

uCertify

Course Outline

Introduction to Programming Using JavaScript



Lesson



Practice test



Lab

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1. Course Objective

Prepare for the Microsoft MTA 98-382 exam with the Introduction to Programming Using JavaScript course and lab. The lab simulates real-world, hardware, software, and command-line interface environments and can be mapped to any text-book, course or training. The course and lab completely cover the objectives of the MTA 98-382 exam will help you master the skills required to program with JavaScript operators, methods, keywords, variables, data types, and functions; implement and analyze decisions and loops; interact with the Document Object Model (DOM), and interact with HTML forms, and more.

2. Pre-Assessment

Pre-Assessment lets you identify the areas for improvement before you start your prep. It determines what students know about a topic before it is taught and identifies areas for improvement with question assessment before beginning the course.

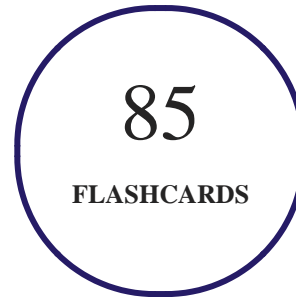
3. Quizzes

Quizzes test your knowledge on the topics of the exam when you go through the course material. There is no limit to the number of times you can attempt it.

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QUIZZES

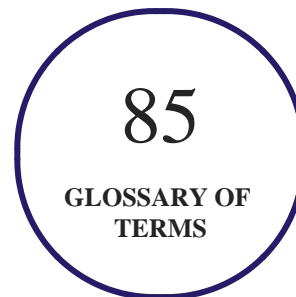
4. Flashcards

Flashcards are effective memory-aiding tools that help you learn complex topics easily. The flashcard will help you in memorizing definitions, terminologies, key concepts, and more. There is no limit to the number of times learners can attempt these. Flashcards help master the key concepts.



5. Glossary of terms

uCertify provides detailed explanations of concepts relevant to the course through Glossary. It contains a list of frequently used terminologies along with its detailed explanation. Glossary defines the key terms.



6. Expert Instructor-Led Training

uCertify uses the content from the finest publishers and only the IT industry's finest instructors. They have a minimum of 15 years real-world experience and are subject matter experts in their fields. Unlike a live class, you can study at your own pace. This creates a personal learning experience and gives you all the benefit of hands-on training with the flexibility of doing it around your schedule 24/7.

7. ADA Compliant & JAWS Compatible Platform

uCertify course and labs are ADA (Americans with Disability Act) compliant. It is now more accessible to students with features such as:

- Change the font, size, and color of the content of the course
- Text-to-speech, reads the text into spoken words
- Interactive videos, how-tos videos come with transcripts and voice-over
- Interactive transcripts, each word is clickable. Students can clip a specific part of the video by clicking on a word or a portion of the text.

JAWS (Job Access with Speech) is a computer screen reader program for Microsoft Windows that reads the screen either with a text-to-speech output or by a Refreshable Braille display. Student can easily navigate uCertify course using JAWS shortcut keys.

8. State of the Art Educator Tools

uCertify knows the importance of instructors and provide tools to help them do their job effectively. Instructors are able to clone and customize course. Do ability grouping. Create sections. Design grade scale and grade formula. Create and schedule assignments. Educators can also move a student from self-paced to mentor-guided to instructor-led mode in three clicks.

9. Award Winning Learning Platform (LMS)

uCertify has developed an award winning, highly interactive yet simple to use platform. The SIIA CODiE Awards is the only peer-reviewed program to showcase business and education technology's finest products and services. Since 1986, thousands of products, services and solutions have been recognized for achieving excellence. uCertify has won CODiE awards consecutively for last 7 years:

- 2014

1. Best Postsecondary Learning Solution

- **2015**

1. Best Education Solution
2. Best Virtual Learning Solution
3. Best Student Assessment Solution
4. Best Postsecondary Learning Solution
5. Best Career and Workforce Readiness Solution
6. Best Instructional Solution in Other Curriculum Areas
7. Best Corporate Learning/Workforce Development Solution

