

## Course-406: Practical

<b>Course Code:</b>	<b>406</b>
<b>Course Title:</b>	<b>Practical</b>
<b>Total Credits :</b>	06 Credits
<b>Nature of Subject :</b>	Practical only
<b>Teaching per Week:</b>	12 Hours per week per Semester
<b>Minimum weeks per Semester:</b>	15 weeks (Including class work, examination, preparation etc.)
<b>Review/Revision Year:</b>	June, 2021
<b>Purpose of Course :</b>	<ul style="list-style-type: none"> <li>- Practical implementation of technologies covered as part of syllabus using required software and learning application areas.</li> <li>- Understanding and learning concepts like Java programming and its Object and class concepts.</li> <li>- Various important concepts of Core Java like interface, package, threads. Also basic concepts related to Applet and Applet life cycle.</li> <li>- Basic concepts of .Net technology and implementation of different components of .Net Technology.</li> <li>- Students who selected Android Application will learn fundamental application development concepts including DART and Flutter.</li> <li>- Students who will select Web Design Development course will learn fundamentals of various important scripts and languages like XML, JSON, jQuery, AJAX and Node.js. It will give them a concept of using server side and client-side interaction.</li> </ul>
<b>Objective :</b>	<ul style="list-style-type: none"> <li>- Fundamental knowledge about platform independent object oriented Programming language like Java.</li> <li>- Various features of Core Java like interface, Packages, Garbage Collection, Exception handling, Threads and Applet.</li> <li>- To learn and enhance knowledge about .NET Technology to develop UI applications using different components and event driven codes.</li> <li>- Advance features of Web-designing and important tools and scripts at Client-end, middleware or server-end like XML, JSON, AJAX, Node.js, jQuery for those students who opt the 405-01 paper.</li> <li>- Android based application development advance features and fundamental knowledge about DART and Flutter for those students who opt for 405-02 paper.</li> </ul>
<b>Pre-requisite:</b>	Object oriented concepts, knowledge of SQL, PL/SQL, Python, C, C++, Web Design Concepts (HTML5, CSS, Bootstrap, Java Script)
<b>Course Outcome :</b>	<ul style="list-style-type: none"> <li>- At the end of this course, students will have hands on experience of writing and applying codes using Java programming Language. Object oriented concepts of Java , threads and Applet.</li> <li>- Students will understand concepts of .Net technology.</li> <li>- Students will have edge over concepts Programming skills and clear idea about using conditional and iterative statements, use of library functions and creating user defined functions.</li> <li>- Students who select web-designing-II as elective paper will learn advanced Web-Design concepts like JQuery, JSON, Node.js, AJAX.</li> <li>- Students who select Mobile Application Development-II course as elective will be able to work on advanced concepts on Android based mobile application development by learning DART, Flutter and advanced Android features.</li> </ul>
<b>Course Content:</b>	<ol style="list-style-type: none"> <li>1. Practical implementation of Paper-403 by writing codes and execution of tasks based on Unit-1 to Unit-3 and Unit-5.</li> <li>2. Practical implementation of Paper-404.</li> </ol>

	<p>3. Practical implementation of Paper-405-01 or Paper-405-02.</p> <p>4. A Minor Project based on Course Paper-405 is recommended during semester however not mandatory.</p>
<b>Teaching Methodology:</b>	- Practical work, Lab sessions and hands on experience, Discussion, Self-Study
<b>Evaluation Method:</b>	<p>30% Internal assessment. 70% External assessment.</p> <p>[For Internal and External Examination Suggested distribution of question weight will be as per following Weightage distribution] :</p> <p>(i) Paper-403 : 30%</p> <p>(ii) Paper-404 : 30%</p> <p>(iii) Paper-405-01 OR Paper-405-02 : 40%</p>