NOIDA INSTITUTE OF ENGG. & TECHNOLOGY, GREATER NOIDA, GAUTAM BUDDH NAGAR (AN AUTONOMOUS INSTITUTE)



Affiliated to

DR. A.P.J. ABDUL KALAM TECHNICAL UNIVERSITY UTTAR PRADESH, LUCKNOW



Evaluation Scheme & Syllabus

For

Master of Computer Applications
MCA
First Year-Lateral Entry (B.Sc./B.A./B.Com.)

(Effective from the Session: 2025-26)

NOIDA INSTITUTE OF ENGG. & TECHNOLOGY, GREATER NOIDA, GAUTAM BUDDH NAGAR (AN AUTONOMOUS INSTITUTE)

Bridge Courses for Lateral Entry Students Admitted Through (B.Sc./B.A./B.Com.) Master of Computer Applications

MCA

EVALUATION SCHEME

SEMESTER-I

| Sl. No. | Subject Codes | Subject Name | Types of Subjects | Periods | | | Evaluation Scheme | | | End Semester | | - Total | Credit |
|------------|------------------|--|----------------------|---------|------------------|------|-------------------|------|-------|-----------------|------|---------|--------|
| | | | | L | T | P | СТ | TA | TOTAL | PS T | E PH | | Creun |
| | | WEI | EKS COMPULSO | ORY I | NDU ⁽ | CTIO | N PROC | GRAM | | , | ' | | |
| 1 | CMCABC0101 | Computers Concepts & Emerging Technologies | Compulsory Audit | 2 | 0 | 0 | 30 | 20 | 50 | 5 |) | 100 | |
| | | GRAND TOTAL | | | | | | | | | | 100 | |

All the students must clear the above-mentioned subject along with first year (Semester-I).

All Bridge Courses (Compulsory Audit Courses) a qualifying exam has no credit.

Total and obtained marks are not added in the Grand Total.

| Course Code | CMCABC0101 | ICABC0101 | | | |
|--------------------|--|-------------|---------------------------------|--|--|
| Course Title | Computers Concepts & Emerging Technologies | 0 | 0 | | |
| Course Outco | ome (CO) Bloom's Knowledge Level (KL) | | | | |
| | At the end of course , the student will be able to | | | | |
| CO 1 | Demonstrate the knowledge of the basic structure, components, Features and generations of computers. | | K_1, K_2 | | |
| CO 2 | Compare and contrast features, functioning & types of operating system and onetworks. | K 4 | | | |
| CO 3 | Demonstrate architecture, functioning & services of the Internet and basics of | multimedia. | K ₂ | | |
| CO 4 | Implement the working concepts of MS-Office | | K_2 | | |
| CO 5 | Illustrate the emerging trends and technologies in the field of Information Technologies | chnology. | K ₁ , K ₂ | | |
| | DETAILED SYLLABUS | | | | |

Unit I

Introduction to Computer: Definition, Computer Hardware & Computer Software

Components: Hardware – Introduction, Input devices, Output devices, Central Processing Unit Memory – Primary and Secondary Software – Introduction, Types– System and Application.

Computer Languages: Introduction, Concept of Compiler, Interpreter & Assembler

Problem solving concept: Algorithms – Introduction, Definition, Characteristics, Limitations, Conditions in pseudo-code, Loops in pseudo-code.

Unit II

Operating system: Definition, Functions, Types, Classification, Elements of command based and GUI based operating system. Windows Operating System Commands

Computer Network: Overview, Standalone, Types (LAN, WAN and MAN), Data communication, topologies.

Unit III

Internet: Overview, Architecture, Functioning, Basic services like WWW, FTP, Telnet, Gopher etc.. Search engines. E-mail. Web Browsers

Internet of Things (IoT): Definition, Sensors, their types and features. Smart Cities, Industrial Internet of Things.

Unit IV

MS-Office: Basic Concepts, Features, Applications and handling of MS-Word, MS-PowerPoint and MS-Excel

Unit V

Emerging Technologies: Introduction, overview, features, limitations and application areas of Cloud Computing, Big data, Grid Computing, Artificial Intelligence and Virtual Reality

Text Books:

- 1. Raja Raman V., "Fundamentals of Computers", Prentice-Hall of India.
- 2. Norton P., "Introduction to Computers", McGraw HillEducation.
- 3. Goel A., "Computer Fundamentals", Pearson.

Reference:

- 1. BalagurusamvE.. "FundamentalsofComputers", McGraw-Hill
- TharejaR., "FundamentalsofComputers", OxfordUniversityPress.
 BindraJ., "TheTechWhisperer-onDigitalTransformationandtheTechnologiesthatEnableit", Penguin

Links

https://www.youtube.com/watch?v=eEo aacpwCw

https://www.youtube.com/watch?v=WJ-UaAaumNA

https://www.youtube.com/watch?v=cNwEVYkx2Kk

https://www.youtube.com/watch?v=W3yttwGE-C0

https://www.youtube.com/watch?v=yCVy5Kw0l8s