KERALA STATE AUDIO VISUAL AND REPROGRAPHIC CENTRE
TRAINING DIVISION, CITY CENTRE, THIRUVANANTHAPURAM

Kerala State Audio Visual and Reprographic Centre is an autonomous institution established by the Government of Kerala in the year 1992 as per G.O(M.S) 73/92/H.Edn dt 28/04/92. The main objective of the Centre is to impart training in the field of Computer Hardware & Software, Office Automation, Modern Reprography, Multi Media and Printing Technology to the educated unemployed youth and to undertake printing and reprographic works for the Government Departments / Autonomous bodies / Public sector. The centre has got a Governing Body consisting of fifteen members. Hon'ble Minister for Education, Kerala State being the Chairman and Principal Secretary Higher Education department as its Vice-Chairman. The administration of the Centre is vested with the Executive Committee consisting of five members, the Principal Secretary, Higher Education Department, Kerala State as its Chairman and Managing Director as its Member Secretary.

The Head Office of the Centre is located at Reprographic Complex, Vattiyoorkavu. The Institution has Sub Centres and Training Centres equipped with modern printing and reprographic machinery. A professional teaching and training staff personnel are leading classes with competitive skills and excellent academic record. The Infrastructure facilities of the Centre include well qualified teachers, well laid class rooms, well equipped lab, library, computer facilities with Internet etc. The centre is conducting various job oriented short term courses for the youth in order to enable them for achieving better placement in the modern Hi-Tech world.

ADVANCED CERTIFICATE IN OFFSET PRINTING

Introduction

Printing is the preservative of all arts, has an important role in the world's history. Now printing industry becomes the fastest developing industry in the world. As fast developing industry, it required more professionals in and abroad. The course is structured as 70% Practical and 30 % theory

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Rules and Regulations

1. Duration of the course

Normal duration of the course is Six Months (inclusive of examinations).

2. Medium of Instruction

The Medium of Instruction of all the theory and practical training courses shall be English.

3. Qualification and method of Selection

The minimum qualification for admission is a pass in S.S.L.C or equivalent. Preference will be given to those who are having Diploma in Engineering, Degree etc. The selection is based on the rank list prepared according to the merit of the candidates.

4. How to Apply

Candidates may apply in the prescribed Performa, cost of which is Rs.30/- (Rs.55/- for obtaining by post), attaching self attested copies of mark list of their qualifying examinations. The application should reach the concerned centre on or before the last date prescribed in the notification.

5. Fee Structure

Scheme I   - Lump sum payment of Rs.6000/- at the time of admission.
Scheme II   - Three installments of Rs.2200/- each at the first, third and fifth month.
Scheme III – Six Installments of Rs.1200/- from the first month to Sixth month
NB: Option of the fee payment should be selected at the time of admission.

6. Caution Deposit

A refundable caution deposit of Rs.500/- will be collected at the time of admission. The amount will be refunded only after the successful completion of the course.

7. Examination

Final Examination will be conducted after the completion of the course. A minimum of 80% attendance is required to attend the final examination (Theory & Practical) conducted by Kerala State Audio Visual and Reprographic Centre as per the syllabus.

Condonation of attendance shortage up to 15% will be allowed in exceptional circumstances. Time Table for the examination will be informed to the trainees.

A candidate shall be declared to have passed the training course only if he/she has secured a minimum of 40% marks in the final examination (Both theory & Practical). There will be four classes of passed candidates and the division in which a candidate will be placed is as follows.

75% and above : First class with Distinction

60% and above but below 75% : First class

50% and above but below 60% : Second class

All other successful candidates : Passed

Certificates will be awarded to successful candidates indicating the division in which they are placed.

8. SCHEME OF STUDY & EXAMINATION

Code No.	Subject	Theory Hrs/week	Practical Hrs/week	Marks		Total Marks
				Written	Practical	
ACOP101	Fundamentals of Computer & DTP	2		100		100
ACOP102	Plate making	2		100		100
ACOP103	Offset printing	2		100		100
ACOP104	Desk Top Publishing		3		100	100
ACOP105	Plate making		2		100	100
ACOP106	Offset printing		4		100	100
	Total	6	9	300	300	600

Any other details not specifically mentioned herein will be decided by the Managing Director, Kerala State Audio Visual and Reprographic centre and the decision will be final.

