CPNT 201 - Web Design Tools and Techniques

Course Description:
This course will introduce standard web editing, image and photo editing programs, as well as drawing tools used in website creation. Topics such as image correction, optimization of files, image resolution and special effects will be covered. Typical uses for the software include the creation of original artwork and logos and graphics. Topics such as the creation of shapes, patterns, and the use of colors will be covered.

3 credits

Time Guidelines:
The standard instructional time for this course is 88 hours.

Effective Year
2019/2020

Course Assessment:

Illustrator section broken down as follows (100%):	33%

- Illustrator Assignment 1: Logo Design 25%
- Illustrator Assignment 2: Interface Design 50%
- Illustrator Final Exam 25%

Photoshop section broken down as follows (100%):	33%

- Photoshop Image Correction Exam 25%
- Photoshop Assignment 1: Interface Design 50%
- Photoshop Final Exam 25%

CSS Preprocessors (Sass) and Git section broken down as follows (100%):	34%

- Sass Assignment 50%
- Git Assignment 50%

Total:	100%

SAIT Policies and Procedures:

The School of Information and Communications Technologies (ICT) expects students to act professionally during their studies. A guideline outlining expectations is available on the Information and Communications Technologies Orientation page. Students should review the guideline regularly, as the content may change.

Required Course Publication(s):

Faulkner, A. & Chavez, C. (2018). *Adobe Photoshop CC Classroom in a Book*. Adobe Press. ISBN: 9780134852485.

Wood, B. (2018). *Adobe Illustrator CC Classroom in a Book*. Adobe Press. ISBN: 9780134852492.

Course Learning Outcome(s):

1. Examine the tools, settings and terminology associated with a vector drawing program.

    Objectives:

    1.1 Define the user interface of a vector drawing program.

    1.2 Explain the benefits and limitations of vector objects.

    1.3 Explain the terminology associated with the construction of vector objects.

    1.4 Explain basic work flow procedures.

    1.5 Identify different file formats and their uses.

    1.6 Explain procedures for saving different file types.

2. Use the appropriate tools to create and modify basic vector shapes.

    Objectives:

    2.1 Identify the basic tools used to draw, transform and select shapes.

    2.2 Use the tools effectively to create new shapes.

2.3 Use the tools effectively to transform shapes.

2.4 Use a variety of commands to manage objects.

3. Use colour to change the appearance of vector objects.

Objectives:

3.1 Explain the concepts of fill, stroke and appearance.

3.2 Explain how colours are constructed using different colour models.

3.3 Apply different colour themes to artwork.

3.4 Manage colour swatches.

3.5 Modify stroke characteristics on objects.

3.6 Apply gradients to objects.

4. Use drawing and reshaping tools to create and modify vector shapes.

Objectives:

4.1 Modify basic shapes using various reshaping tools.

4.2 Manage anchors points on paths.

4.3 Select the appropriate tool to cut, smooth and erase parts of different types of paths.

4.4 Define the different drawing tools and their uses.

4.5 Use the pen tool to create and modify vector objects.

5. Use the different type tools to create and modify text.

Objectives:

5.1 Explain the different type tools and their uses.

5.2 Demonstrate the different options for using type with paths.

5.3 Explain typographic concepts and terminology.

5.4 Modify text using various typographic options.

5.5 Format larger bodies of text using paragraph formatting tools.

5.6 Explain the procedure of changing type into a vector path.

6. Demonstrate the different procedures for saving artwork specific for online use.

Objectives:

6.1 Identify procedures for outputting individual components for online design.

6.2 Compare methods for outputting complete HTML documents.

6.3 Demonstrate different file optimization methods for outputting graphic files.

6.4 Demonstrate different options for outputting HTML and CSS.

6.5 Explain how documents can be modified after output in an HTML editing program.

7. Examine the tools, settings and terminology associated with a raster based design and image editing program.

Objectives:

7.1 Define the user interface of a raster design program.

7.2 Explain the benefits and limitations of raster images.

7.3 Explain the terminology associated with raster files.

7.4 Explain image resolution and its implications for different work flow scenarios.

7.5 Demonstrate basic work flow procedures in Photoshop and the Bridge.

7.6 Identify different file formats and their uses.

7.7 Explain procedures for saving different file types.

8. Use the appropriate tools to create and modify selection boundaries.

Objectives:

8.1 Demonstrate the use of the selection tools and their options.

8.2 Make selections using different techniques.

8.3 Demonstrate using selections for different usage scenarios.

8.4 Explain selections and their relationship with layers.

8.5 Modify and save selections using masks and channels.

9. Demonstrate basic repair and correction of raster images.

Objectives:

9.1 Demonstrate the different image repair tools and their uses.

9.2 Explain cropping, “content aware” scaling and filling.

9.3 Demonstrate merging images for panoramas.

9.4 Explain the different image correction tools and their options.

9.5 Explain image correction methods using different scenarios.

9.6 Demonstrate Colour Balance adjustments.

9.7 Explain neutral targets and their use for colour adjustments.

9.8 Demonstrate Contrast and Tone adjustments using Levels.

9.9 Demonstrate basic image sharpening.

9.10 Explore the Camera Raw interface and its comparative operations with Photoshop.

10. Demonstrate the use of layers for file construction.

Objectives:

10.1 Explain the layers menu and panel and their different options.

10.2 Demonstrate the creation of layers for different purposes.

10.3 Explain layer transparency and blending modes.

10.4 Demonstrate the options and uses for layers styles and effects.

10.5 Demonstrate text layers and their options.

11. Use masks, channels and paths to create visual effects and enhance your work flow.

Objectives:

11.1 Explain the concept of masks and their relationship to channels.

11.2 Demonstrate the use of layer or pixel masks.

11.3 Modify layer masks using different painting tools.

11.4 Demonstrate the use of clipping masks.

11.5 Explain the use of vector tools and masks inside of a raster program.

11.6 Demonstrate the different options available for creating and modifying vector shapes and masks.

11.7 Demonstrate work flow procedures for transferring data from a vector program.

11.8 Create and modify channels for different uses.

12. Use the different painting and erasing tools to create or modify artwork.

Objectives:

12.1 Demonstrate the painting tools and their options.

12.2 Manipulate gradients.

12.3 Demonstrate the different eraser tools and their uses.

12.4 Explain the toning tools and their different uses.

13. Demonstrate the different procedures for saving files for different usage scenarios.

Objectives:

13.1 Explain procedures for outputting individual images for online design.

13.2 Explain procedures for outputting complete HTML documents.

13.3 Demonstrate different file optimization methods for outputting raster files.

13.4 Demonstrate different options for outputting HTML and CSS.

13.5 Explain how documents can be modified after output in an HTML editing program.

14. Backup work and collaborate with a team using version control.

Objectives:

14.1 Backup work using Git.

14.2 Perform Git tasks using the command line or a GUI.

14.3 Create and resolve merge conflicts.

14.4 Create and share branches to work with a team.

14.5 Communicate with a team through pull requests.

15. Usetools to improve and optimize front-end workflow.

Objectives:

15.1 Install tools to use SASS.

15.2 Compile CSS from SASS.

15.3 Write modular SASS using imports.

15.4 Simplify SASS by nesting rules.

15.5 Create re-usable components using variables.

15.6 Demonstrate how to use built-in SASS functions.
