	<b>Contact Details</b>
1	IGNOU Study Centre-0102	V.R.College, Nellore- 524 001	0861-2301316, 2322226
2	IGNOU Study Centre-0103	KBN College, Kothapeta,Vijayawada-520 001	0866-2566015
3	IGNOU Study Centre-0104	TJPS College Ring Road, Guntur-522 006	0863-2244955
4	IGNOU Study Centre-0159	Sri Padmavathi Mahila Vishwavidyalayam, Tirupati-517502	0877-2284593
5	IGNOU Study Centre-33022	TRR Govt. Degree College, Kandukuru-523105	08598-223546

The above are the Learner Support Centres of Vijayawada Region of IGNOU. For all practical purposes, these study centres are the colleges of the University. The infrastructure and other services of the college/institution are utilized by IGNOU in the weekends and also in the non-working hours of the college/institution. The Study Centre provides, the following support services to its learners :

- ❖ **Sale of Student Handbook and Prospectus.**
- ❖ **Pre-admission counseling.**
- ❖ **Conduct of Induction meeting for newly registered learners.**
- ❖ **Preparation and organizing theory and practical/lab counseling sessions.**
- ❖ **Arrange audio and video programmes and teleconferencing.**
- ❖ **Organise workshops, seminars, extended contact programmes, field visits, teaching practice etc., depending on the nature of the programme.**
- ❖ **Provides library facility to the learners.**
- ❖ **Evaluation of assignments and awarding grades/marks and feedback to the learners.**
- ❖ **Conducting Term End Examinations and Practical Examinations (in case the centre has been allotted Examination Centre).**

## MASTER OF COMPUTER APPLICATIONS (MCA)

### Programme Objectives

- ❖ To prepare graduate students for productive careers in the software industry and academics.
- ❖ To give students a thorough and sound background in theoretical and application oriented courses relevant to latest computer software development.
- ❖ Application of software technology to solve mathematics, computing, communication / networking and commercial problems.

**Eligibility :** Any graduate form a recognized university; Students who have done 10+2 without Mathematics are required to pursue CS-60 in the first semester of MCA.

**Programme, Structure and Duration :** A student can complete all the courses in a minimum period of 3 years and a maximum period of 6 years. It has 6 semesters. Each semester is of 6 months duration. The programme deals with various courses such as :

**1<sup>st</sup> Semester :** Problem Solving and Programming (MCS-011), Computer Organization and Assembly Language Programming (MCS-012), Discrete Mathematics (MCS-013), System Analysis and Design (MCS-014), Communication Skills (MCS-015), Internet Concepts and Web design (Lab Course) (MCSL-016), Lab (C and Assembly Language Programming) (lab Course) (MCSL-017).

**2<sup>nd</sup> Semester :** Data and File structures (MCS-021), Operating System Concepts (MCS-022), Introduction to Database Management Systems (MCS-023), Object Oriented Technologies and Java Programming (MCS-024), Lab (Basing on MCS-021, 022, 023 and 024 courses) (MCSL-025).

**3<sup>rd</sup> Semester :** Design and Analysis of Algorithms (MCS-031), Object Oriented Analysis and Design (MCS-032), Advanced Discrete Mathematics (MCS-033), Software Engineering (MCS-034), Accountancy and Financial Management (MCS-035), Laboratory Course (MCSL-036).

**4<sup>th</sup> Semester :** \_Operating Systems (MCS-041), Data Communication and Networks (MCS-042), Advanced Database Management Systems (MCS-043), Mini Project (MCS-044), UNIX and DBMS LAB (MCSL-045).

**5<sup>th</sup> Semester :** Advanced Internet Technologies (MCS-051), Principles of Management and Information Systems (MCS-052), Computer Graphics and Multimedia (MCS-053), Laboratory Course (Advanced Internet Technologies & Computer Graphics and Multimedia) (MCSL-054), Artificial Intelligence and Knowledge Management (MCSE-003), Numerical and Statistical Computing (MCSE-004), Parallel Computing (MCSE-011).

**6<sup>th</sup> Semeste r:** Project MCSP-060.

**Medium of Instruction :** English

**Number of Courses :** 31

**Number of Credits :** 108

### Programme Fees :

- ❖ Rs. 9,000/- Per Semester.

## INSTRUCTION METHODOLOGY FOR CIT, BCA AND MCA

- ❖ Self Learning Material (Print material which is provided to all the enrolled students).
- ❖ Face-to-face academic counselling and practicals through computer labs at the activated study centres.
- ❖ Audio-video / CD sessions.
- ❖ Teleconferencing and Radio Counselling using telecast and broadcasts.

### Academic Counselling Sessions for CIT, BCA and MCA

Theory and Practical Counselling sessions are organized at Study Centres, by subject experts called academic counsellors. Academic Counselling is usually on weekends (on Saturdays and Sundays) and sometimes even on weekdays. **Theory Counselling** will help students to resolve their subject-based difficulties. Learners are advised to read the Programme Guide and Study material before attending the counselling sessions. **Practical Sessions** will be held in the labs at the computer study centres. Seventy percent attendance is compulsory for each lab course.

### Assignment and Project Works in BCA and MCA

Each student is required to prepare Assignment responses (theory and practical assignments) Course-wise. Similarly, a student is also expected to take up Project Work (mini and major) putting his/her theoretical knowledge into application.

### Term-End Exam for CIT, BCA and MCA

Term-End Examination – Theory (TEE) and Practical (TEPE) are conducted twice in a year i.e, June (theory) & July (practicals) and in December (theory) and January (practicals). Students can take the Theory Exams anywhere in India subject to submission of Examination form to that effect for theory courses. However, such facility will not be available for TEE practicals outside the region as students need to write / attempt Term-End practicals only through the designated Practical Examination Centres within the Region with which students are enrolled.

The programmes viz., CIT, BCA and MCA aim to develop the theory and practical skills and provides an opportunity for the students who require employable skills and competencies for competing in the job market for new job or professional growth or creating self employment depending on what a learner intends to do.

### *Contact Details*

**IGNOU Regional Centre, Hindu High School Premises, Kothapeta, Vijayawada – 520001**

**Phone: 0866-2565253, 2565959, Fax No.: 0866-2565353**

**Websites: [www.ignou.ac.in](http://www.ignou.ac.in) and <http://rcvijayawada.ignou.ac.in/>**

**e-mails: For General Information : [rcvijayawada@ignou.ac.in](mailto:rcvijayawada@ignou.ac.in)**

**For queries on admissions: [admsrc33@ignou.ac.in](mailto:admsrc33@ignou.ac.in)**