ITP 225 (D01A)

Web Scripting Languages

Course Syllabus

Instructors	Chris Jones and Jeffrey Elkner
Session	Spring 2025
Meeting Times	A Day 11:32 am to 12:55 pm
Location	Arlington Career Center Rooms 511 and 512
Contact	cmj2310@email.vccs.edu and jde232@email.vccs.edu

Course Description

Introduces students to the principles, systems, and tools used to implement Web applications. Provides students with a comprehensive introduction to the programming tools and skills required to build and maintain interactive Web sites. Students will develop Web applications utilizing client-side and server-side scripting languages along with auxiliary tools needed for complete applications.

General Course Purpose

Client and server-side scripting languages are critical to the integrated Web application. This course will cover a broad spectrum of Web programming technologies. As such, the course will fill the void between client-side Web page development and server-side applications such as enterprise Java and ASP.NET server-side applications to give the student a complete picture of all types of Web development.

Course Prerequisites/Co-Requisites

Prerequisites: ITD 110 and ITP 100.

Course Objectives

Upon completing the course, the student will be able to:

- Demonstrate how Web servers work and how to administer them
- Include forms on the Web page
- Validate input on a Web page form using client-side validation and server-side validation and sanitation
- Activate a form action to call a server-side application
- Design and implement server-side applications using a server-side scripting language
- Access a server-side database
- Explain the ramifications of security for Web applications.
- Demonstrate how data interchange technologies fits into Web development
- Utilize a scripting language library or framework

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Major Topics to be Included

- Introduction to Web server technology, development tools, and Web-based applications
- Introduction to various methods used today to deploy web applications in a multi-developer work environment
- Introduction to the deployment of applications to a Web server
- Review of HTML (Hypertext Markup Language) and CSS (Cascading Style Sheets)
- Introduction to client-side scripting languages such as JavaScript in Web application development
- Introduction to data interchange formats
- Use a client-side programming language such as JavaScript to develop interactive Web content including forms, style sheets, data validation, and animation
- Introduction to server-side scripting languages such as Python in Web application development
- Use a server-side programming language such as Python to create dynamic web sites
- Use a server-side programming language such as Python to validate forms and sanitize data
- Review database operations
- Use a server-side programming language such as Python to integrate with a database in a web application
- Use a library/framework such as Django that supports a scripting language thus promoting Rapid Application Development (RAD)

Required Instructional Materials:

- Django for Everybody by Dr. Charles Severance
- Other freely available resources as provided by instructor

Course Credit: 4 credits

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Policies

I. Expectations

A. Introduction to Computer Science is a rigorous, college level course that will require sustained and consistent engagement from students.

B. An average of 90 minutes of homework will be assigned for each 90 minutes in class. We will be utilizing a flipped classroom learning environment, where the lecture portion of the course material will be viewed individually at home *before* class meets, and class time will be used for collaborative engagement and discussion.

C. Frequent "mini quizzes" at the beginning of class will be used to be sure homework readings and practice have been completed. To be successful in this class, students will be expected to be prepared for these quizzes when they arrive in class.

II. Grading Policies

A. Grading Scale: A= 100 - 90 B= 89 - 80 C= 79 - 70 D=69 - 60 F= 59 and below

B. Students will receive a weekly cumulative letter grade that will incorporate daily quizzes, tests, projects, and presentations. These weekly evaluations can be challenged by the student, *but only during the week immediately following when the evaluation is given*.

C. The average of the weekly evaluations will make up 70% of the final grade, with the course final exam making up 30%.

D. In cases where district grading policies conflict with college grading policies, the high school and college grades may differ; this may include assignment/test retakes, extended assignment due dates, capped minimum grade allowed, among other such district policies.

E. It is important that students check their final NOVA grades in SIS as soon as their course is completed.

F. Course Grade Appeals

i. Students who think that a semester grade is in error should contact the instructor immediately to present their concerns. Students who wish to appeal their grade or otherwise report a grievance will need to submit Form 125-021 within 20 days of the end of the semester. The original grade will stand if the student delays in submitting their appeal.

ii. NOVA's Student Grievance policy can be found here: https://www.nvcc.edu/policies/_files/608-Student-Grievances.pdf

iii. Form 125-021 can be found here: https://www.nvcc.edu/forms/

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III. Course Policies

A. Student Rights and Responsibilities
   i. Students should be familiar with the college's specific expectations concerning the conduct of its students. These expectations apply to all students, including Dual Enrollment students.
   ii. Student Rights and Responsibilities are outlined in the Student Code of Conduct, found here: https://www.nvcc.edu/students/handbook/conduct.html

B. Academic Integrity
   i.
   ii. To grant parents or guardians direct access to NOVA records, students will be required to submit a notarized copy of NOVA Form 125-356, found here: https://www.nvcc.edu/forms/pdf/125-356.pdf.
   iii. For more information about student privacy, parent limitations of access to students' educational records, and other restrictions on sharing students' personally identifiable information, please review NOVA Policy 613 (FERPA): https://www.nvcc.edu/policies/_files/613-FERPA.pdf.

D. Campus Services
   i. Dual enrolled students have access to full NOVA campus services to include tutoring, library, and counseling services; student resources are found here: http://www.nvcc.edu/students/index.html.

E. Office of Wellness and Mental Health
   i. During your time at NOVA, you may experience challenges including struggles with academics, finances, or your personal well-being. NOVA has support resources available. If you are seeking resources and support or if you are worried about a friend or classmate: https://www.nvcc.edu/wellness/index.html.

F. Course Drop and Withdrawal Policy
   i. Please note two important dates related to your enrollment in a course:
      a. The "Drop" date (also known as census date) for a course is the last day to drop a course. Dropping a course before the drop date will not appear on your NOVA transcript.
      b. The "Withdrawal" date is the last day to withdraw without a grade penalty. Dropping a course after the drop date and before the withdrawal date will result in a 'W' grade appearing on your transcript.
      c. To identify these dates for your dual enrollment course, please see below on the 'Course Schedule' chart or log into your myNOVA account and SIS.
   ii. Withdrawal Process
      a. Dual enrolled students are responsible for requesting to drop or withdraw from their DE classes, using Form 125-03, found at the following link: https://dashboard.nvcc.edu/Forms/125-03
      b. Dual enrolled students will use their myNOVA credentials to access the withdrawal form and will select one or more enrolled DE classes to withdraw.
      c. The withdrawal form is then routed to the assigned DE instructor and the Office of Dual Enrollment for review and approval.
      d. Check your VCCS email for the status of your request.

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G. Communication
   i. Students are required to use their VCCS email accounts (_____@email.vccs.edu) to communicate with college personnel and should check their email accounts regularly. Students may access their VCCS email accounts through myNOVA.

H. Title IX
   i. Title IX is a civil rights law that prohibits discrimination on the basis of sex in educational programs, activities, admission and employment. Complaints of sex-based discrimination, sexual violence, domestic violence, and sexual or gender-based harassment are governed by the Title IX Policy. For more information about Title IX or to make a report: https://www.nvcc.edu/titleix/index.html.

IV. Additional Course Information

A. DE students are expected to engage in college level course contents and discussions appropriate for adult learners. Mature topics may be discussed.

V. Course Schedule

A. Critical Course Dates

Course Start Date	Monday, February 3, 2025
Course Drop Date	Monday, February 24, 2025
Course Withdrawal Date	Friday, April 25, 2025
Final Exam Date	Thursday, June 12, 2025
Course End Date	Thursday, June 12, 2025

B. Final Exam Date: *The final exam will be given during the last day of class, Thursday, June 12th.*