- **2016**

1. Best Virtual Learning Solution
2. Best Education Cloud-based Solution
3. Best College and Career Readiness Solution
4. Best Corporate / Workforce Learning Solution
5. Best Postsecondary Learning Content Solution
6. Best Postsecondary LMS or Learning Platform
7. Best Learning Relationship Management Solution

- **2017**

1. Best Overall Education Solution
2. Best Student Assessment Solution
3. Best Corporate/Workforce Learning Solution
4. Best Higher Education LMS or Learning Platform

- **2018**

1. Best Higher Education LMS or Learning Platform
2. Best Instructional Solution in Other Curriculum Areas
3. Best Learning Relationship Management Solution

- 2019
 1. Best Virtual Learning Solution
 2. Best Content Authoring Development or Curation Solution
 3. Best Higher Education Learning Management Solution (LMS)

- 2020
 1. Best College and Career Readiness Solution
 2. Best Cross-Curricular Solution
 3. Best Virtual Learning Solution

10. Chapter & Lessons

uCertify brings these textbooks to life. It is full of interactive activities that keeps the learner engaged. uCertify brings all available learning resources for a topic in one place so that the learner can efficiently learn without going to multiple places. Challenge questions are also embedded in the chapters so learners can attempt those while they are learning about that particular topic. This helps them grasp the concepts better because they can go over it again right away which improves learning.

Learners can do Flashcards, Exercises, Quizzes and Labs related to each chapter. At the end of every lesson, uCertify courses guide the learners on the path they should follow.

Syllabus

Chapter 1: Introduction to JavaScript

- About JavaScript

- JavaScript Getting Started

- Comments in JavaScript

- Your First JavaScript Code
- Exercise

Chapter 2: JavaScript Basics

- JavaScript Variables
- JavaScript Data Types
- JavaScript Operators
- JavaScript Operators Precedence
- JavaScript Alerts and Prompts
- JavaScript Keywords and Reserved Words
- Scripts
- Constants
- JavaScript Debugging
- Exercise

Chapter 3: Controlling Flow

- Decision Making
- Loops

- Exercise

Chapter 4: Arrays

- Types of Arrays
- Declaring and Initialization of an Array
- Array Methods
- Sorting and Searching in Array
- Access an Element of an Array
- Exercise

Chapter 5: Functions

- Function Definition
- Calling a Function
- Nested Functions
- Built-In Functions
- The this Keyword
- Exercise

Chapter 6: Objects

- Object-Oriented Language
- Creating Objects
- The String Object
- The Date Object
- The forEach() Method
- Exercise

Chapter 7: The Browser Object Model

- The Browser Hierarchy
- Window open() and close() Method
- JavaScript Window Screen
- Exercise

Chapter 8: Document Object Model

- DOM Levels
- The DOM as a Tree
- Retrieving Elements

- DOM Events
- JavaScript innerHTML and document.write()
- Exercise

Chapter 9: HTML Forms

- Overview of Form Elements
- Form Objects
- Working with Form Information
- Validation with JavaScript
- Form Submission Process
- Exercise

Chapter 10: Errors and Exceptions

- Error Handling and Exceptions
- Types of Errors
- try, catch and finally Statements
- throw Statement
- Exercise

Videos and How To

uCertify course includes videos to help understand concepts. It also includes How Tos that help learners in accomplishing certain tasks.

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VIDEOS

03:12

HOURS

11. Practice Test

uCertify provides full length practice tests. These tests closely follow the exam objectives and are designed to simulate real exam conditions. Each course has a number of test sets consisting of hundreds of items to ensure that learners are prepared for the certification exam.

Here's what you get

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PRE-ASSESSMENTS QUESTIONS

45

POST-ASSESSMENTS QUESTIONS

Features

Full Remediation

Each question comes with detailed remediation explaining not only why an answer option is correct but also why it is incorrect.

Unlimited Practice

Each test can be taken unlimited number of times until the learner feels they are prepared. Learner can review the test and read detailed remediation. Detailed test history is also available.

