VISUAL DESIGN AND ACCESSIBILITY

GRAPHIC DESIGN PRINCIPLES

CONTRAST
Using different typefaces, colors, sizes, capitalization, etc. can help items on the page to be more easily noticed. Contrast refers to the difference between different elements. Use contrast to show differences between a multitude of visual elements (type, color, size, shapes, etc.)

LARGE	Small

ALIGNMENT
Alignment is where you place things on the page in relation to other things. Everything should be placed strategically on the page. In working with alignment, remember: Nothing should be placed arbitrary (or placed without reason) on a page.

1421 State St. Orem, Utah **Dr. Harold Vasser, M.D.** Always ready to serve you…. *Family Practice* *1.234.567.8910*	**Dr. Harold Vasser, M.D.** Family Practice 1421 State St. Orem, Utah 84058 1.234.567.8910 *Always ready to serve you…*

For multiple pages, a few rules of thumb: Whatever you do to one page, do to another. Consider using templates for those pages (repeating visual elements), which helps to preserve the overall continuity of the document.

PROXIMITY (OR GROUPING)
When you place or group similar (or related) items together on a page, you are maintaining proximity. Items grouped together they can be seen as one visual unit, which improves the availability of information.

YOU ARE CORDIALLY INVITED TO ATTEND A CONCERT… *July 21s, 7:00PM* *Civic Auditorium* *1421 Center Street* *in Downtown Orem, Utah.* *Pieces to be performed:* Chopin's *Fantasie-Improptu in C#* (violin adaptation) Debussy *Clair De Lune* And many more…. So, join us. PRESENTED BY THE UVU CHAMBER ORCHESTRA *Featuring* Soloist: Mary Suzuki, Violin	**YOU ARE CORDIALLY INVITED TO ATTEND A CONCERT…** PRESENTED BY THE UVU CHAMBER ORCHESTRA *Featuring* Mary Suzuki, Violin *Pieces to be performed:* Chopin's *Fantasie-Improptu in C#* (violin adaptation) Debussy *Clair De Lune* *And many more….* *July 21st, 7:00PM* *Civic Auditorium* *1421 Center Street,* *Downtown Orem, Utah*

REPETITION
Repeat visual elements.

HEADING Subheading	**HEADING** Subheading
SERIF TITLE • Detail • Detail • Detail **Sans-Serif Title** ○ Detail ○ Detail ○ Detail SERIF TITLE ▪ Detail ▪ Detail ▪ Detail	**Sans-Serif Title** ○ Detail ○ Detail ○ Detail **Sans-Serif Title** ○ Detail ○ Detail ○ Detail **Sans-Serif Title** ○ Detail ○ Detail ○ Detail

READER ORIENTATION
For instance, in the United States mainstream culture, readers read predominately English, which requires items be assessed from left to right and top to bottom. Our attention focuses on a diagonal line which runs from the top left to the bottom right.

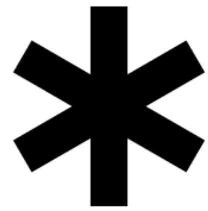
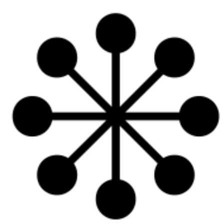
Things in this line tend to receive more attention from readers/viewers. Considering this idea can help a person understand how some items on the page may be viewed first or last. Items on the bottom tend to be viewed last. Items on the top tend to be viewed first.

Most Arabic cultures read things from right to left, so you may need to change your design orientation. Likewise, many Asian languages do not read from side to side, they may read top to bottom (up to down).

VERTICAL BALANCE
Visual elements should be balanced to promote better readability. When items are over-powering or massive on a page, they may appear distracting. Vertical Balance involves the distribution of objects on both ideas of the (invisible or visible) vertical axis (considering left and right - the sides).

If you take a page and cut it down the middle with your mind (separating both the right and the left), then you should consider how you might balance what is on the right or the left.

When a heavier, darker, or more emphatic objects appears on the left rather than the right, then the balance is said to be asymmetrical rather than symmetrical, since symmetrical things have balance.

