

# WAKE TECHNICAL COMMUNITY COLLEGE COMPUTER TECHNOLOGIES DIVISION SYLLABUS

**Course No:** CSC-174

**Course Title:** Server Side JavaScript

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## **[Textbook Information \(opens in new window\)](http://www.waketech.edu/programs-courses/credit/computer-technologies/course-books)**

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### **Online and Hybrid Course Information**

**Students in Curriculum Education Online and Hybrid courses must complete the Course Entry Quiz during the first 10% of the course. The quiz can be found on the course's Blackboard site on the first day of class. Students who fail to complete the quiz within the required time frame will be immediately marked as "NA" (Never Attending) and dropped from the class.**

### **Software used to complete coursework:**

WebStorm or Visual Studio

**Other required equipment:** None

### **Special Instructions:**

**Credit Hours:** Three (3) Semester Hour

**Pre-Requisites:** WEB 115

**Co-Requisites:** None

### **Course Description**

This course introduces the use of JavaScript in the server environment to build server-side applications. Topics include asynchronous programming, connecting to other machines, testing, and connecting to different databases. Upon completion, students should be able to create server-side applications using JavaScript applications.

### **Course Goals:**

1. Write server-side applications using JavaScript language.
2. Use server-side JavaScript to create a file web server and or HTTP(S) server.
3. Write programs with JavaScript to connect to other machines on the server side.
4. Write asynchronous programs using JavaScript.
5. Write programs that connects to relational or NoSQL databases
6. User various libraries to test Node.js applications.

### **Student Learning Outcomes:**

Upon successful completion, students will be able to demonstrate (through completion of class work and assignments):

1. Write basic server side applications to mimic a file web server or an HTTP(s) server.
2. Use Express JavaScript framework to expedite web application development.
3. Write web applications that persist data in a relational or NoSQL database.
4. Write RESTful web services applications with Express JavaScript framework.
5. Write programs that connects to relational or NoSQL databases
6. Use AngularJS JavaScript framework to develop the front end of a web application.

## The Core Values of Wake Technical Community College (opens in new window)

<https://www.waketech.edu/about-wake-tech/core-values>

### **Classroom Policies:**

- Students are responsible for all of the information presented in the Wake Technical Community College Student Handbook
- Please note that computers are to be used at all times for official course purposes.
- Use of computers for general web surfing, e-mailing, chat room discussions, social networking, and any other non-course related task is forbidden. Violation of this rule will result in a grade deduction and possible loss of computer privileges.
- The college forbids the use of all audible electronic equipment during instructional time.
- Forbidden devices include but are not limited to: cell phones, smart phones, MP3 players, tablets, and PDAs.
- If you miss a lecture or arrive late, you are responsible for the material presented, handouts distributed, and any announcements made that day. The instructor will not provide notes for missed classes.

## Wake Technical Community College Student Email Policy (opens in new window)

<https://www.waketech.edu/student-services/catalog/campus-policies-and-procedures>

### **Grading**

#### **• 25% Midterm Exam**

Multiple choice, True/False, and Fill-in the blanks questions, one hands-on coding problem

#### **• 25% Final Exam**

Multiple choice, True/False, and Fill-in the blanks questions, one hands-on coding problem

#### **• 50% Labs**

Programming projects assigned weekly (Total 14 labs)

### **Employability Skills:**

Each student will be evaluated based on whether they demonstrate the skills that make them employable in their field. These skills may include, but are not limited to: promptness, presence, verbal articulation of subject matter concepts, quality of written communications, respect for their instructor, respect for their classmates, honorable presentation of original work, gracious acceptance of constructive criticism, attention to detail, and a dedication to excellence in their academic goals. These employability skills are direct reflections of the Core Values stated in the table above. Ask your individual instructor about how employability skills will affect your grade, and your ability to work in your chosen field once you have completed your academic goals.

## **Subject Area**

**Note: The order in which these subject areas are presented may be changed/modified by your Instructor--this list is offered only as a guide. The pace of each class differs according to the instructional needs of the students in the class. Always consult with your Instructor.**

- Node.js
- Asynchronous programming and callbacks
- NoSQL databases, MongoDB
- RESTful web services
- Express JavaScript framework
- AngularJS JavaScript framework
- HTTP/HTTPS server, web server
- MVC web application framework
- Local and remote Node.js debugging
- Mocha testing framework

Disability Support Services (DSS) is available for students who require academic accommodations due to any physical, psychological, or learning disability. To determine eligibility, contact the office at 919-866-5670-141 Montague Hall, Main Campus or Building A 317, Northern Campus.

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