Part 1

Objective:

By Completing this module, you will be able to understand:
1. What is Graphic designing?
2. What is Typography?
3. What are Fonts and different catagories of fonts
4. What are Rastor graphics and vector graphics?
5. What is Page layout?
6. What is Web designing and its aspects?
7. Designing for Print vs the Web?
8. Layout, Colours etc.,

Graphic Design

Graphic design is a collaborative process between a client and a designer to convey a specific message to a targeted audience.

Graphic design often refers to both the process (designing) by which the communication is created and the products (designs) which are generated.

A graphic designer may utilize **typography, visual arts** and **page layout** techniques in varying degrees to produce the final result of the project.

Graphic design is all around us. It is in our morning paper, on our commute to work, and on the cover of our favorite books. The most common forms include:

Logos, Websites, Business Cards, Advertisements, Book Design, Brochures, Billboards Product Packaging, Posters, Magazine Layout, Newspaper Layout, Greeting Cards.............

….ticket stubs, skateboards, matchbooks, train schedules, credit cards and countless other products and everyday items all utilize graphic design.

Graphic Design - Techniques

■ **Typography**

From the beginning of history, humans have used graphics and text to communicate experiences, knowledge, and feelings. With multimedia technology, text can be combined with other media in a powerful and meaningful way to present information and express moods.

Typography is the art, craft and techniques of type design, modifying type glyphs, and arranging type. Type glyphs (characters) are created and modified using a variety of illustration techniques. The arrangement of type is the selection of typefaces, point size, line length, leading (line spacing) and letter spacing.

Fonts & Type Faces

Typeface
A typeface is a family of graphic characters that usually includes many type sizes and styles.

Font
A font is a collection of characters of a single size and style belonging to a particular typeface family. Typical font styles are **boldface** and italic. Other style attributes, such as underlining,   outlining, and strikeout of characters, may be added by your computer software.

Arial, Courier, and Times New Roman are **typefaces,** Arial12-point italic is a **font.**

Dictionary.com defines graphic design as "the art or profession of visual communication that combines images, words, and ideas to convey information to an audience."

The term "**graphic design**" can also refer to a number of artistic and professional disciplines that focus on visual communication and presentation.

Composition is one of the most important features of graphic design especially when utilizing pre-existing materials or using diverse elements.

Font Catagories

Fonts can be characterized as **Serif, Sans serif, Decorative** and **Script.** Here shows an example of each of these:

Serif

Ff

Times New Roman

> Serif fonts are recognizable by the small lines at the ends of the various strokes of a character.
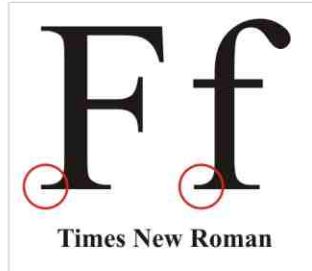
A serif is a line or curve extending from the ends of a stroke of a character. As these lines make a typeface easier to read by guiding the eye from letter to letter and word to word, serif fonts are often used for large blocks of text, such as in a book. Times New Roman is an example of a common serif font.

Sans Serif

Arial

Helvetica

Futura

> Sans serif, or without serif, refers to typefaces without these lines.

The French word sans means without, so sans serif typeface is one without serifs. Sans serif fonts are often used when a large typeface is necessary, such as in a magazine headline. Arial, Helvetica are popular sans serif typeface. Sans serif fonts are also common for website text, as they can be easier to read on screen. Arial is a sans serif typeface that was designed specifically for on-screen use. Verdana font is frequently used for website text.

Script

Coronet

Brush Script

Script typefaces simulate handwriting or calligraphy. They do not lend themselves to quantities of body text, as people find them harder to read than many serif and sans-serif typefaces; they are typically used for logos or invitations. Examples include Coronet, Zapfino and Brush script.

Blackletter/Decorative

Old English

> Black letter, also known as Gothic script or Gothic minuscule. Many people refer to them as gothic script.

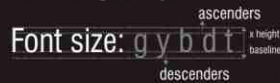Blackletter fonts, the earliest typefaces used with the invention of the printing press, resemble the blackletter calligraphy of that time. Black letter is sometimes called Old English. Various forms exist including textualis, rotunda, schwabacher, and fraktur. Old English font is the popular one.

