

COURSE TITLE	DIGITAL IMAGING
COURSE CODE	05MA0105
COURSE CREDITS	2

Objective:

- 1 Understand the fundamental concepts of digital imaging and photo editing using Adobe Photoshop
- 2 Develop skills in image manipulation, color correction, and retouching
- 3 Familiarize themselves with the Photoshop interface, tools, and workflows
- 4 Foster creative problem-solving and artistic expression within a digital imaging environment
- 5 Prepare students for more advanced studies in graphic design and digital art

Course Outcomes: After completion of this course, student will be able to:

- 1 Students will be able to navigate and utilize the Adobe Photoshop interface effectively
- 2 Students will be able to perform basic image editing tasks such as cropping, resizing, and color correction
- 3 Students will be able to create complex image compositions using layers, masks, and blending modes
- 4 Students will be able to prepare images for various output formats, including web and print
- 5 Students will be able to automate tasks and explore advanced features of Photoshop

Pre-requisite of course:Familiarity with operating systems and basic computer skills

Teaching and Examination Scheme

Theory Hours	Tutorial Hours	Practical Hours	ESE	IA	CSE	Viva	Term Work
0	4	0	0	0	0	50	50
Contents : Unit	Topics						Contact Hours
Total Hours							

Suggested List of Experiments:

Contents : Unit	Topics	Contact Hours
1	Introduction to Adobe Photoshop & Digital Imaging Overview of digital image concepts, terminology, and applications. Photoshop Interface and Navigation – Understanding the Photoshop workspace, panels, and menus, Basic Image Manipulation – Cropping, resizing, and rotating images. Introduction to Layers – Understanding and working with layers. Working with Selection Tools – Using various selection tools to isolate parts of an image, Image Editing Techniques Color Correction – Adjusting brightness, contrast, levels, and curves. Retouching Tools – Healing Brush, Clone Stamp, and other retouching tools, . Working with Filters – Applying and customizing filters for creative effects. Introduction to Masks – Creating and editing masks for non-destructive editing. Working with Type – Adding and formatting text in images	30
2	Advanced Compositing Layer Blending Modes Understanding and using different blending modes. Working with Adjustment Layers – Applying non-destructive color and tonal adjustments, Creating Photo Manipulations – Combining multiple images to create surreal or artistic compositions, Introduction to Vector Graphics – Creating and editing shapes and paths. Working with Smart Objects – Using smart objects for flexible editing.	30
Total Hours		60

Textbook :

- 1 Digital Imaging: A Practical Approach, Peter Burns, CRC Press, 2018
- 2 Real World Image Sharpening with Adobe Photoshop, Bruce Fraser, Jeff Schewe, Adobe Press, 2013

References:

- 1 Digital Image Processing, Digital Image Processing, Rafael C. Gonzalez, Richard E. Woods, Pearson, 2018
- 2 Understanding Digital Image Processing, Understanding Digital Image Processing, Vipul Singh , Wiley India, 2015

Suggested Theory Distribution:

The suggested theory distribution as per Bloom's taxonomy is as follows. This distribution serves as guidelines for teachers and students to achieve effective teaching-learning process

Distribution of Theory for course delivery					
Remember / Knowledge	Understand	Apply	Analyze	Evaluate	Higher order Thinking / Creative
10.00	20.00	25.00	25.00	10.00	10.00

Instructional Method:

- 1 Practical
- 2 Boardwork
- 3 PPT

Supplementary Resources:

- 1 <https://helpx.adobe.com/photoshop/>
- 2 <https://www.andacademy.com/resources/blog/graphic-design/what-is-photoshop/>
- 3 <https://www.adobe.com/products/photoshop/app.html>
- 4 <https://www.freepik.com/psd/assets>
- 5 <https://elements.envato.com/graphics/compatible-with-adobe-photoshop>