SECOND-YEAR OF BACHELOR OF COMPUTER SCIENCE MAJOR REVISED SYLLABUS ACCORDING TO CBCS NEP2020

COURSE TITLE: PRACTICAL OF ADV.JAVA+LINUX

SEMESTER-IV, W.E.F. 2024-2025

Recommended by the Board of Studies in Computer Science
And
Approved by the Academic Council
Devrukh Shikshan Prasarak Mandal's
Nya. Tatyasaheb Athalye Arts, Ved. S. R. Sapre Commerce, and Vid. Dadasaheb Pitre Science College (Autonomous), Devrukh. Tal. Sangameshwar, Dist. Ratnagiri-415804, Maharashtra, India

Nya. Tatyasaheb Athalye Arts, Ved. S. R. Sapre Commerce and Vid. Dadasaheb Pitre Science College, Devrukh (An Autonomous College Affiliated with University of Mumbai)

1

Academic Council Item No: _____

Name of the Implementing Institute	:	Nya. Tatyasaheb Athalye Arts, Ved. S. R. Sapre Commerce, and Vid. Dadasaheb Pitre Science College (Autonomous), Devrukh. Tal. Sangameshwar, Dist. Ratnagiri-415804,
Name of the Parent University	:	University of Mumbai
Name of the Programme	:	Bachelor of Science
Name of the Department	:	Computer Science
Name of the Class	:	Second Year
Semester	:	Four
No. of Credits	:	02
Title of the Course	:	Practical of Adv. Java +Linux
Course Code	:	S404CSP
Name of the Vertical in adherence to NEP 2020	:	Major and Minor
Eligibility for Admission	:	Any 12th Pass seeking Admission to Degree Programme in adherence to Rules and Regulations of the University of Mumbai and Government of Maharashtra
Passing Marks	:	40%
Mode of Assessment	:	Formative and Summative
Level	:	UG
Pattern of Marks Distribution for TE and CIA	:	60:40
Status	:	NEP-CBCS
To be implemented from Academic Year	:	2023-2024
Ordinances /Regulations (if any)		

Nya. Tatyasaheb Athalye Arts, Ved. S. R. Sapre Commerce and Vid. Dadasaheb Pitre Science College, Devrukh (An Autonomous College Affiliated with University of Mumbai)

2

Syllabus for Second Year of Bachelor of Science in Computer Science

(With effect from the academic year 2024-2025)

SEMESTER-IV **Paper No.– II**

Course Title: Lab Skill of .Net Technology **No. of Credits – 02**

& Android development

Type of Vertical: Skill Enhancement Courses **COURSE CODE: CSSC202**

Learning Outcomes Based on BLOOM's Taxonomy:

After completing the course, the learner will be able to…		
Course Learning Outcome No.	Blooms Taxonomy	Course Learning Outcome
CLO-01	Remember	Understand the concepts related to Java Technology
CLO-02	Apply	Explore and understand use of Java Server Programming
CLO-03	Create	Develop a proficiency in the C# programming language
CLO-04	Create	Proficiently develop ASP.NET web applications using C#

Nya. Tatyasaheb Athalye Arts, Ved. S. R. Sapre Commerce and Vid. Dadasaheb Pitre Science College, Devrukh (An Autonomous College Affiliated with University of Mumbai)

3

Syllabus for Second Year of Bachelor of Science in Computer Science

(With effect from the academic year 2024-2025)

SEMESTER-IV   **Paper No.– II**

Course Title: Lab Skill of .Net Technology   **No. of Credits – 02**

                                  & Android development
Type of Vertical: Skill Enhancement Courses   **COURSE CODE: CSSC202**

	COURSE CONTENT		
Module No.	**Content**	**Credits**	**No. of Lectures**

1	1. Write C# programs for understanding C# basics involving
	
	a. Variables and Data Types b. Object-Based Manipulation
	
	c. Conditional Logic d. Loops e. Methods
	
	2. Write C# programs for Object oriented concepts of C# such as:
	
	   a) Program using classes
	
	   b) Inheritance
	
	   c) Namespaces
	
	3. Design ASP.NET Pages with Web controls and demonstrate the use of AutoPostBack
	
	c. Rich Controls (Calendar / Ad Rotator)
	
	4. Design ASP.NET Pages for State Management using
	
	a. Cookies b. Session State
	
	5. Perform the following activities
	
	  a. Design ASP.NET page and perform validation using various Validation Controls
	
	  b. Design an APS.NET master web page and use it other (at least 2-3) content pages.
	
