



॥ विद्या विनयेन शोभते ॥

Janardan Bhagat Shikshan Prasarak Sanstha's

CHANGU KANA THAKUR

**ARTS, COMMERCE AND SCIENCE COLLEGE, NEW PANVEL
(AUTONOMOUS)**

Re-accredited 'A+' Grade by NAAC (3rd Cycle - CGPA 3.61)

'College with Potential for Excellence' Status Awarded by UGC

'Best College Award' by University of Mumbai



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**Syllabus of
Certificate Course in Advance Technology- Introduction to Kotlin
Programming
w.e.f Academic Year 2019-20**



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Objectives of the Course:

- To provide the learners with readable, pragmatic, safe, and interoperable programming language
- To understand the basics of Kotlin Programming.
- To understand the object-oriented Processing, functions, classes, Interfaces.
- To help the learners to develop the Android apps using Kotlin Language.

Course Outcomes:

After successful completion of this course by the students, he/she would be able to

- Determine the concepts of the Kotlin language and how it integrates neatly with Java
- Analyze the basics of object-oriented software development, the most important development paradigm
- Understand how to use IntelliJ, the popular Java (and Kotlin) IDE, to write code effectively and professionally



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Scheme of Examination

Theory Question Paper Pattern:

Credit		02
Question 1	From Unit 1, 2	20 marks
Question 2	From Unit 1	15 marks
Question 3	From Unit 2	15 marks
Total		50 marks

Practical Question Paper Pattern:

Credit		02
Question 1	Unit 1	25 marks
Question 2	Unit 2	25 marks
Total		50 marks

Course content:

Course Name	Contact Hours		Credits		
	Theory	Practical	Theory	Practical	Total Credits
Certificate Course	30	30	02	02	04

Total Duration: 60 hrs (One academic Year). Theory: 30 Hrs. Practical: 30Hrs



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Evaluation System:

Sr. No.	Exam No.	Name of the Students	Theory	Practical	Total Mark	Credits	
			Maximum Marks	50	50	100	04
			Minimum Marks	20	20	40	

Standard of Passing: 40%

Separate head of passing-Theory, Practical's.

Grading System:

A Grade	Above 75%
B Grade	60-74%
C Grade	40-59%



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Class: T. Y. B. Sc. I. T.

Semester: VI

Subject: -Certificate Course in Advance Technology- Introduction to Kotlin Programming

Module	Topics	Lectures
01	KOTLIN - OVERVIEW -What is Kotlin? -History of Kotlin -Features of Kotlin -Advantages & Disadvantages KOTLIN - ENVIRONMENT SETUP KOTLIN - ARCHITECTURE KOTLIN - BASIC TYPES, DATA TYPES -Numbers -Boolean -Strings -Arrays -Collections -Ranges KOTLIN - CONTROL FLOW -If - Else -Use of When -For Loop -While Loop and Do-While Loop -Use of Return, Break, Continue KOTLIN - EXCEPTION HANDLING -Try, Catch, finally KOTLIN - FUNCTIONS -Parameter Function & Empty Function -Lambda Function -Inline Function	30 hrs



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02	<p>KOTLIN - CLASS & OBJECT</p> <ul style="list-style-type: none">-Any Class-Open Class-Nested Class-Inner Class-Anonymous Inner Class <p>KOTLIN - CONSTRUCTORS</p> <ul style="list-style-type: none">-Primary Constructor-Secondary Constructor-Constructor with & without parameter <p>KOTLIN - INHERITANCE</p> <ul style="list-style-type: none">-Types of Inheritance-Single Inheritance-Multilevel Inheritance-Hierarchical Inheritance <p>KOTLIN - INTERFACE</p> <ul style="list-style-type: none">-Why use kotlin interface?-Implementing Interfaces <p>KOTLIN - JAVA INTEROPRABILITY</p> <ul style="list-style-type: none">-Calling Java code from Kotlin-Calling Kotlin code from Java	30hrs
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Books and References:

Textbook:

Head First Kotlin, Oreilly, Dawn Griffiths
Kotlin in Action, Dmitry Jemerov

References:

<https://www.javatpoint.com/kotlin-tutorial>

<https://www.tutorialspoint.com/kotlin/index.htm>



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**Syllabus of
Certificate Course in Personality Development and Interview Skills
w.e.f Academic Year 2017-18**



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Objectives of the Course:

- To understand the basics of communication and to develop the communication skill.
- To provide the learners with valuable Interview tips, Interview techniques and Interview skills.
- To help the learners develop the aptitude skill, face interview questions confidently.

Course Outcomes:

After successful completion of this course by the students, he/she would be able to

- Analyze employable abilities among the learners for job opportunities.
- Gain skills in mobilizing community participation.
- Acquire leadership qualities and democratic attitude.



