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| **ELEMENT** | **CONTENT** |
| DEPARTMENT | CIS |
| AUTHOR (S) | Jean F. Hakim |
| COURSE NUMBER | **CIS 2450** |
| COURSE TITLE | **Advanced Web Technologies** |
| SHORT TITLE | Adv Web Tech |
| COURSE LEVEL | 2000 |
| DATE CREATED |  |
| CHECKED/CHANGED | 4/10/2017 |
| PREREQUISITES | CIS 1151 |
| COREQUISITES |  |
| RESTRICTIONS |  |
| SPECIAL FEES | No |
| CREDITS | 3 |
| HOURS | 2 hours of lecture, 2 hours of lab per week |
| SEMESTER | Spring |
| COURSE DESCRIPTION | This course introduces the student to advanced use of web technologies methods and practices. Discussion includes the use of technologies such as JavaScript, jQuery, CSS preprocessors, web APIs, and major web development frameworks which are all implemented in the lab. |
| SUGGESTED TEXTS |  |
| OPTIONAL TEXTS |  |
| COURSE OUTCOMES | The successful student will be able to:   1. Reformat and repurpose the content of existing websites 2. Recombine elements from multiple websites to create new applications 3. Understand JavaScript, jQuery, and the implementation of frameworks 4. Demonstrate proficiency in the client- and server-side technologies used in developing web applications including HTML, CSS, JavaScript, and jQuery 5. Build a unique and exciting new website incorporating course knowledge |
| COURSE CONTENT | 1. Web standards model 2. JavaScript syntax parsers, execution environments 3. JavaScript concepts    1. Variable environment    2. Scope chain    3. Browser event queue and interaction    4. Objects and functions    5. Functions    6. DOM events    7. Listeners 4. Frameworks    1. Bootstrap    2. jQuery    3. jQuery UI 5. Plugins 6. Web APIs    1. Flickr    2. Google 7. CSS preprocessors    1. Less    2. Saas |
| LAB/STUDIO OUTCOMES | The successful student will be able to:   1. Build interactive websites 2. Set up configurations exercising the topics discussed in class 3. Demonstrate concepts learned in lecture in an online interactive setting using a real-time development environment |
| LAB/STUDIO CONTENT | 1. JavaScript basics 2. Variables 3. JavaScript interactivity 4. Objects and object literals 5. JavaScript events 6. Designing a site with Bootstrap 7. jQuery 8. jQuery/Bootstrap 9. jQuery UI 10. Plugins 11. Flickr API 12. Google API 13. CSS preprocessors |
| LECTURE CAPACITY | 32 |
| LAB CAPACITY | 16 |
| GRADED OR P/NP | Graded |
| EVALUATION | Attendance, exams, written assignments, project |
| DELIVERY METHOD | HYB (Adobe Connect for LEC and LAB) |
| ROOM REQUIREMENTS | No room |
| AUTHOR’S NOTES |  |