	6. Design ASP.NET Pages with various Navigation Controls
	
	7. Performing ADO.NET data access in ASP.NET for
	
	a. Simple Data Binding b. Repeated Value Data Binding
	
	8. Design ASP.NET application for Interacting (Reading / Writing) with XML documents
	
	9. Design ASP.NET application to query a Database using LINQ
	
	10. Design and use AJAX based ASP.NET pages.
		01	15

Nya. Tatyasaheb Athalye Arts, Ved. S. R. Sapre Commerce and Vid. Dadasaheb Pitre Science College, Devrukh (An Autonomous College Affiliated with University of Mumbai)

2	1. Install Android Studio and Run Hello World Program. 2. Create an android app with Interactive User Interface using Layouts. 3. Create an android app that demonstrates working with TextView Elements. 4. Create an android app that demonstrates Activity Lifecycle and Instance State. 5. Create an android app that demonstrates the use of Keyboards, Input Controls, Alerts, and Pickers. 6. Create an android app that demonstrates the use of an Options Menu. 7. Create an android app that demonstrate Screen Navigation Using the App Bar and Tabs. 8. Create an android app to Connect to the Internet and use Broadcast Receiver. 9. Create an android app to show Notifications and Alarm manager. 10. Create an android app to save user data in a database and use of different queries.	01	15
	Total	**02**	**30**

Nya. Tatyasaheb Athalye Arts, Ved. S. R. Sapre Commerce and Vid. Dadasaheb Pitre Science College, Devrukh (An Autonomous College Affiliated with University of Mumbai)

5

Required Previous Knowledge

Students should know basic concepts related to computer and computer handling

Access to the Course

The course is available for all the students admitted for Bachelor of Science (Computer Science).

Methods of Assessment:

Vocational Skill Courses, Skill Enhancement Courses and the courses having laboratory session shall be assessed at the end of each semester.

Forms of Assessment

The assessment of the course will be of Diagnostic, Formative and Summative type. At the beginning of the course diagnostic assessment will be carried out. The formative assessment will be used for the Continuous Internal Evaluation whereas the summative assessment will be conducted at the end of the term. The weightage for formative and summative assessment will be 60:40. The detailed pattern is as given below.

Nya. Tatyasaheb Athalye Arts, Ved. S. R. Sapre Commerce and Vid. Dadasaheb Pitre Science College, Devrukh (An Autonomous College Affiliated with University of Mumbai)

6

Semester End Practical Examination (50 Marks)
Question Paper Pattern
Time: 2 hours

Question No.	Unit/s	Question Pattern	Marks
Q.1	All	Certified Journal	05
Q.2	All	Any two experiments	40
Q.3	All	Viva based on experiments	05
	Total		**50**

Grading Scale

10 points grading scale will be used. The grading scale used is O to F. Grade O is the highest passing grade on the grading scale, and grade F is a fail. The Board of Examinations of the college reserves the right to change the grading scale.

Reference book:
- "Beginning Android 4 Application Development", Wei-Meng Lee, March 2012, WROX.
- Beginning ASP.NET 4.5 in C#, Matthew MacDonald, Apress(2012)

Text book:
- Techmax publication book

Additional References:
- https://developers.google.com/training/courses/android-fundamentals
- The Complete Reference ASP .NET, MacDonald, Tata McGraw Hill
- Beginning ASP.NET 4 in C# and VB Imar Spanajaars, WROX

Nya. Tatyasaheb Athalye Arts, Ved. S. R. Sapre Commerce and Vid. Dadasaheb Pitre Science College, Devrukh (An Autonomous College Affiliated with University of Mumbai)