



**FUNDAMENTALS OF COMPUTERS**  
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**[CORE COURSE TUTORIAL]**

<b>Semester: II</b>	<b>Credits: 4</b>	<b>Subject Code: BB22006</b>	<b>Lectures: 48</b>
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**Course Outcomes:**

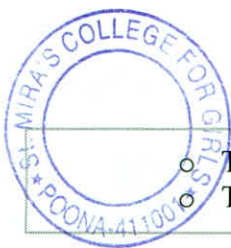
At the end of this course the learner will be able to,

- Recall the fundamentals of computing devices and reinforce computer vocabulary, particularly with respect to personal use of computer hardware and software, the Internet, networking and mobile computing
- To analyze the concept of information technology and its role in modern businesses.
- To demonstrate how to organize files and documents on a hard drive.
- To demonstrate application part of Windows and MS. Office.
- To create an understanding regarding cautions to be taken security, safety and security while using NET based service.

<b>Unit 1: Introduction To Computers</b>	<b>14</b>
<ul style="list-style-type: none"><li>• Introduction<ul style="list-style-type: none"><li>◦ Characteristics of Computers, Advantages and Disadvantages</li><li>◦ Block diagram of computer, ,</li></ul></li><li>• Types of Programming Languages<ul style="list-style-type: none"><li>◦ Machine Languages, Assembly Languages, High Level Languages,</li></ul></li><li>• Data Organization,<ul style="list-style-type: none"><li>◦ Drives, Files, Directories,</li></ul></li><li>• Storage Devices,<ul style="list-style-type: none"><li>◦ Primary Memory, RAM , ROM,</li><li>◦ Secondary Storage Devices - FD, CD, HDD, Pen drive</li></ul></li><li>• Types of Software:<ul style="list-style-type: none"><li>◦ Application Software and System Software (Meaning and Examples)</li></ul></li><li>• I/O Device-<ul style="list-style-type: none"><li>◦ Monitor and types of monitor, Printer and types of printer, Scanners, Digitizers, Plotters</li></ul></li><li>• Types of computers</li></ul>	

<b>Unit 2: Introduction to Operating System and Computer Networking</b>	<b>10</b>
<ul style="list-style-type: none"><li>• Operating System:<ul style="list-style-type: none"><li>◦ Definition, Functions of O.S.,</li><li>◦ Types of O. S. – Single user O.S., Multiuser O.S., Mobile O.S.</li><li>◦ Overview of Windows , Android O. S., IOS</li></ul></li><li>• Networking:<ul style="list-style-type: none"><li>◦ Definition, Goals, Applications</li><li>◦ Components</li><li>◦ Topology, Types of Topology</li></ul></li></ul>	

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Types of Networks, LAN, MAN, WAN Types of Networking Devices and their uses	
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<b>Unit 3: Microsoft Office</b>	<b>12</b>
<ul style="list-style-type: none"> <li>• MS-Word : <ul style="list-style-type: none"> <li>• Basic Tools, Formatting</li> </ul> </li> <li>• MS-Excel: <ul style="list-style-type: none"> <li>○ Various Functions such as Sum, average, count, max, min, Graph / Charts in Ms Excel</li> </ul> </li> <li>• MS-PowerPoint: <ul style="list-style-type: none"> <li>○ Animation Effects, Transition Effects, Slide Show Setting</li> </ul> </li> </ul>	

<b>Unit 4: Introduction to Internet &amp; cyber security and Types of Computing</b>	<b>12</b>
<ul style="list-style-type: none"> <li>• WWW, Internet, Internet Service Providers(ISP)</li> <li>• Services Provided by the Internet: <ul style="list-style-type: none"> <li>○ e-mail, search engine, Information security overview – Background and current scenario</li> </ul> </li> <li>• Computing <ul style="list-style-type: none"> <li>○ Introduction, Characteristics, Importance</li> <li>○ Cloud Computing</li> <li>○ Green Computing</li> <li>○ Mobile Computing</li> </ul> </li> <li>• Cyber Ethics <ul style="list-style-type: none"> <li>○ Concept and Significance</li> <li>○ The ten commandments of cyber ethics</li> <li>○ Applied cyber ethics</li> </ul> </li> </ul>	

**# 12 hours for Library work, practical or field work or research purposes**

<b>Recommended Text Books:</b>
<ul style="list-style-type: none"> <li>• Anurag Srivastava, Computer Fundamentals, Thakur Publications, 2019,</li> <li>• Saha and Saha, Computer Fundamentals , Himalaya Publications, 2012</li> <li>• C.S.V.Murthy, Fundamentals of Computers , Himalaya Publications, 2017</li> <li>• Pradeep K. Sinha , Computer fundamentals, BPB Publications New Delhi-2011</li> <li>• Ms Office E-Book For Beginner With Assignments: Ms.word, Excel &amp; Power Point Full Knowledge's Kindle Edition</li> </ul>

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**Reference Books:**

- Matt Bishop , Introduction to Computer Security, Pearson New Delhi 2019
- G.V. Anjaneyulu , Computer Organization, Himalaya Publishing House Mumbai , 2015
- V. Rajaraman , Fundamentals of Computers, PHI Learning New Delhi , 2015
- Anita Goel, Computer Fundamentals, Pearson, 2010
- Navneet Kumar, Cyber Security: Society, Laws and Ethics -Amazon Asia-Pacific Holdings Private Limited

**Websites:**

<https://www.tutorialspoint.com/>  
<https://www.javatpoint.com/computer-fundamentals-tutorial>  
<https://www.ukessays.com/essays/information-technology/introduction-of-cyber-ethics-information-technology-essay.php>

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Chairperson (HoD)	Mrs. Smita Borker-		
Faculty	Mrs. Kajal Jaisinghani		
Faculty	Mrs. Divya Chitre		
Subject Expert (Outside SPPU)	Dr. Sagar Jambhorkar		
Subject Expert (Outside SPPU)	Dr. Shankar Mali		
VC Nominee	Prof Anjum Patel		
Industry Expert	Mr. Sumit Pal Singh		
Alumni	Ms. Vidhi Thakkar		

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