VI. Applications of Information and Communication Technologies

Course Code: GE-160A
Credit Hours: 3 (2-1)
Semester: I
Discipline: General Education
Category: General Education
Course Title: Applications of Information and Communication Technologies

Course Introduction

This course introduces students to the practical applications of Information and Communication Technologies (ICT) and commonly used software tools in academic, professional and everyday contexts. It develops students' ability to use ICT for communication, information management, productivity, learning and problem-solving.

The course combines conceptual understanding with practical exercises involving productivity software, online platforms, cloud storage, communication tools, learning management systems, digital citizenship and ethical use of ICT. Students develop hands-on skills for using ICT effectively and responsibly.

Learning Outcomes

On completion of the course, students will be able to:

1. Explain the fundamental concepts, components and scope of Information and Communication Technologies.
2. Identify appropriate ICT platforms and tools for different purposes.
3. Apply ICT tools to address basic academic, professional and everyday needs.
4. Use common productivity, communication and cloud-based applications.
5. Demonstrate basic practical skills in creating, managing and sharing digital information.
6. Explain ethical, legal and responsible practices in the use of ICT.

Course Content / Assignments / Readings

Week	Course Content	Assignments / Activities
1–2	Unit-I: Introduction to Information and Communication Technologies 1.1 Components of ICT 1.2 Hardware and software 1.3 ICT platforms and networks 1.4 Local and cloud data storage 1.5 Scope and applications of ICT 1.6 Emerging technologies and future trends	Practical ICT exercise
3–5	Unit-II: Basic ICT Productivity Tools 2.1 Search engines and World Wide Web 2.2 Formal communication tools and etiquette 2.3 Microsoft Word, Excel and PowerPoint 2.4 Google Docs, Sheets and Slides 2.5 Cloud storage and file sharing 2.6 Note-taking and organization applications 2.7 Video conferencing tools 2.8 Social media applications	Practical exercises
6–7	Unit-III: ICT in Education 3.1 Learning Management Systems 3.2 Online education platforms	LMS practical exercise

Week	Course Content	Assignments / Activities
	3.3 Interactive multimedia 3.4 Virtual classrooms	
8	Unit-IV: ICT in Health and Well-being 4.1 Health and fitness applications 4.2 Telemedicine and online health consultations	ICT application exercise
9	Mid-Term Examination	Mid-Term Assessment
10	Unit-V: ICT in Personal Finance and Shopping 5.1 Online banking 5.2 Digital financial management tools 5.3 Online payment and shopping applications	Practical exercise
11–12	Unit-VI: Digital Citizenship and Online Etiquette 6.1 Digital identity 6.2 Online reputation 6.3 Netiquette 6.4 Respectful online communication 6.5 Cyberbullying and online harassment	Digital citizenship assignment
13–14	Unit-VII: Ethical Considerations in Use of ICT Platforms and Tools 7.1 Intellectual property and copyright 7.2 Originality and plagiarism 7.3 Unauthorized use of information 7.4 Content accuracy and integrity 7.5 Misinformation, fake news and manipulation	Case analysis
15–17	Unit-VIII: Practical ICT Applications 8.1 Creating documents 8.2 Preparing presentations 8.3 Creating and managing spreadsheets 8.4 Managing files and folders 8.5 Local and cloud storage 8.6 Online learning platforms 8.7 Submission and sharing of digital work	Practical project
18	Final Term Examination	Final Assessment

Textbooks and Reading Material

1. Vermaat, M. E., Shaffer, S., & Freund, S. M. *Discovering Computers*.
2. Gaskin, S., Vargas, A. R., & McLellan, M. *GO! With Microsoft Office* Series.
3. Grauer, R. T., & Poatsy, M. A. *Exploring Microsoft Office* Series.
4. Morley, D., & Parker, C. S. *Computing Essentials*.
5. Evans, A., Martin, K., & Poatsy, M. A. *Technology in Action*.

Teaching Learning Strategies

1. Interactive lectures
2. Demonstrations
3. Guided practical exercises
4. Individual computer-based tasks

5. Group activities
6. Problem-solving exercises
7. Practical projects

Assignments: Types and Number with Calendar

Assignment / Activity	Timing	Type
ICT Productivity Tools Exercises	Weeks 3–5	Individual
LMS and Online Learning Exercise	Weeks 6–7	Individual
Digital Citizenship Assignment	Weeks 11–12	Individual
ICT Ethics Case Analysis	Weeks 13–14	Group
Practical ICT Project	Weeks 15–17	Individual