

PROJECT AND PORTFOLIO VI

WDD469—WEB DESIGN AND DEVELOPMENT

The Project and Portfolio VI: Web Design and Development course combines hands-on learning experiences with summative and formative portfolio assessments. In this course, students will identify and plan the scope of a project, including the concept, design, and production pace. Students will expand on the preproduction methods learned in the Project and Portfolio V: Web Design and Development course by creating the necessary preproduction documentation to ensure the successful delivery of their project. By the end of the course, students will have an intimate knowledge of the requirements needed to complete their project.



FULL SAIL UNIVERSITY®

THIS COURSE WILL ENSURE THAT STUDENTS HAVE ALL OF THE PLANNING, SERVER-SIDE PROGRAMMING, DATABASE-INTEGRATION, DEVELOPMENT, PREPRODUCTION, AND PRODUCTION SKILLS NECESSARY TO HANDLE THE NEXT DEGREE PHASE.

Students will focus on fine-tuning their server-side skills while adding completed components and projects to their online portfolios. In addition, they will have the opportunity to collaborate and provide feedback on team projects as well as conduct and share their research on various web-development technologies.

OUTCOMES

To demonstrate proficiency in choosing and implementing an appropriate development stack to architect a modular web application given a functional-requirements document and timeline

To demonstrate proficiency developing server-side code using frameworks appropriate to the chosen web stack

To demonstrate proficiency integrating API services to extend feature functionalities, or mash-ups, within the proposed web application

To demonstrate proficiency using a version-control system to manage and commit all project assets

MATERIALS

- **MacBook Pro** with Internet access
- **Trello** app (free) or equivalent (e.g., **ZenHub**)
- **Slack** account <https://wdd.slack.com>
- Favorite flow-charting tool
- Code editor of choice
- **VirtualBox**/Machine server environment
- Presentation software (e.g., **Keynote**, **reveal.js**, **PowerPoint**)
- **WordPress** portfolio site used in previous courses

PRODUCTION PROCESS MATERIALS

(titles available via **Safari Books Online**)

- *Scrum: Novice to Ninja*, M. David Green, SitePoint
- *Web ReDesign 2.0: Workflow that Works* (2nd edition), Kelly Goto and Emily Cotler, Peachpit Press
- *The Agile Samurai: How Agile Masters Deliver Great Software*, Jonathan Rasmusson, Pragmatic Bookshelf

STACK/Frameworks

- LAMP Stack:
 - **Laravel** <https://www.laravel.com/docs/>
 - *Mastering Laravel*, Christopher John Pecoraro, Packt Publishing (available via **Safari Books Online**)
- MEAN Stack:
 - **Node.js** <https://nodejs.org/en/>
 - *Building an E-Commerce Application with MEAN*, Adrian Mejia, Packt Publishing (available via **Safari Books Online**)

PORTFOLIO STRUCTURE

Students will spend time further developing their server-side programming and database-integration skills from previous courses. They will also have the opportunity to fine-tune their team-building and collaboration skills by providing feedback on a variety of web-application projects.

The assignments students have completed in previous courses in preparation for this portfolio cycle are listed in the table.



PORTFOLIO COMPETENCIES AND COMPONENTS

COURSE NAME	PORTFOLIO-RELATED ACTIVITY NAME
SERVER-SIDE LANGUAGES	■ CRUD with Server-Side Languages
	■ Using MVC-Driven and Fully Object-Oriented Server-Side Language to Create Basic Web Applications
	■ Creating Basic Web Applications Using Current Tech Stacks
	■ Using Sessions and Cookies for Form and Login Functionality
	■ Basic RESTful API
	■ Server-Client Relationships and Terminology
ADVANCED DATABASE STRUCTURES	■ Installing and Configuring Popular Nonrelational Database Software
	■ Applying Map/Reduce Concepts to Build Nonrelational Database Queries
	■ Translating Relational Database Schemas to Nonrelational Schemas
	■ Translating Data Access Layers in Server-Side Applications to Use Nonrelational Data Stores
	■ Building Self-Hosted Nonrelational Database Application
ADVANCED SERVER-SIDE LANGUAGES	■ Constructing End-to-End Web Applications
	■ Using Third-Party Development Frameworks to Accelerate Server-Side Web-Application Development
	■ Common Components of Third-Party Frameworks
	■ Popular Content-Management Systems
	■ Creating Web Applications That Consume a Third-Party API

Students' portfolio course work will include developing a combination of new server-side application features and functionality as well as refining components from previous web-development courses.

