CSC 200 (D01A)

Introduction to Computer Science

Course Syllabus

Instructor	Jeffrey Elkner
Session	Spring 2020
Meeting Days	B Day
Time	11:05 am - 12:30 pm / 1:45 - 3:10 pm
Location	Arlington Career Center Room 508
Contact	jeffrey.elkner@apsus.va / jde232@email.vccs.edu

Course Description:

Provides a broad introduction to computer science. Discusses architecture and function of computer hardware, including networks and operating systems, data and instruction representation and data organization. Covers software, algorithms, programming languages and software engineering. Discusses artificial intelligence and theory of computation. Includes a hands-on instructional component.

General Course Purpose:

This course is primarily intended for Computer Science majors. Tools for computer programming, problem analysis, algorithm development, and good programming style will be covered. A high-level computer language is introduced to implement solutions on a computer.

Course Prerequisites/Co-Requisites:

Prerequisite: Placement into ENG 111 and concurrent enrollment in Pre-calculus.

Course Objectives:

Upon completion of this course, the student will be able to:

- Define basic concepts of computer system architecture, networks, operating systems and data representation and organization.
- Define basic concepts of software engineering, theory of computations, programming languages and artificial intelligence.
- Use a GUI programming environment and console to edit and test computer programs.
- Analyze a simple problem and develop an algorithm for its solution.
- Implement an algorithm in a high-level computer language, demonstrating good style and appropriate documentation using simple control structures, subprograms, and parameter passing.

CSC 200 (D01A)

Introduction to Computer Science

Course Syllabus

Major Topics to be Included:

- Survey of Computer Science
  - Computer System Architecture
  - Computer Networks
  - Operating Systems
  - Data Representation and Organization
  - Software Engineering
  - Algorithms and Theory of Computation
  - Programming Languages
  - Artificial Intelligence and Other Topics

- Software Development
  - Problem Analysis and Algorithm Development
  - Programming Tools
  - Programming Style, Documentation and Program Testing
  - Data Types and Operations
  - Control Structures
  - Input/output
  - Subprograms and Parameters
  - Introduction to Object Oriented Programming

Required Instructional Materials:

- SoloLearn Python 3 Tutorial
- Other freely available resources as provided by instructor

Course Credit: 4 credits

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. Daily "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.

CSC 200 (D01A)

Introduction to Computer Science

Course Syllabus

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 Blackboard as soon as the course(s) completed.

III. Course Policies

a. Academic Integrity

i. The College does not tolerate academic dishonesty. Students who are not honest in their academic work will face disciplinary action along with any grade penalty the instructor imposes. Procedures for disciplinary measures and appeals are outlined in the Student Handbook (http://www.nvcc.edu/students/handbook/). In extreme cases, academic dishonesty may result in dismissal from the College.

ii. Plagiarism: is the act of appropriating passages from the work of another individual, either word for word or in substance, and representing them as one's own work. This includes any submission of written work other than one's own. In short, plagiarism means using the exact words, opinions, or factual information from another person without giving that person credit. Students who are not honest in their academic work will face disciplinary action along with any grade penalty the instructor imposes. For more information about student academic integrity: https://www.nvcc.edu/curcatalog/policies/integrity.html**.**

b. Disabilities

i. Students with disabilities are required to contact NOVA's Office of Disability Support Services (DSS) to discuss possible accommodations. All information is kept confidential and may increase your chances of success in the academic setting. If accommodations are agreed upon, student will receive a Memorandum of Accommodation (MOA) by DSS. For more information about NOVA's DSS office: https://www.nvcc.edu/disability-services.

c. Self-Advocacy

i. Students are expected to reach out to their instructor if they do not understand content or expectations.

ii. College instructors and other college personnel will not talk with a parent without the permission of and presence of the student. The conversation is between the administrator / faculty member and the student. The parent's role is to listen, give moral support, and summarize information and agreements if needed.

iii. 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

CSC 200 (D01A)

Introduction to Computer Science

Course Syllabus

IV. Course Schedule

a. Critical Course Dates

Course Start Date	Monday, February 3, 2020
Course Drop Date	Friday, February 21, 2020
Course Withdrawal Date	Friday, April 24, 2020
Final Exam Date	Week of June 15 to 19, 2020
Course End Date	Friday, June 19, 2020

b. Final Exam Date: *The final exam will be given during the last week of class, between Monday, June 15 and Friday, June 19.*