Part 1

The font's size is the distance from the top of the capital letters to the bottom of the bottom of the descenders in letters such as g and y.

Font size: g y b d t

Point

The point is used to measure the size of a font. One point is equal to 1/72 of an inch. When a character is referred to as 12pt, the full height of the text block (such as a block of movable type), and not just the character itself, is being described. Because of this, two typefaces at the same point size may appear as different sizes, based on the position of the character in the block and how much of the block the character fills.

6 pt
10 pt
16 pt
24 pt
36 pt

Tracking can be used to increase legibility when you are designing magazine article. Kerning & Letterspacing adjustments may be used to tweak a specific word, such as in a logo design, or a large headline of a story in a newspaper.

Tracking, Kerning and Letterspacing

T r a c k i n g
K e r n i n g
Letter-
Spaci n g

The distance between characters is controlled by **tracking**, **kerning** and **letterspacing**. **Tracking** is adjusted to change the space between characters consistently across a block of text. **Kerning** is the reduction of space between characters, and **Letterspacing** is the addition of space between characters.

Leading

Leading Leading Leading
Leading Leading Leading

Leading Leading Leading

Leading Leading Leading

Leading refers to the distance between lines of text. This distance, measured in points, is measured from one baseline to the next. A block of text may be referred to as being 12pt with 6pts of extra leading, also known as 12/18. This means there is 12pt type on 18pts of total height (12 plus the 6pts of extra leading).

For the most part, when dealing with fonts, the more simplistic the design the better.

Family refers to a set of fonts with the same typeface (shape), but with differing slants, weights and sizes.

Tips for using Fonts Effectively:

- Choose a font that is suitable for your audience.

- Recommended is sticking to two or three fonts in your design – you don't want it to appear flat, but you also don't want the design to look too busy.

- Think about using fonts from the same family. This way, they may appear to look different, but they will still share the same basic design elements.

Part 1

Graphics are visual presentations on some surface, such as a wall, canvas, computer screen, paper, or stone to brand, inform, illustrate, or entertain.

Examples are: photographs, drawings, Line Art, graphs, diagrams, typography, numbers, symbols, geometric designs, maps, engineering drawings, or other images.

■ Visual arts

Before any graphic elements may be applied to a design, the graphic elements must be originated by means of visual art skills.
These graphics are often developed by a graphic designer. Visual arts include works which are primarily visual in nature using anything from traditional media, to photography or computer generated art.
Graphic design principles may be applied to each graphic art element individually as well as to the final composition.

Visual artists are no longer limited to traditional art media. Computers have been used as an ever more common tool in the visual art since the 1960s.
Computer art is any art in which computers played a role in production or display of the artwork. Such art can be an image, sound, animation, video, CD-ROM, DVD, video game, website, algorithm etc.

Computer Graphics
There are two types of computer graphics: **Rastor Graphics** and **Vector Graphics**.

Rastor Graphics:
Raster graphics are digital images created or captured (for example, by scanning in a photo) as a set of samples of a given space.
In computer graphics, a **Raster graphics** image or **Bitmap**, is a data structure representing a generally rectangular grid of pixels, or points of color, viewable via a monitor, paper, or other display medium.
A bitmap corresponds bit-for-bit with an image displayed on a screen, generally in the same format used for storage in the display's video memory, or maybe as a device-independent bitmap. Bitmap is technically characterized by the width and height of the image in pixels and by the number of bits per pixel (a color depth, which determines the number of colors it can represent).

Raster graphics, where each pixel is separately defined (as in a digital photograph).

Raster graphics are resolution dependent. Are based on pixels and thus looses clarity when scaled.
A raster file is usually larger than a vector graphics image file and is usually difficult to modify without the loss of information.

Raster graphics deal more practically than vector graphics with photographs and photo-realistic images.

Raster-based image editors, such as Photoshop, MS Paint, and GIMP (an open source tool), revolve around editing pixels.

Adobe Photoshop is popular among all the image editing softwares.

When an image is rendered in a raster-based image editor, the image is composed of millions of pixels. At its core, a raster image editor works by manipulating each individual pixel. Most pixel-based image editors work using the RGB (Red, Green and Blue) color model.