WEEKLY BREAKDOWN

WEEK ONE

Students will explore course objectives as they take time to self-assess their competencies based on previous server-side courses. They will create and present a preliminary burn list of goals and milestones along with a project timeline and proposal. These goals and milestones will be focused on building a project with server-side frameworks and web-development stacks and will be based on students' ability to improve their skills over a four-week period.

THEMES

■ Self-Assessment ■ Solo-Project Planning ■ Team Charter

WEEK TWO

Students will continue their individual research, web development, and Solo Project while preparing for their upcoming Solo Final Demo presentation to their peers during Week 3. They will also begin working in groups to establish a project plan and design for their team-based project, which should be based on a different server-side framework and web-development stack.

THEMES

■ Full Solo Development ■ Team Accountability

WEEK THREE

This week will focus on the final development and debugging of students' Solo Project as they prepare to present their Solo Final Demo to their peers by the end of the week. In addition, team collaboration will continue to progress as students prepare for the Team Final Demo presentation.

THEMES

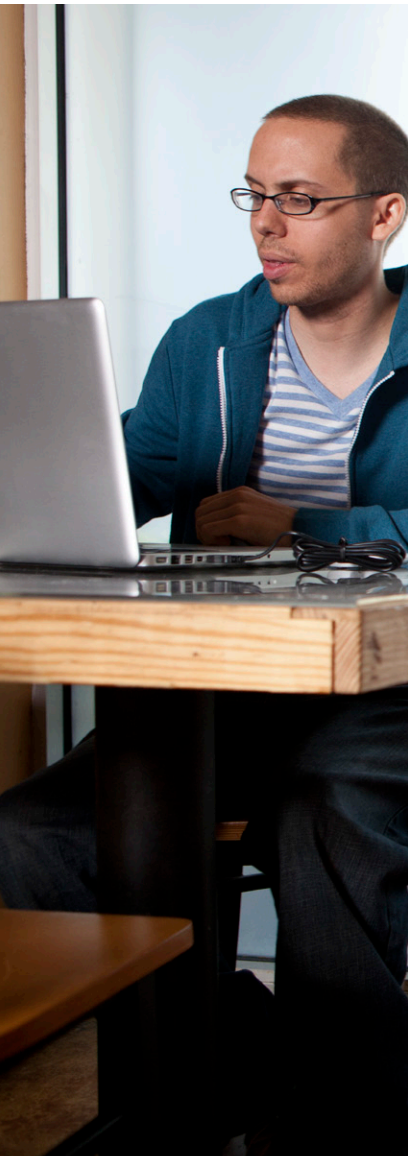
■ Team Collaboration ■ Solo Demo ■ Final Presentation

WEEK FOUR

Students will spend some time on self-reflection as well as reflection on their teamwork. The class will then discuss their observed improvement, future goals, and progress based on each student's milestones and individual progress. Additionally, teams will present their Team Final Demo and receive feedback from their peers.

THEMES

■ Self/Team Reflections ■ Team Demo ■ Future Planning



GRADE WEIGHTS

ACTIVITY	GRADE WEIGHT	ACTIVITY	GRADE WEIGHT
WEEK 1		WEEK 3	
Discussion 1—Meet Your Team and Introductions	3%	Comprehension Quiz 3	3%
Discussion 2—Discuss Research Findings (Agile and LAMP)	3%	Discussion 5—MEAN vs. LAMP Framework Comparison	2%
Assignment 1—Solo Proposal Documentation with Agile	5%	Discussion 6—Peer-Review Feedback for Solo Projects	2%
Assignment 2—Solo Version Control (Git Repo Link)	3%	Assignment 5—Solo Screencast (Slides, Demo Link Setup)	4%
Solo Project Stand-Up	6%	Solo Final Demo/Stand-Up	10%
WEEK 2		WEEK 4	
Comprehension Quiz 2	3%	Final Exam	10%
Discussion 3—Team Proposal Think Tank	4%	Discussion 7—Discuss Best and Favorite Domain/Host	2%
Discussion 4—Discuss Research Findings (Agile and MEAN Stack)	4%	Discussion 8—Portfolio Link Updates and Peer-Review Feedback	2%
Assignment 3—Team Proposal and Timeline Doc with Agile	2%	Assignment 6—Team Screencast (Slides, Demo Link Setup)	4%
Assignment 4—Team Version Control (Git Repo Link)	2%	Team Final Demo/Stand-Up	10%
Team Project Stand-Up	6%		
GPS			10%
Total			100%

INSPIRATION



LUANA GONCALVES

FLORIDA STATE HISPANIC CHAMBER OF COMMERCE, PROGRAM MANAGER

Luana Goncalves is a 2016 graduate of Full Sail's Web Design and Development degree program and recipient of an Advanced Achiever Award. She currently works as a program manager for the **Florida State Hispanic Chamber of Commerce (FSHCC)**, Florida's only statewide economic development organization dedicated to Hispanic business owners. One of Luana's primary responsibilities is handling communication and marketing for the chamber, including news, social media, and website maintenance.

