

A.P. State Council of Higher Education
Semester-wise Revised Syllabus under CBCS, 2019-20
Four-year B.A./B.Com (Hons) Semester-V (from 2022-23)

Domain Subject: **Computer Applications for Arts/Commerce**

Course Code:

Max Marks: 100

Course-7D: DIGITAL IMAGING
(Skill Enhancement Course (Elective), 4 credits)

Learning Outcomes:

Upon successful completion of the course, a student will be able to:

1. Gain knowledge about Types of Graphics, Types of Objects and Types of video editing tools
2. Show their skills in editing and altering photographs for through a basic understanding of the tool box.
3. Gain knowledge in using the layers.
4. Gain knowledge in using the selection tools, repair tools.
5. Gain knowledge in using selection tools, applying filters and can show their skills.

Syllabus: (Total hours: 75 including Theory, Practical, Training, Unit tests etc.)

UNIT-I

12 Hrs

1. Types of Graphics
 - 1.1 Raster vs Vector Graphics
2. Types of Objects
 - 2.1 Audio formats
 - 2.2 Video formats
 - 2.3 Image formats
 - 2.4 Text document formats
3. Types of video editing
4. Different color modes.
5. Image Scanner
 - 5.1 Types of Image Scanners

UNIT-II

12 Hrs

1. What is GIMP?
2. GIMP tool box window
3. Layers Dialog
4. Tool Options Dialog
5. Image window
6. Image window menus

UNIT-III

12 Hrs

Improving Digital Photos

- 1.1 Opening files
 - 1.1.1 Rescaling saving files
- 1.2. Cropping
- 1.3. Brightening & Darkening
- 1.4. Rotating
- 1.5. Sharpening

Introduction to layers

- 2. What is layer?
 - 2.1. Using layer to add text
 - 2.2. Using move tool
 - 2.3. Changing colors
 - 2.4. Simple effects on layers
 - 2.5 Performing operations on layers
 - 2.7 Using layers to copy and paste

UNIT-IV

12 Hrs

Drawing:

- 1.1 Drawing lines and curves
- 1.2 Changing colors and brushes
- 1.3 Erasing
- 1.4 Drawing rectangles, Circles and other shapes
- 1.6 Outlining and filling regions
- 1.7 Filling with patterns and gradients

Selection:

- 2.1 Working with selections
- 2.2 Select by color and fuzzy
- 2.3 Select Bezier paths
- 2.5 Modifying selections with selection modes

UNIT-V

12 Hrs

Erasing and Touching Up:

- 1.1 Dodge and burn tool
- 1.3 Clone tool
- 1.4 Sharpening using convolve tool
- 1.5 Correcting Color Balance

Filters:

- 2.1 Filters
 - 2.1.1 Blur
 - 2.1.2 Enhance
 - 2.1.3 Noise Filters

References:

Textbook: Beginning GIMP from Novice to professional by Akkana Peck,
Second Edition, Apress

Recommended Co-Curricular Activities (participation: total 15 weeks):

(Co-curricular activities shall not promote copying from textbook or from others work and shall encourage self/independent and group learning)

A. Measurable

1. Assignments (in writing and doing forms on the aspects of syllabus content and outside the syllabus content. Shall be individual and challenging)
2. Student seminars (on topics of the syllabus and related aspects (individual activity))
3. Quiz (on topics where the content can be compiled by smaller aspects and data (Individuals or groups as teams))
4. Study projects (by very small groups of students on selected local real-time problems pertaining to syllabus or related areas. The individual participation and contribution of students shall be ensured (team activity))

B. General

1. Group Discussion
2. Others

RECOMMENDED CONTINUOUS ASSESSMENT METHODS:

Some of the following suggested assessment methodologies could be adopted;

1. The oral and written examinations (Scheduled and surprise tests),
2. Closed-book and open-book tests,
3. Programming exercises,
4. Observation of practical skills,
5. Efficient delivery using seminar presentations,
6. Viva voce interviews.
7. Computerized adaptive testing, literature surveys and evaluations,
8. Peers and self-assessment, outputs form individual and collaborative work

Course-7D: DIGITAL IMAGING; Lab (Practical) Syllabus (15 Hrs.)

(Since, the proposed SECs are connected to Computer Programming/Software Tools and Skill enhancement, the students need to get exposure on the syllabus content by practicing on the computer even though there is no formal assignment of credits and laboratory hours for practical sessions. So, as part of the Co-curricular activities and continuous assessment, students should be engaged in practicing on computer for at least 15 hours per semester.)

1. Designing a Visiting card
2. Design Cover page of a book
3. Paper add for calling tenders
4. Design a Pamphlet
5. Brochure designing
6. Titles designing
7. Custom shapes creation
8. Image size modification
9. Background changes
10. Texture and patterns designing

Note: The list of experiments need not be restricted to the above list. *Detailed list of Programming/software tool based exercises can be prepared by the concerned faculty members.*

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