Raster images are stored in image files with varying formats, examples of raster image file types are: BMP (Bitmap), Gif (Graphics interchange format), Jpeg (Joint photographic experts group), Png (Portable network graphic), PSD (Photoshop document), Tiff (Tagged image file format), Eps (Encapsulated post script format).

Vector Graphics:
Vector graphics is the creation of digital images through a sequence of commands or mathematical statements that place lines and shapes in a given two-dimensional or three-dimensional space.
Vector graphics are made up of many individual objects. Each of these objects can be defined by mathematical statements and has individual properties assigned to it such as color, fill, and outline.

Vector graphics are resolution independent because they can be output to the highest quality at any scale.
Vector Graphics are smaller file sizes and can be easily modified.

> Vector art is key for printing. Since the art is made from a series of mathematical curves it will print very crisply even when resized. For instance, one can print a vector logo on a small sheet of copy paper, and then enlarge the same vector logo to billboard size and keep the same crisp quality. A low-resolution raster graphic would blur or pixelate excessively if it were enlarged from business card size to billboard size.

Vector-based image editors, such as CorelDRAW, Adobe Illustrator, Adobe Indesign or Inkscape, revolve around editing lines and shapes (vectors).

Software used to create vector graphics is sometimes referred to as object-based editing software. Common Vector formats include .cdr (CorelDRAW), .ai (Adobe illustrator), .swf (Shockwave flash), .svg (Scalable vector graphics), .cgm (Computer graphics metafile), .dxf (Autocad and other Cad software format).

Vector graphics, where mathematical formulas are used to draw lines and shapes, which are then interpreted at the viewer's end to produce the graphic.

Vector graphics often serve better for typesetting or for graphic design.

Vector graphics tend to have much smaller file sizes than raster-based bitmaps

CorelDRAW and Adobe Illustrator are popular among the vector graphics editors.

Graphic **Design**

■ Page layout

Page layout is the part of graphic design that deals in the arrangement and style treatment of elements (content) on a page.

Grids and templates are page layout design patterns used in advertising campaigns and multiple-page publications, including websites.

The grid system in graphic design is a way of organizing content on a page, using any combination of margins, guides, rows and columns.

It is commonly seen in newspaper and magazine layout with columns of text and images.

One grid, or a collection of grids, may be used across an entire project to achieve a consistent look and feel.

In a finished product, the grid is invisible, but following it helps in creating successful print and web layouts.

Using a grid system helps you position the elements of your design on the page.
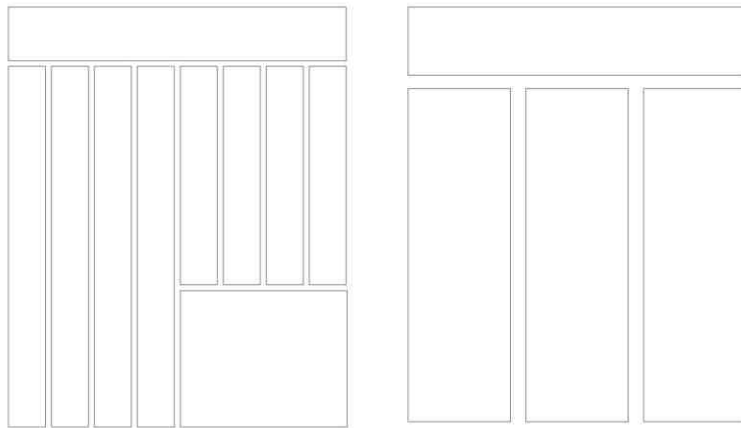
There is really no limit to the grid layouts that can be created. Common types include equally sized two, three and four-column grids with a header across the top, as well as a full-page grid of squares.

A page layout may be designed in a rough paper and pencil sketch before producing, or produced during the design process to the final form. Both design and production may be achieved using hand tools or page layout software.

Breaking out of the Grid
Once the grid is established, it is up to the designer when and how to break out of it. This doesn't mean the grid system in graphic design will be completely ignored. Instead, elements may cross over from column to column, extend to the end of the page, or extend onto adjacent pages.
Breaking out of the grid can lead to the most interesting page designs.