Managing Director

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ADVANCED CERTIFICATE IN OFFSET PRINTING

SYLLABUS

ACOP 101.   FUNDAMENTALS OF COMPUTER & DTP

A. Fundamentals of Computer

1. **What is a computer** – Advantages & disadvantages of using computer – Applications in various fields -Organisation of digital computer, data representation, Input /Output units,Computer memory, processor, Binary arithmetic, Software - System Software - Application Software- Computer languages - Operating systems - Introduction to Network - Classification of Computer based on generation, working principles & computing capacity, Disk Operating System, Windows- GUI - Organizing files and folders - copy, delete, rename and creation of files and folders – windows - start menu - run command - task switching - windows explorer – word pad.

2. **Introduction to word** - Anatomy of the word screen – File management - different ways of looking documents- preview of a file - printing a document- Creating a document - Wizards and Templates - opening a document - adding text - deleting text – undo & redo actions - Selection & deselecting of text - moving and copying text - clip board - cutting versus copying versus deleting – Drag & Drop – move and copy methods - spike.

3. **Formatting options** – Character formatting - styles – fonts –type specifications- Animating text – Highlighting text – case changes – paragraph formatting – intends and tabs – alignment – spacing – window & orphans – parent window – Child window – Adding borders and shading – page and section formatting – page margins – Headers and footers – page numbering – formatting with styles – formatting with autoformat – numbered bulleted lists – adding backgrounds. Find and Replace – Book marks - Checking of spelling and Grammars auto correct

4. **Tables and columns** - Anatomy of a table - Creating a table - adding text - adding rows and columns - column width - formatting cells, rows, columns - formatting of tables - performing calculations - arranging text in columns - adjusting column width and spacing - balancing the columns.

5. **Graphics, and Text Boxes** - Add an image in the document - formatting and enhancing graphics - picture tool - editing and images - text wrap - adding borders - creating text boxes - inserting text in text box - add a picture to a text box - insert a text file in a text box - formatting text boxes - enhancing text boxes - customizing boarders - adding special effects - auto shapes - importing of other objects.

6. **Auto text entry** - macros - definition - recording and playing- mail merging- paragraph style - character style - word art - internet and word.

B. Desk Top Publishing

1. **Introduction** - Different brands of DTP - Suppliers name - Approximate cost - Advantages in the field of printing and publishing - Principle of operation - Definition of terms used in DTP.

2. **Essential Components of DTP** - Processor with memory – Mouse - Monitor - Laser printer- Disk storage - Program - Graphics.

3. **Optional items** - Scanner - Colour Monitor

4. **Software** - Adobe Pagemaker , Photoshop, ISM GIST multi language software - Processing - Proof -reading

5. **Scanning** - Scanner and its resolution - Imparting of Images- general study on graphic software.

6. **Types of Scanners** - Monochrome scanner, Colour Scanner

7. **Pagination** - Different Soft wares - Database

8. **Printer** - Different types of printers -Daisy Wheel Printer- Ink jet printer – Dot matrix Printer- Principles of operation - advantages and disadvantages .of laser printers - terms used in printer memory - Interfaces - consumables required - fonts.

Pagemaker

1. **Components of Pagemaker window** - Creating a new document - New document windows - Entering text - formatting type - changing character specifications - saving your document – developing paragraphs - formatting paragraphs - columns.
   Editing - Free-Form - creating a frame - threading and unthreading Text - selecting text - Editing text - inserting and removing pages - Adjusting spacing of characters, words and lines.

2. **Adding Design Elements** - Adding graphics to your document - changing Page maker options - Creating graphics in Pagemaker - Importing graphics into Pagemaker
   Setting up templates - creating Templates from existing documents. Setting up custom styles – defining styles - Applying styles to text, using layers, printing.

3. **Adding Color** - Using Pagemaker's Default colors - working with Color graphics - Defining custom colors - Editing, copying, Removing and Replacing Colors - Screening Text and graphics

4. **Developing Long documents** - Using the story Editor – checking your spelling - using the find feature - using change feature- Linking text and graphics –compiling chapters into a Book – creating an index- creating a table of contents – filters-expanding Pagemaker's filter options- using Photoshop filters in Pagemaker.

