



Course Description

GRA1754 | Responsive Web Design | 4.00 credits

The student will design fluid-layout and responsive pages in this intermediate-level course. Responsive web pages adapt to various devices and user preferences, and examines the advantages of responsive design, as well as the latest industry research reporting on statistics for mobile device use globally. Topics include: fluid grids, responsive typography and images, CSS media queries, “mobile first” workflows, usability, tools and resources. Prerequisite: GRA1751.

Course Competencies:

Competency 1: The student will create fluid-width layouts during guided lessons and assignments by:

1. Applying widths based on percentage and specifying minimum and maximum pixel widths

Competency 2: The student will examine “mobile-first” workflows by:

2. Analyzing the emergence of web-capable smartphones, tablets, watches, video games, automobile accessories, and other unusual web browsing agents
3. Analyzing the growth of broadband subscriptions throughout the Third World
4. Examining the advantages of designing for “mobile first” and adding “progressive enhancements” for more robust web browsing agents

Competency 3: The student will examine how media queries are used to design pages that respond to the dimensions of the web browser’s viewports by:

1. Designing a layered digital image comp for each breakpoint
2. Applying media queries to their projects and testing the page using various viewport sizes
3. Applying logical operators to combine viewport sizes and other features

Competency 4: The student will apply responsive typography during guided lessons and assignments by:

1. Linking to online web fonts
2. Applying Computing optimum line length using Pearsonified’s Golden Ratio Typography Calculator and applying media queries to create multi-column layouts based on said calculation

Competency 5: The student will apply responsive images during guided lessons and assignments by:

1. Optimizing the same image for various viewport sizes
2. Applying media queries within the picture tag to automatically select the optimum image size for each breakpoint

Competency 6: The student will apply responsive navigation during guided lessons and assignments by:

1. Applying off-the-shelf script to switch between a horizontal navigation menu and a vertical collapsible menu

Learning Outcomes:

- Communicate effectively using listening, speaking, reading, and writing skills
- Use quantitative analytical skills to evaluate and process numerical data
- Solve problems using critical and creative thinking and scientific reasoning
- Use computer and emerging technologies effectively
- Demonstrate an appreciation for aesthetics and creative activities