CSCI120N ZZ
Introduction to Scripting - Python

Fall 2023

Department	Engineering and Computer Science
Instructor	Carol Roberts
NCC Email	CRoberts@ccsnh.edu
Telephone Number	
Office Hours	By Zoom appointment
Office Location	
Class Days/Meeting Time	
Class Location	Online

Rationale

This course introduces the use of Python for scripting, writing short, focused programs. Python is a very easy language to learn and supported with many powerful libraries. It is used for applications, automating system administration and networking tasks. It is also ideal for Data Analytics due to the ease with which data can be manipulated and visualized.
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Course Description

This course introduces the use of Python as a scripting language. It covers the syntax, data types, conditional control structures, looping and the use of functions. The use of lists, dictionaries and sets is described. Object-oriented terminology and programming concepts are introduced, including the use of classes, methods and properties. The selection and use of libraries is included. The course covers data retrieval, analysis and reporting using tuples read from files, NoSQL and SQL databases.

Labs allow students to apply the concepts taught, students will learn how to create and execute Python scripts as well as debugging, testing and troubleshooting techniques.

Prerequisite: Placement into College level Mathematics

Course Competencies

Competency (Knowledge and Skills)	Critical Thinking Level
1. Apply basic problem solving skills	Application
2. Write syntactically correct Python scripts	Application
3. Code appropriate decision structures and logic	Synthesis
4. Demonstrate the ability to represent data in Object Oriented software	Synthesis
5. Develop scripts which read from persistent storage, perform analysis and produce easy-to-read reports	Synthesis

Essential Questions

Identify the appropriate data type of a variable
Process information stored in variables
Perform input and output operations with data
Design algorithms for automatic information processing

Required Materials

Starting Out with Python

By: Tony Gaddis

Publisher: Pearson
eText ISBN: 9780137871209
Edition: 6th
Copyright year: 2023
Click this link to purchase from the publisher:
Starting Out with Python (pearson.com)
Click on this link to access the NCC bookstore's website:
https://www.bkstr.com/nashuaccstore/home

Technology

In order to be successful at NCC, all students need a laptop or personal computer (PC) as well as reliable internet access. It is recommended that students purchase a laptop for in-class use. Specifications can be found by clicking on the link below. If you do not have Internet access or the right kind of computer equipment (e.g., laptop, webcam, etc.) you may be eligible for the college's technology lending program, which is a first come first served program. Click on this link for more information https://www.nashuacc.edu/technology

Laptops that meet NCC technology specifications are available for purchase at the NCC bookstore. Financial aid may be used for purchases made at the bookstore. Contact the bookstore for more information https://www.bkstr.com/nashuaccstore/home

Course Expectations

ASSIGNMENT GROUND RULES

1. Each student is responsible for all assignments.
2. Due dates are given with all assignments, assignments must be submitted by the due date. Grades may be reduced by a penalty for late submissions.

ASSIGNMENTS

Assignments are coding exercises which allow students to apply the skills for the class.

QUIZZES

1. There will be weekly quizzes.
2. Quizzes consist of 20 multiple choice/true-false questions.
3. Students are responsible for information in assigned readings and video lectures.

DISCUSSIONS

There are weekly discussions where students do postings and respond to each other on a topic related to the weekly content.

Updated 1 Jun

Grading

The grades are weighted as follows:

- 45% Assignments
- 45% Exams
- 10% Discussions

Grades will be assigned according to the department scale:

Grading System:

A	93 - 100	B	83 - 86.9	C	73 - 76.9	D	63 - 66.9
A-	90 - 92.9	B-	80 - 82.9	C-	70 - 72.9	D-	60 - 62.9
B+	87 - 89.9	C+	77 - 79.9	D+	67 - 69.9	F	0 - 59.9

