Tel: (505) 387-7401



Course Title: JAVASCRIPT CORE SKILLS
Course #: IT 375

Credit Hours:4 Semester: SPRING 2022 Cap:15

Faculty: SUMATHI RAGAVANANATHAM E-mail: sragavanantham@navajotech.edu

Office: : IT Bldg Room 116 Office Phone: 505-786-4100

Office Hours (face-to-face or online): Monday 1-2 pm ONLINE

Preferred Communication (email and/or text; will respond within 24 hours)

Modality (face-to-face, hybrid, or online): ONLINE Class Location and Meeting Times (if face-to-face

Meeting Hours and Online Hours (if hybrid): (Friday 9:30 am to 12 pm)

Required Materials:

Textbook: JavaScript: the Definitive Guide: Activate Your Web Pages by David Flanagan

**Tools**: USB drive **Lab Fee**: None

### Mission, Vision, and Philosophy

*Mission:* Navajo Technical University honors Diné culture and language, while educating for the future. *Vision:* Navajo Technical University provides an excellent educational experience in a supportive, culturally diverse environment, enabling all community members to grow intellectually, culturally, and economically.

*Philosophy:* Through the teachings of Nitsáhákees (thinking), Nahátá (planning), Íína (implementing), and Siihasin (reflection), students acquire quality education in diverse fields, while preserving cultural values and gaining economic opportunities.

#### **Course Description**

This course focuses on JavaScript programming for client-side Web development. Students learn to create advanced interactive projects including games, data visualizations, generative art, and other browser-based interactive experiences. Students gain experience working with open source JavaScript libraries such as jQuery, the Google Maps API, D3.js and many others. Project-based assignments lead to a comprehensive portfolio Web site of all class projects.

Course Outcomes	Course Assessments
A strong knowledge of website design concepts	Complete reading assignments, homework assignments, exams, projects, and quizzes.
A strong understanding and skills of html &CSS	
A strong and deep knowledge of Demonstrate and	
apply the Document Object Model (DOM) and other	
fundamental Internet technologies accessible through	
JavaScript.	

# **Connections to Program Assessment (Course-Embedded Measures)**

## **Course Activities**

Week	Date	Class Topics/Reading Due	Assignments Due	Assessments
1	01/21/2022	Introduction & Creating HTML Web	Due before	F To F
		Pages	next class	
2	01/28/2022	Design CSS Stylesheets	"	ONLINE
	1/21/2022	Last day to add/drop		ONLINE
3	02/04/2022	Introduction to JavaScript, Placing	46	ONLINE
		JavaScript on a webpage, Using		
		variables		
4	02/11/2022	JavaScript Using functions,	46	ONLINE
		Operators, Conditionals and loops		
5	02/18/2022	Putting JavaScript in Events, The	46	ONLINE
		navigator object		
		JavaScript timers: SetTimeout and		
		SetInterval		
6	02/25/2022	Properties and methods of the	66	ONLINE
		DOM (Document Object Model)		
	2/25/2022	<b>Graduation Petition due</b>		ONLINE
7	03/04/2022	JavaScript arrays, Properties and	٠٠	ONLINE
		methods of arrays, Associative		
		arrays		
8	03/11/2022		MidTerm Exam	ONLINE
	3/14-18	SPRING BREAK		ONLINE
9	03/25/2022	Working with Numbers, Dates, and	٠٠	ONLINE
		Strings		
10	04/01/2022	Working with Forms, Validation,	٠.,	ONLINE
		Using form-based navigation		
	3/31/2022	Last day to withdraw with "W"		ONLINE
11	04/08/2022	Working with Dynamic		ONLINE
		Data(AJAX,JSON), Dynamic data		
		using jQuery		

