# CLUSTER UNIVERSITY SRINAGAR
## SYLLABUS (FYUP UNDER NEP 2020)
### Offered By Department of INFORMATION TECHNOLOGY
### Semester 1st (Major Course)

## Course Title: Basics of Information Technology

**Course Code: UGICT22J101**
**Credits: 4 (Theory: 3, Practical: 1)**
**Contact Hrs: 75 (Theory: 45, Practical: 30)**

**Max. Marks 100**
**Theory External: 60; Min Marks: 24**
**Theory Internal (Continuous Assessment): 15 Marks, Min Marks: 06**
**Practical Experimental Basis= 15, Min. Marks: 06**
**Practical Experimental (Continuous assessment) = 10, Min. Marks: 04**

**Objective:** The basic objective of this course is to impart knowledge about the fundamental concepts of computers and introduce learners to the basic concepts of operating system, number systems, and latest developments in the field of IT and provide hands-on training on Office Automation Tools.

**Course Outcomes:** After Completion of this course, the learner should be able to:
- Understand various concepts of Computers and Enumerate different types of input/output devices and types of memory
- Understand basic concepts of operating system and familiarize with various operating Systems.
- Understand various Number Systems, coding schemes, basic logic gates and convert numbers from one base to another
- Understand and familiarize with the latest developments in the field of IT.
- Use Word processing, presentation and spreadsheet making softwares.

### UNIT-I: Introduction to Information Technology Tools                           15 Hrs
Introduction to Computers: History, Elements of a Computer System: Block Diagram of the Computer System, Introduction to various units: CPU, Memory, Input and Output devices, Auxiliary storage devices. System and Application Software, Utility packages, Configuration of Computer System, Operating System, Programming Languages. Translators: Assembler, Compiler and Interpreter. Introduction to MS-DOS/WINDOWS/LINUX/UNIX

### UNIT-II: Number System and Data Information Concepts                           15 Hrs
Decimal, Binary, Octal, Hexadecimal, conversion from one number system to another. Signed Binary numbers, Binary arithmetic Binary codes: BCD, EBCDIC, ASCII, UNICODE, Gray Code, Excess 3 code conversion from one code to another. Logic Gates - AND, OR, NOT, NAND, NOR, Exclusive OR and ExNOR- Implementations of Logic Functions using gates, NAND and NOR implementations

### UNIT-III: Advanced Trends in IT                                               15 Hrs
Fundamentals of E governance, Wireless: Mobile Internet, GPS, 2G, 3G, 4G, Wi-Fi, Bluetooth, Social Networking, Cloud Technology, Virtual LAN Technology, Firewall, E-Commerce Internet Technology: Services and Basic terminology, Social Networking, Web browsers, Internet addresses, Domain names, Web Search engines, electronic mail and voice mail.

### UNIT-IV: PRACTICAL
### Office Automation Tools                                                       30 Hrs
**Word Processing- MS-Word**: Introduction to word processing, Objectives, Features Toolbars, Ruler, Menus, Editing, Previewing, Printing, & Formatting a Document, Find & Replace, Using Thesaurus, Mail Merge.
**Worksheet- MS-Excel:** Introduction to Worksheet, creating worksheets, heading information, data, text, dates, alphanumeric values, Toolbars and Menus, working with single and multiple workbooks, working with formulae & cell referencing, Auto sum.
**MS Power Point:** Introduction, Creation of Presentation (Creating a Presentation Using a Template, creating a Blank Presentation), Entering and Editing Text, Inserting and Deleting Slides in a Presentation, Preparation of Slides, Inserting Word Table or an Excel Worksheet, Inserting Other Objects, Using hyperlinks.

**References:**
1. Sanders, D.H., "Computer Today ", Mc-Graw Hill, 1988.
2. Suresh K. Basandra, "Computers Today", Galgotia Publications Pvt. Ltd.
3. Microsoft Web Publishing Step by Step, Active Education.
4. Bokhari& Ahmad "UNIX Operating System", DhanpatRai& Co.
5. Raja Raman V., "Fundamental of Computers" (4th edition.), Prentice Hall of India, New Delhi.
6. Trainer T., et al, "Computers", McGraw Hill. 7. Norton, Peter, "Introduction to Computers Mc- Graw-HillPublications.