In her role at **FSHCC**, Luana applies the web skills she acquired during her time at Full Sail to various projects. In December 2016, she completed the request for a simple scrolling website redesign for the **Hispanic Council for Reform and Educational Options**, the **FSHCC**'s sister organization, using HTML/CSS and **Bootstrap**: <http://hispaniccreo.org/>. Luana's latest work will soon be seen with the relaunch of the **FSHCC** website in 2017. She built the site using a **HubSpot** CMS template and then customized its styling using CSS. She is eager to continue to challenge herself with more front-end development work.

SEE HER WORK

FEEDBACK

The instructor will review students' assignments on a weekly basis, and students may contact the instructor via the **Slack** platform or email with additional questions. Students will also receive general feedback from peers through various role-playing scenarios. Additionally, they may receive mentor-related critique through a guest panel. Each week will provide unique opportunities for students to trace their path of progress and individual growth.

Students will be assigned to a team project in Week 1 and will follow accountability policies to help them understand the nature of team building on a real-world web-development project. They will collaborate with their assigned team members inside and outside of class to develop their demo. During team presentations, students will again receive feedback from their classmates, reinforcing the importance of team building and collaboration.

CONNECTIONS

Technical research, project planning, and effective utilization of new server-side technologies are critical skills in today's workforce. Learning full-stack web development will help students understand how to research and utilize new server-side stacks required to customize server-side apps. This course will task students to research and understand

the skills necessary to host a full website in a production environment. They will also realize the importance of providing weekly stand-up and/or status reports in their careers. Building these high-demand skills will enable students to keep pace with the industry and contribute to teams that produce modern-day web applications.

OUT-OF-CLASS WORK

This course requires at least 40 hours of preparation and out-of-class work. Out-of-class activities are documented in this syllabus and include reading assignments, outside research, project development, skills practice, and homework. Consideration has been given to creating out-of-class work that will support your efforts to successfully complete this course while achieving course objectives and program learning outcomes.

COURSE-SPECIFIC RUBRICS

The course rubrics are hosted here on **Google Drive**:
<https://docs.google.com/spreadsheets/d/1Saa-DVD0CrR2exhYVD4ly7ze6J2HBX8vngQuyTTDKF8/edit?ts=58064c6a#gid=1211370192>



ADDITIONAL RESOURCES

FURTHER RESEARCH | TUTORIALS | COURSE DIRECTOR'S PICKS

WEEK 1

Martin Angelov—The Languages And Frameworks You Should Learn in 2016

<http://tutorialzine.com/2015/12/the-languages-and-frameworks-you-should-learn-in-2016/>

Kevin Yank—Which Server-Side Language Is Right For You? <https://www.sitepoint.com/server-side-language-right/>

WEEK 2

Pro Django (2nd edition), Marty Alchin, Apress

Chapter 1: Understanding Django

[http://ce.safaribooksonline.com/book/web-design-and-development/9781430258094/chapter-1-understanding-django/9781430258094_ch01_xhtml?query=\(\(django\)\)#snippet](http://ce.safaribooksonline.com/book/web-design-and-development/9781430258094/chapter-1-understanding-django/9781430258094_ch01_xhtml?query=((django))#snippet)

Django www.djangoproject.com/

WEEK 3

Rahul Rajat Singh—An Absolute Beginner's Tutorial on ASP.NET MVC for Web Forms Developers

<http://www.codeproject.com/Articles/575397/An-Absolute-Beginners-Tutorial-on-ASP-NET-MVC-for>

WEEK 4

Oracle—Oracle8i Enterprise JavaBeans Developer's Guide and Reference (Release 3)

https://docs.oracle.com/cd/A97335_01/apps.102/a83725/secure5.htm

Big Data: Concepts, Methodologies, Tools, and Applications, Information Resources Management Association, IGI

Global <http://ce.safaribooksonline.com/book/databases/business-intelligence/9781466698406>

