

## Course-206: Practical

<b>Course Code:</b>	<b>206</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, 2020
<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 structure, union and user defined functions using c-programming.</li> <li>- Comparing concepts of compiler based and interpreter based programming language and its conditional and iteration statements.</li> <li>- Understanding, use and application areas of interpreter based programming language Python and its important data structures.</li> <li>- Understanding concepts of Numpy and Pandas packages of Python.</li> <li>- Learning advanced queries, joining queries using multiple tables and implementation of procedural part using SQL.</li> <li>- Understanding various inbuilt functions and concepts of cursors.</li> </ul>
<b>Objective :</b>	Objective of this course is to learn and enhance programming skills using compiler based programming language C and interpreter based programming language Python. Learning and enhancing programming skills using control structures and some important data structures of Python and C-programming language. Learning concepts of python library files and its important features.
<b>Pre-requisite:</b>	Concepts of Programming language C and concepts of SQL.
<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 compiler based programming language. Students will understand concepts of structures, unions and user defined functions using C-programming language.</li> <li>- Students will understand concepts of interpreter based programming language using python and executing codes using variables, in-built functions, control structures and some important data structures of python.</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 will be able to understand and important packages like NumPy and Pandas in python.</li> <li>- Students will be able to work on procedural language which incorporates SQL and relevant datatypes, control structures, in-built functions and cursors.</li> </ul>
<b>Course Content:</b>	<ol style="list-style-type: none"> <li>1. Writing codes and execution of tasks based on Course-Paper-204.</li> <li>2. Practical implementation of SQL and Procedural SQL based on Paper-205.</li> </ol>
<b>Teaching Methodology:</b>	- Practical work, Lab sessions and hands on experience, Discussion, Self-Study
<b>Evaluation Method:</b>	30% Internal assessment. 70% External assessment. [For Internal and External Examination Suggested distribution of question weight will be : 20% - based on Unit-1 & Unit-2 of Course-paper-204 , 40% - based on Unit-3 to Unit-5 of Course-paper-204 and 40% - based on Course-paper-205.