LOREM IPSUM Lorem Ipsum. Lorem Ipsum. Lorem Ipsum. Lorem Ipsum. Lorem Ipsum. Lorem Ipsum. Lorem Ipsum. Lorem Ipsum. Lorem Ipsum. Lorem Ipsum. Lorem Ipsum. Lorem Ipsum.	
LOREM IPSUM Lorem Ipsum. Lorem Ipsum. Lorem Ipsum. Lorem Ipsum. Lorem Ipsum. Lorem Ipsum. Lorem Ipsum. Lorem Ipsum. Lorem Ipsum. Lorem Ipsum. Lorem Ipsum. Lorem Ipsum.	
LOREM IPSUM Lorem Ipsum. Lorem Ipsum. Lorem Ipsum. Lorem Ipsum. Lorem Ipsum. Lorem Ipsum. Lorem Ipsum. Lorem Ipsum. Lorem Ipsum. Lorem Ipsum. Lorem Ipsum. Lorem Ipsum.	

HORIZONTAL BALANCE
Visual elements should be balanced horizontally as well.

Horizontal Balance involves the distribution of objects on both sides of the (invisible or visible) horizontal axis (considering top and bottom).

When a heavier, darker, or more emphatic objects appears on the top rather than the bottom, then the balance is said to be asymmetrical rather than symmetrical, since symmetrical things have balance.

DOMINANCE (OR MANIPULATING THE FOCAL POINT)
Allowing some visual elements to receive more attention than others (through use of white space) can help. You may achieve dominance by making visual elements darker or larger. Additionally, you can isolate a visual element from other elements on the page.

STANDARDIZATIONS AND INDUSTRIAL STANDARDS
Certain types of visuals are regulated because of their importance in occupation and industrial environments. For example, the International Organization for Standards (ISO) and the American National Standards Institute (ANSI) publish regular standards with regards to safety labels and product safety. These standards are use in almost all production industries (e.g., food, shipping, construction, utilities, etc.).
https://blog.ansi.org/ansi-z535-4-2023-product-safety-sign-or-label/
https://www.iso.org/standard/51021.html

You can easily recognize common symbols and colors below, which are advocated by the ISO (3864) and the ANSI (Z535) standards.

Red, White, and Black = Danger (indicates a hazardous situation which may cause death or significant injury)

Yellow and Black = Caution (indicates a hazardous situation, which may result in moderate or minor injury)

Orange and Black = Warning (indicates a hazardous situation, which may result in minor injury)

Blue, White (and sometimes Black) = Notice (addresses practices not related to physical injury)

ACCESSIBLE VISUALS

INTRODUCTION
A whole host of visual disorders exist which limit or impair a person's ability to access and correctly view/read visuals (e.g., graphs, charts, documents, pictures, etc.). Likewise, visual accessibility may be affected by a host of different conditions which are instigated by the individual, such as their position relevant to the computer screen or their angle of view, etc.

COLOR BLINDNESS
Color Blindness affects 1-5% of the total population at any given time, causing disintegration of colors (making objects, shapes, text appear gray or completely colorless).

When in doubt, consider readability. Use colors for distinction... Try to shy away from RED and GREEN when possible. These are the most dominant colors succumbing to color blindness.
Note: There are some individuals with color blindness to blue and sometimes yellow; however, the occurrence is so rare that most designers are inclined to ignore it. Search for the Ishihara Test (for more details).

NEUROLOGICAL DISORDERS
We have discussed visual disorders involving color... However, we neglected to address neurological disorders affecting readability: Epilepsy and Migraines

Both conditions affect tens of millions of readers.

Anti-Epilepsy/Migraine Guidelines:
1. Avoid flashing elements
2. Avoid and/or limit erratic motion
3. Avoid brilliant elements, sometimes called glints, in corners of the screen.
4. Avoid red as much as possible in any color scheme. This color affects not only those with color blindness; red is also associated with evoking seizures and headaches in those with neurological disorders!

Pattern-Induced Epilepsy Guidelines:
1. Avoid and/or limit geometric shapes with shape edges or angles equal to or more than five.
2. Blend pixelated elements when possible (try not to allow pixelated elements to be viewable, if pixels are showing, then revise, hide, or blend them).
3. Avoid or limit parallel multiple horizontal lines or vertical lines in close proximity to each other.
4. Avoid overlapping text as much as possible.

For more information and details on triggers:
https://www.epilepsy.com/what-is-epilepsy/seizure-triggers/photosensitivity