Natural Sciences – II

One of the following options:

A. COMP 101- Introduction to Computer

Learning Outcomes

By the end of this course, students will be able to:

1. Develop an understanding of computer hardware, software, and networking.
2. Develop basic skills in using windows and Microsoft office, and creating web pages.
3. Use computers safely, and to consider ethical issues related to computer usage.

Course Outline

Unit – I

1.1 Introduction

Generations of computers, Classifications of computers, Users of computers, Computer professionals, Types of programming languages. Elementary Components, Categories, Input/Output Devices, Central Processing Unit, Buses, expansion Slots, Instruction cycle, Boot sequence, Why computers are fast, Factors that make computers fast. Motherboards and processors, Ports, Interfacing Cards, Modems.

Unit – II

1.1 Software and Hardware

Memory and Storage, Operating System, Installation of Microsoft Windows XP Professional

What is the internet? Instructional Aids/Resources, Introduction To Information Technology, Computer Input, Computer Output, Storage & Memory, Processing Hardware, Operating Systems and Utility Programs /System Software, Operating Systems and Utility Programs /System Software, Application Software, Networking Essentials, Networking Essentials

Unit – III

3.1 MS Office

MS-Word, MS-Powerpoint, MS-Excel, MS-Access.

- **Teaching-learning Strategies:**

Class Lecture method, which includes seminars, discussions, assignments and projects. (Audio-visual tools are used where necessary)

- **Assignments-Types and Number with calendar:**

According to the choice of respective teacher.

- **Assessment and Examinations:**

According to the University's Semester Rules.

Sr. No.	Elements	Weightage	Details
1.	Midterm Assessment	35%	It takes place at the mid-point of the semester.

2.	Formative Assessment	25%	It is continuous assessment. It includes: Classroom participation, attendance, assignments, and presentations, homework, attitude and behavior, hands-on-activities, short tests, quizzes etc.
3.	Final Assessment	40%	It takes place at the end of the semester. It is mostly in the form of a test, but owing to the nature of the course the teacher may assess their students based on term paper, research proposal development, field work and report writing etc.

Textbooks:

1. Bini, D., & Pan, V. Y. (2012). *Polynomial and matrix computations: fundamental algorithms*. Springer Science & Business Media.
2. O'brien, J. A., & Marakas, G. M. (2005). *Introduction to information systems* (Vol. 13). New York City, USA: McGraw-Hill/Irwin.

Suggested Readings:

1. Stallings, W. (2016). *Computer organization and architecture: designing for performance*. Pearson Education.
2. Stroustrup, B. (2018). *The C++ programming language*. Pearson Education.
3. Williams, B., & Sawyer, S. (2015). *Using Information Technology* (11th ed.). McGraw-Hill.