5. **Understanding outlines** - Accessing Draw's outline Tools - Penning an outline - The outline Color dialog - working with text: Artistic and Paragraph text - The wonder of Artistic Text - Navigating your way - Remember the hotkeys - Importing text. Advanced text handling - Shaping text. to objects - Transparent Text –Creating a Text Mark – working with "UNTEXT"

6. **Effects and Affects** : The shaping Triumvirate - finding the Intersection - Cookie cutters and Cookie Dough-Melting objects together - Advanced options - Turning many shapes into one. Adding perspective - creating the frame - Creating the sides of the cube - Creating an Envelope - Using Envelope to create a Reflection - Blending objects - Blend Controls - Art of Blends - Science of Blends. Faking out reality - controlling an extrusion - New Bitmap extrusion Tool - different faces of contour - through the looking glass -dropping shadows - power of the clip.

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Photoshop

Basic Theory - Bitmaps and vectors- pixels and Resolution – RGB and CMYK colour models – RGB setup – CMYK setup –Greyscale setup –Monitor Calibration. Working Environment – Photoshop Screen Environment – using the toolbox –Document and Scratch sizes – Ruler guides and grids and grids moving around – The Info Palette – Palette techniques saving and loading custom settings – Printing composites – The History palette – Deleting, clearing & purging states – Taking Snapshots.

Opening and saving files – selection modes – Transformations– color modes and color models – adjusting color – paintbrushes and Art tools- Digital painting – Moving paint – Advanced painting Techniques – Layers – using masks – paths –Filters that improve your picture – filters to make your picture artistic – fillers to distort an other funky effects – Adding type to pictures – special effects – Photoshop plug – Ins and Add – Ons –compositing –photo repair – Black and white & color – Printing.

ACOP 102.   PLATE MAKING

1. **Design concerns of Printing**- Lay out Preparation- Imposition schemes

2. **Camera Operation** – Introduction - Different types of Reproduction Camera and its uses – Graphic Arts Photography – outlines of work - Main Components – Different types of copy boards – types of film holders – types of illuminations – types of lenses – their advantages and disadvantages – Principles of Operations – Manual, Semi Automatic and Automatic Camera – advantages and disadvantages.

3. **Line Negative Making** - Inspection and mounting of the art copy on the copy board of the Camera - Setting of the camera - Loading of the camera - Exposing of the film - removing and processing the exposed film – inspection and correction of negative.

4. **Half Tone Photography** – Accessories - General study on different types of screens - filters and their usages

5. **Contact Printer** - Operation and working principles - different types - taking of negatives and positives

6. **Whirler** - Working principle and operation - Minor repairs and maintenance.

7. **Plate printer or Printing down frame** - Working principles and operation.

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8 **Photo mechanical process** – Albumin, wipe on, deep-etch-Gum and Water processing, pre- sensitised.

9. **Super imposing process of plate making** - Methods of Super-imposing.

10. **Different kinds of plates and chemicals** - Aluminium – Zinc- multimetal plates - chemicals.

11. **Scanner and CTP – (Computer to Plate Technology)** – Principles of colour scanners- CTP

ACOP 103.   OFFSET PRINTING

1. **Introduction**- Basic principle of Lithography - Offset printing - types of Offset Machine - General study on the components of Offset machine.

2. **Offset machine** - Single colour - Sheet fed - two colour – Perfecting machine (Blanket to blanket) - Web Offset.

3. **Main parts and functions** - Plate cylinder - Blanket cylinder-Impression cylinder - Inking Unit - Dampening Unit - Paper feeding Unit - Feeding table - Front lay - Side lay - Gripper – Delivery unit - study of function of all parts.

4. **Operation and Adjustments** - Fixing of blankets - General principles-Fixing of plates - Pressure adjustment for different thickness of papers - Setting of inking rollers - Setting of dampening rollers – Different types of dampening system - Advantages and disadvantages - Setting of feeder - feeding table - front lay - side lay - setting of delivery unit.

5. **Web-Offset Machine** - General study on different types of Web Offset machine and their suitability.

6. **Colour Printing** - Four colour ink - Colour separation and super imposing - four colour printing –(Yellow, Magenta, Cyan and Black- colour mixing).

7. **Regraining of Plates** - Aluminium - Zinc - Multimetal plates-pre-sensitised.

8. **Repairs and maintenance** - cleaning and oiling.

9. **Paper, Ink and Quality control devices**

Managing Director

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09/10/2020