Diversity, Equity and Inclusion Statement

We are all responsible for creating a diverse, equitable, inclusive, and just environment. Thus, we must treat individuals with respect by valuing all types of diversity. This is fundamental in creating a welcoming and inclusive learning environment. Diversity may include multiple ways of identifying ourselves, including, but not limited to race, color, national origin, language, sex, disability, age, sexual orientation, gender identity, religion, creed, ancestry, belief, veteran status, or genetic information. These diverse identities, among many others not mentioned, influence the perspectives our students, faculty, and staff bring to the NCC community. Through use of various approaches that enhance intellectually rich, respectful, safe, and inclusive learning environments, this dynamic process will demonstrate our sustained commitment at NCC. It is our core belief that diversity, equity, and inclusion promote excellence, collaboration, and innovation while also seeking justice.

Available Support Services

NCC Library: Get help with research for your papers and assignments from the NCC librarian and staff. Email**ncclibrary@ccsnh.edu**

Tutoring and Writing Center: The Tutoring and Writing Center, located in the library, offers free academic support services to all NCC students. Meet in-person or via Zoom with experts who can tutor you in math or accounting or help you with writing for any course. Tutoring is drop-in or by appointment. View the current tutoring schedule at **https://library.nashuacc.edu/home/tutoring**

Online chat tutoring is also available 24/7 with Smarthinking. Find a link on the left navigation menu inside Canvas courses.

Disability & Accessibility *(Reasonable Accommodation Plan):* Students who think they may have or have a documented disability *(physical, learning, or mental health)* and/or had an IEP or 504 Plan in high school who may need classroom accommodations must meet with the Disability Services Coordinator to set up an NCC Reasonable Accommodation Plan (RAP). For more information view the Disability & Accessibility page: https://www.nashuacc.edu/student-services/disability-accessibility-information and/or contact Jodi Quinn, Disability Services Coordinator (office located in the library), atjquinn@ccnsh.edu or (603) 578-8996.

In order to receive reasonable accommodations, it is the student's responsibility to email the current semester's RAP to each instructor and as needed meet with instructors to discuss the Plan. Each term the student wants to utilize accommodations, the RAP must be renewed and the student provides the current term Plan to instructors even if provided a Plan to an instructor for a previous term course.

Audio Record Classroom Lecture: Please note that as a student in this class, you may have a classmate who by permission can audio record class lectures for his/her learning purposes. ***Only students with prior written permission*** from the instructor or the Disabilities Services Coordinator may audio record class lectures **-** *for educational purposes only*. Students who audio record class lectures are prohibited from selling, transcribing, or distributing the recordings in *any manner* and are asked to delete the recordings when it is no longer essential for their learning purposes.

Instructors may record their own class lectures, activities, and discussions using electronic video, still photo, or audio recording for educational purposes, including academic research, professional development, and recording of course content for access through online learning and other formats. Every student present will be informed by the instructor of any recording at the beginning of class.

CARE Team

If you need information or a referral to local resources in the areas of Mental Health or basic support services (such as food, clothing, shelter, substance abuse or others including domestic and sexual violence), you can email the NCC CARE team (NCCCares@ccsnh.edu) and we will assist you in connecting to community resources.

Department Policies

Professionalism includes the following:

Students are expected to adhere to the "NCC Student Code of Conduct" as described in the "NCC Student Handbook"
https://www.nashuacc.edu/images/PDF/handbook/2021-2022-NCC-Student-Handbook.pdf

Students are also expected to contribute to a cooperative and productive learning environment. To meet this objective, students are expected to show up for class on time, be attentive, not disrupt the instructor or other students, work quietly and use time in the lab time to complete assigned work, stay in lab until assigned work is complete, demonstrate respect for other people, demonstrate initiative and self-motivation, and take responsibility for academic success.

Attendance:

Attendance is vital to the student's success in this course. You are expected to do the assigned readings, watch videos, and complete graded work each week.

Assignments:

Assigned homework is due by the date listed in our Canvas course. Assignments are accepted up to one week late with a penalty. After the late week, the student requres permission from the instructor prior to submission.

