CIS A227: JAVASCRIPT 3

Item	Value
Curriculum Committee Approval Date	03/13/2019
Top Code	070900 - World Wide Web Administration
Units	2 Total Units
Hours	36 Total Hours (Lecture Hours 36)
Total Outside of Class Hours	0
Course Credit Status	Credit: Degree Applicable (D)
Material Fee	No
Basic Skills	Not Basic Skills (N)
Repeatable	No
Open Entry/Open Exit	No
Grading Policy	Standard Letter (S)

Course Description

For students with advanced Javascript knowledge. The course will cover the latest technology to build complex Web apps. Topics include TypeScript foundations and AngularJS 2. ADVISORY: CIS A223. Transfer Credit: CSU.

Course Level Student Learning Outcome(s)

1. Students will understand advanced Javascript and apply advanced knowledge of Javascript framework to build complex Web application.
2. Students will be able to create their own Angular app with latest front-end technology.

Course Objectives

- 1. Understand TypeScript and its syntax.
- 2. Set up an Angular template.
- 3. Create a component.
- 4. Display data.
- 5. Work with events.
- 6. Use 2-way data binding.
- 7. Create sub-components.
- 8. Use built-in HTTP module.
- 9. Use built-in router module.

Lecture Content

Introduction to TypeScript 2.0 and AngularJS Installation Compiling first script Type annotations Interfaces Running your TypeScript Web app Why use Angular JS 2? AngularJS 2 Architecture Overview Components, Bootstrap and the DOM Directives and pipes Data binding Dependency Injection Services and other business logic Data persistence Routing Components Metadata Component selector Component Template Using other components Interpolation and the expression context Property binding Event binding Getting data to the component with input Subscribing to component events with output Directives and Pipes Structural directives - ngIf Structural directives - ngFor Attribute directives - built in Attribute directives - custom Using directives values Working with events in directives Angular pipes-built in Angular pipes-custom Forms Angular forms Template-driven forms Model-driven forms Validation-built in Validation-custom Error Handling Dependency Injection and Services How Angular does dependency injection Services in Angular Class constructor injection Building a service Provider registration at Bootstrap The inject decorator Routing The Angular 2 routing bundle Route configuration Router outlets Router links Using the router class to navigate HTTP The Angular 2 HTTP bundle Using a mock back end for HTTP call Using HTTP for GET call Using UrlSearchParams Using HTTP for POST, PUT and DELETE calls.

Lab Content

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Method(s) of Instruction

- Lecture (02)
- DE Online Lecture (02X)

Instructional Techniques

Lecture/discussion of covered topics.

Reading Assignments

Students should spend a minimum of two hours per week reading assigned material.

Writing Assignments

Students will spend a minimum of two hours per week writing codes to create dynamic Web pages.

Out-of-class Assignments

Students will spend a minimum of two hours per week writing codes to create dynamic Web pages.

Demonstration of Critical Thinking

Quizzes, computer projects, and exams.

Required Writing, Problem Solving, Skills Demonstration

Student performance on quizzes and Web page design projects will be used to determine proficiency.

Eligible Disciplines

Computer information systems (computer network installation, microcomputer ...: Any bachelor's degree and two years of professional experience, or any associate degree and six years of professional experience.

Textbooks Resources

1. Required Fenton, Steve. Pro TypeScript: Application-Scale JavaScript Development, ed. New York: Apress, 2014