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Practical Question Paper Pattern:

Credit		02
Question 1	HR Interview	25 marks
Question 2	Aptitude Test	25 marks
Total		50 marks

Course content:

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Certificate Course	30	30	02	02	04

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Class: S. Y. B. Sc. I. T.

Semester: III

Subject: -Certificate Course in Personality Development and Interview Skills

Module	Topics	Lectures
01	Personality Development : Introduction To Self Body Language: Basic understanding, Palm Gestures, Hand and arm gestures, Hand to face gestures Stress Management : Stress Management Case Study, Relaxation Techniques	30 hrs
02	General Aptitude: Verbal Ability, Verbal Reasoning, Logical Reasoning, Arithmetic Aptitude, Data Interpretation, Online Aptitude Test Group Discussion: General Interest , Education , Sports Interview Skills: HR Interview	30hrs

Books and References:

Professional Communication, Aruna Koneru, Tata McGraw Hill

References:

https://www.tutorialspoint.com/the_complete_soft_skills_online_training_5_in_one/index.asp



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Certificate Course in Video Editing

Syllabus

Adobe
Premiere
CS4



Skills: Importing and Capturing Footage, Timeline, Sequence and Clip Management, Basic Video Editing, Editing Audio, Mixing and Creating Effects with the Audio Mixer, Creating Transitions, Creating Titles and Graphics, Working with advanced editing techniques, Using Video Effects, Using Color mattes and Backdrops, Enhancing Video, Wrapping Up and Exporting

Outputs: Video Merging, Advertisement creation, video effects, Creating a Short Film





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Detailed Syllabus:

KLiC Video Editing

Introduction to Video Editing with Premiere CS4

- Overview of Video Editing
- Uses of Premiere Pro CS4
- Features of Premiere CS4
- Installing Premiere Pro CS4

Introduction to Moviemaking

- Basics of digital video and movie editing
- Comparing camcorder formats
- Understanding video codecs
- Shooting better video

Getting Started with Premiere Pro CS4

- Working with workspace
- Customizing the Workspace in Premiere Pro CS4
- Working with project settings

Importing and Capturing Footage

- Importing files as footage
- Importing stills
- Importing layered Photoshop and Illustrator files
- Dealing with missing media
- Setting up to capture from tape
- Logging Tapes
- Batch-capturing footage

Timeline, Sequence and Clip Management

- Timeline
- Using Multiple Sequences
- Clip Project Management



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Basic Video Editing

- Basic Editing Concept and Tools
- Working with Monitor Panels
- Creating Insert and Overlay Edits
- Editing in the Timeline
- Setting In and Out Points in the Timeline Panel

Editing Audio

- What is Audio?
- Timeline Audio Tracks
- Editing Audi
- Recording Audio
- Gaining, Fading and Balancing
- Using Audio Effects and Transitions

Mixing and Creating Effects with the Audio Mixer

- Audio Mixer Overview
- Setting Track Volume & Mixing Tracks
- Panning & Balancing
- Applying effects with Audio Mixer

Creating Transitions

- About Video Transitions (Overview)
- Applying transitions
- Adjusting Transitions
- Customizing Transitions
- Various Transitions Effects

Creating Titles and Graphics

- Using the Titler
- Creating titles from templates
- Modifying a title
- Creating titles from scratch
- Superimposing a title
- Creating a title roll or crawl



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Working with advanced editing techniques

- Editing Utilities
- Editing with tool panel tools
- Fine tuning edits using the trim monitor panel
- Editing a Clip Using Clip Commands

Using Video Effects

- Exploring the Video Effects
- Applying a Video Effect
- Using Video Effects with Keyframes
- Superimposing Video Clip Using Keying Video Effect
- Applying effects using Image Matte Keying Effects
- Touring Premiere Pro Video Effects

Using Color mattes and Backdrops

- Mattes, Transparency and Opacity
- Create transparency, solid colors with keys mattes
- Matte other than the alpha channel
- Using more mattes

Creating Motion Effects

- Motion effect controls in Effect Controls Panel
- Working with the Motion Controls
- Using timeline Panel to Preview & add Keyframes
- Editing Motion Paths
- Adding Effects to Motion Paths
- Using a clip with an Alpha Channel
- Creating Traveling Mattes

Enhancing Video

- Understanding video color
- Color Correcting Basics
- Start a Color Correcting Session
- Using the Video Scopes
- Color Enhancement Effects
- Special color and luminance adjustments
- Retouch Using Photoshop and After Effects



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Wrapping Up and Exporting

- Preparing to export video
- Exporting to tape
- Exporting to Encore DVD
- Exporting to various formats using Adobe Encoder
- Sharing Your Movies Online