12	04/15/2022	Introduction to jQuery		ONLINE
13	04/22/2022	jQuery: Styling Elements, Adding	"	ONLINE
		and removing elements		
14	04/29/2022	jQuery: Animating Elements,	"	ONLINE
		Scrolling, Resizing, Images and		
		Slideshows		
15	05/06/2022	Review for Finals		ONLINE
16	05/12/2022		Finals	ONLINE
	5/13/2022	Graduation		ONLINE

## **Grading Plan**

Homework: :20%
Class Participation: :5%
Project(s): :10%
Quizzes: :10%
Mid-term: :25%
Final Exam: :25%
Portfolio: :5%

A = 100-90% B = 89-80% C = 79-70% D = 69-60% F = 59% or less

#### **Grading Policy**

Students must do their own work. Cheating and plagiarism are strictly forbidden. Cheating includes (but is not limited to) plagiarism, submission of work that is not one's own, submission or use of falsified data, unauthorized access to exams or assignments, use of unauthorized material during an exam, or supplying or communicating unauthorized information for assignments or exams.

#### **Participation**

Students are expected to attend and participate in all class activities. Points will be given to students who actively participate in class activities including guest speakers, field trips, laboratories, and all other classroom events.

#### Cell phone and headphone use

Please turn cell phones off **before** coming to class. Cell phone courtesy is essential to quality classroom learning. Headphones must be removed before coming to class.

#### **Attendance Policy**

Students are expected to attend all class sessions. A percentage of the student's grade will be based on class attendance and participation. Absence from class, regardless of the reason, does not relieve the student of responsibility to complete all course work by required deadlines. Furthermore, it is the

student's responsibility to obtain notes, handouts, and any other information covered when absent from class and to arrange to make up any in-class assignments or tests if permitted by the instructor. Incomplete or missing assignments will necessarily affect the student's grades. Instructors will report excessive and/or unexplained absences to the Counseling Department for investigation and potential intervention. Instructors may drop students from the class after three (3) absences unless prior arrangements are made with the instructor to make up work and the instructor deems any excuse acceptable.

#### **Study Time Outside of Class for Face-to-Face Courses**

For every credit hour in class, a student is expected to spend two hours outside of class studying course materials.

## **Study Time for Hybrid or Blended Courses**

For a hybrid or blended course of one credit hour, a student is expected to spend three hours per week studying course materials.

## **Study Time for Online Courses**

For an online course of one credit hour, a student is expected to spend four hours per week studying course materials.

## **Academic Integrity**

Integrity (honesty) is expected of every student in all academic work. The guiding principle of academic integrity is that a student's submitted work must be the student's own. Students who engage in academic dishonesty diminish their education and bring discredit to the University community. Avoid situations likely to compromise academic integrity such as: cheating, facilitating academic dishonesty, and plagiarism; modifying academic work to obtain additional credit in the same class unless approved in advance by the instructor, failure to observe rules of academic integrity established by the instructor. The use of another person's ideas or work claimed as your own without acknowledging the original source is known as plagiarism and is prohibited.

#### **Diné Philosophy of Education**

The Diné Philosophy of Education (DPE) is incorporated into every class for students to become aware of and to understand the significance of the four Diné philosophical elements, including its affiliation with the four directions, four sacred mountains, the four set of thought processes and so forth: Nitsáhákees, Nahát'á, Íína and Siih Hasin which are essential and relevant to self-identity, respect and wisdom to achieve career goals successfully.

#### **Students with Disabilities**

The Navajo Technical University and Sumathi Ragavanantham, Assistant Professor, Schoolof Engineering, Math and Technology are committed to serving all enrolled students in a non-discriminatory and accommodating manner. Any student who feels he/she may need an accommodation based on the impact of disability or needs special accommodations should inform NTU in accordance with the procedures of the subsection entitled "Students with Disabilities" under Section 7: Student Support Programs, NTU Student Handbook.

#### **Email Address**

Students are required to use NTU's email address for all communications with faculty and staff.

Final Exam Date: May 12<sup>th</sup> 2022