Learn, Test and Review Mode

Each test set comes with learn, test and review modes. In learn mode, learners will attempt a question and will get immediate feedback and complete remediation as they move on to the next question. In test mode, learners can take a timed test simulating the actual exam conditions. In review mode, learners can read through one item at a time without attempting it.

12. Performance Based Labs

uCertify's performance-based labs are Live Labs. Learn the real world skills using Live Labs. uCertify Labs are cloud-based, device-enabled and can be easily integrated with an LMS. Features of uCertify labs:

- Provide hands-on experience in a safe, online environment
- Labs simulate real world, hardware, software & CLI environment
- Flexible and inexpensive alternative to physical Labs
- Comes with well-organized component library for every task
- Highly interactive - learn by doing
- Explanations and remediation available
- Videos on how to perform

Lab Tasks

- Using Single-Line and Multi-Line Comments

- Running a JavaScript Code
- Understanding basic concepts of JavaScript
- Using Strict Mode
- Using Variable Scopes
- Using arithmetic operators
- Using Data Types
- Using Operators
- Using JavaScript Alerts and Prompts
- Using the alert() method
- Using the prompt() method
- Using the confirm() method
- Using Internal JavaScript
- Using noscript
- Using External JavaScript
- Using Constants
- Using the Debugger Keyword
- Setting Breakpoints in JavaScript
- Getting the Console Log Using JavaScript
- Using the Decision-Making Statements
- Using the if statement
- Working with the nested if statements
- Using the if-else statement
- Using the continue Statement
- Using the break Statement
- Using the while Loop
- Using the for Loop
- Using the do-while Loop
- Using the for loop
- Understanding the while loop
- Working with the do-while loop
- Using Multi-Dimensional Arrays
- Using the Array Methods
- Sorting and Searching in Array

- Using the indexOf() method
- Using the sort() method
- Knowing the Difference between Pass By Value and Pass By Reference
- Calling a Function
- Using the array.length() method
- Calling a function
- Using Nested Functions
- Using Different Mathematical Functions in JavaScript
- Using the toFixed() Function
- Using the isNaN() Function
- Using the parseInt() and parseFloat() Functions
- Using the isNaN() function
- Using the math.ceil() method
- Using the this Keyword
- Creating Objects
- Working with the objects
- Using the String Object
- Formatting strings
- Using the concat() method - Part I
- Using the concat() method - Part II
- Using the Date Object
- Calculating the Difference Between Two Dates
- Using Localization
- Using the Time Function in JavaScript
- Using the Date object
- Using the forEach() Method
- Using the forEach() method - Part I
- Using forEach() method - Part II
- Using the Window open() and close() Methods
- Using the JavaScript Window Screen
- Retrieving Elements by Tag Name
- Retrieving Elements
- Using the Onfocus and Onblur Events

- Using the DOM Event
- Understanding DOM events - Part I
- Understanding DOM events - Part II
- Understanding DOM events - Part III
- Using JavaScript innerHTML and document.write()
- Using innerHTML property
- Creating a Form
- Using the Select Object
- Using the Radio and Check Box Objects
- Using a Text Box Object
- Using the Password Object
- Using the POST Method
- Retrieving Form Values from Textbox
- Retrieving Form Values from a Dropdown
- Working with form Information
- Using Validation with JavaScript
- Validating a form
- Using the GET Method
- Using the onsubmit Event
- Using try and catch in JavaScript
- Knowing Syntax Errors
- Knowing Runtime Errors
- Using the finally Statement
- Working with errors and exceptions
- Using the throw Statement

Here's what you get

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PERFORMANCE BASED
LAB

61
VIDEO TUTORIALS


01:50
HOURS

13. Post-Assessment

After completion of the uCertify course Post-Assessments are given to students and often used in conjunction with a Pre-Assessment to measure their achievement and the effectiveness of the exam.

CONNECT WITH US

 3187 Independence Drive
Livermore, CA 94551,
United States

 +1-415-763-6300

 support@ucertify.com

 www.uCertify.com