

3/20/2025

BCA 2nd Sem Syllabus

KNU University



BCA 2nd Semester –Syllabus (KNU UNIVERSITY)

Python Programming (Basic to Advanced)

Course Code: BCSPY201

Credit: 5

Course Content:

UNIT I

Introduction to Python, Installation, IDEs, First Python Program

UNIT II

Variables, Data Types, Input/Output

UNIT III

Operators, Expressions, Type Casting

UNIT IV

Control Structures: if, if-else, nested if

UNIT V

Loops: for, while, nested loops, break, continue

UNIT VI

Functions – defining, calling, parameters, return values

UNIT VII

Recursion and Lambda Functions

UNIT VIII

List, Tuple, Set and Dictionary

UNIT IX

List Comprehension and Dictionary Comprehension

UNIT X

String Operations and Built-in Functions

UNIT XI

Modules and Packages

UNIT XII

Exception Handling

UNIT XIII

File Handling: Reading/Writing, CSV

UNIT XIV

Object-Oriented Programming: Class, Object

UNIT XV

Constructor, Inheritance, Polymorphism

UNIT XVI

Decorators and Generators

UNIT XVII

Working with Databases using Python

UNIT XVIII

Regular Expressions

UNIT XIX

Date and Time in Python

UNIT XX

Project Structure and Implementation

UNIT XXI

Python GUI with Tkinter

UNIT XXII

Web Scraping with BeautifulSoup

UNIT XXIII

Mini Project using Python

Cost Accounting

Course Code: BCSCA202

Credit: 5

Course Content:

UNIT I

Meaning, Scope, Objectives and Importance of Cost Accounting

UNIT II

Elements of Cost – Material, Labour and Overheads

UNIT III

Cost Sheet Preparation

UNIT IV

Methods of Costing – Job, Batch, Process Costing

UNIT V

Contract Costing and Operating Costing

UNIT VI

Reconciliation of Cost and Financial Accounts

UNIT VII

Marginal Costing – Break-even Analysis

UNIT VIII

Standard Costing and Variance Analysis

UNIT IX

Budgetary Control

UNIT X

Activity-Based Costing

UNIT XI

Inventory Control Techniques

UNIT XII

Cost Audit

UNIT XIII

Recent Trends in Cost Accounting

Business Environment

Course Code: BCSBE203

Credit: 4

Course Content:

UNIT I

Meaning, Nature and Significance of Business Environment

UNIT II

Internal and External Environment

UNIT III

Economic Environment of Business

UNIT IV

Political and Legal Environment

UNIT V

Social and Cultural Environment

UNIT VI

Technological Environment

UNIT VII

Global Environment – WTO, IMF, World Bank

UNIT VIII

Indian Industrial Policy

UNIT IX

Liberalization, Privatization and Globalization

UNIT X

Foreign Trade Policy of India

UNIT XI

Startups and Entrepreneurship in India

UNIT XII

Environmental Scanning and Strategic Management

UNIT XIII

MSME Sector and Business Opportunities

UNIT XIV

Digital Business and E-Governance

Environmental Studies

Course Code: BCSES204

Credit: 3

Course Content:

UNIT I

Definition, Scope and Importance of Environmental Studies

UNIT II

Natural Resources – Renewable and Non-renewable

UNIT III

Ecosystems – Structure and Function

UNIT IV

Biodiversity and Conservation

UNIT V

Pollution – Types, Causes, Effects and Control

UNIT VI

Solid Waste Management

UNIT VII

Social Issues and the Environment

UNIT VIII

Environmental Policies and Laws

UNIT IX

Climate Change and Global Warming

UNIT X

Environmental Impact Assessment

UNIT XI

Green Technologies and Sustainable Development

Web Development using HTML, CSS & JavaScript

Course Code: BCSWD205

Credit: 5

Course Content:

UNIT I

Introduction to HTML, Basic Tags

UNIT II

HTML Forms and Input Types

UNIT III

HTML Tables and Lists

UNIT IV

HTML Media – Audio, Video, Images

UNIT V

CSS Introduction – Inline, Internal, External

UNIT VI

CSS Selectors and Properties

UNIT VII

Box Model and Positioning

UNIT VIII

CSS Flexbox and Grid

UNIT IX

Responsive Design with Media Queries

UNIT X

JavaScript Basics – Syntax, Variables, Operators

UNIT XI

JavaScript Functions and Events

UNIT XII

DOM Manipulation

UNIT XIII

JavaScript Arrays and Objects

UNIT XIV

Form Validation using JavaScript

UNIT XV

Bootstrap Framework Basics

UNIT XVI

Project – Dynamic Web Page

UNIT XVII

Mini Project using HTML, CSS & JavaScript

UNIT XVIII

Introduction to APIs and AJAX

