

MODULE**PROGRAMMING FUNDAMENTALS****CODE:****BSCH-1-1-08****STAGE**

I

Number of Credits:

4 semester credits / 6 quarter units

STATUS

CORE

THEMES

Software Development

ASSESSMENTContinuous Assessment 50%
Examination 50%**Indicative Content**

Topic	Description
Introduction to programming	Fundamentals of computer hardware, system software, operating systems and application software; Introduction to Computer Organisation: input unit, output unit, memory unit, ALU, CPU, secondary storage unit; Basics of a programming environment; Practical concepts of a computer program: editor, compiler, executables, interpreters etc.;
Simple Input and Output	Developing output applications for different types of data: messages, arithmetic expressions; Controlling the cursor; Simple data types and variables; Assignment statement; Numeric constants; Interacting with the user;
Basic Programming Constructs	Scope rules and block code; Arithmetic expressions and rules of precedence; Comments; Mathematical functions; Boolean Expressions; Relational Operators; Boolean Operators; Procedural structure: Sequence, selection, iteration; <i>Selection</i> : IF...Else statement, Switch statement; <i>Iteration</i> : For, While, Do-While;
Character & String Processing	Characters: Character variables, Assignment; Input/output: Character handling methods; Processing Strings: Declaration, Assignments, Input/output, String Handling Methods;