Quizzes:

Quizzes must be taken by the posted due date and are not accepted late.

College Policies

Non-Discrimination Policy: The NCC Equity Committee is designated to coordinate compliance with the Non-Discrimination Policy and handles all concerns of discrimination that occur on campus that are not covered under Title IX. View more information here Non-Discrimination Policy and Grievance Procedure

Title IX Policy Classroom instructors at Nashua Community College are encouraged to create and maintain a safe learning environment in which students feel able to share opinions and related life experiences in classroom discussions, in written work, and in meetings with professors. To the greatest extent possible, this information will be kept private. However, staff and faculty have a legal obligation to report information concerning sexual misconduct, violence and exploitation of individuals per federal statute and in compliance with established policies and procedures at Nashua Community College. If you have been subjected to sexual misconduct, violence or exploitation, we encourage you to contact your Title IX Coordinator, Vice President Lizbeth Gonzalez, for support and assistance. She can be reached at Nashua Community College, 505 Amherst Street, Nashua, NH, 603-578-8928 or lgonzalez@ccsnh.edu. View more information here Title IX Policy and Grievance Procedure

Attendance: Regular attendance and active participation are essential for academic success. Every student should carefully review the department and college attendance requirements posted in the Department and College Policies Sections of this syllabus.

If a student must be absent from class, the student should contact his/her professor and follow the professor's make up policy listed in the syllabus under Course Expectations. In an online or hybrid class, measures of attendance and active participation include

contributing to discussion board, submitting an assignment, taking a test or quiz on Canvas, etc. Logging into Canvas does not count as class attendance or participation. (For a complete definition of active participation, see regular and substantive interaction statement in student handbook.)

Rarely, a student may experience a serious situation that prevents that student from attending class for an extended period. This could be for reasons such as illness/hospitalization, loss of childcare, or lack of transportation. In these situations, the student should notify his/her professor as soon as possible and contact the advising center for assistance NCCAcademicAdvisingCenter@ccsnh.edu.

AF Policy: In all cases, faculty **will** issue an AF grade if a student has 1) missed more than two consecutive weeks of class and 2) failed to communicate with the instructor by responding to EAB attendance alerts and other outreach.

Students should also refer to department attendance policy under the Department Policies section of the syllabus.

In addition, an instructor or administrator may issue an AF grade if a student's behavior violates the Student Code of Conduct and disrupts classroom instruction.

Please be advised that if the behavior of any student (or students) disrupts the learning of his/her classmates, the following steps will be taken by the instructor 1) verbal warning; 2) meeting with instructor and department chair; 3) filing of written complaint and referral to Vice President of Academic Affairs for possible removal from the course with AF grade.

An AF grade may also be issued if a student registered in a clinic, practicum, internship, or lab is deemed unsafe or performing in an unsatisfactory manner as determined by an evaluation by a faculty member/agency supervisor in accordance with department criteria and procedure.

An "AF" grade is calculated in the GPA as an "F". Students should refer to the student handbook for additional information about the AF policy.

Canvas: Canvas is the online learning management system used by instructors and learners at Nashua Community College. Instructors will post syllabi, course related documents and grades in Canvas. Students may be required to submit assignments and/or take assessments through Canvas and/or participate in discussion boards. **If class is ever cancelled because of instructor illness or inclement weather, students will need to check Canvas for their assignment.**

24/7 Canvas Support: To access support through email, phone or chat click on the help icon. Students can also find guides, videos, and a Canvas community by clicking on the *CCSNH Resources* icon on the tool bar at the left of the Canvas screen then choosing Canvas Resources.

If you have forgotten your Easy Login Password information, please visit the following link: https://password.ccsnh.edu/accounts/Reset

EAB Alerts Faculty can issue "Alerts" for students at any time. The administration at NCC encourages professors to issue alerts for any student who may be having difficulty in the course. When a faculty member raises an alert, both the student and student's advisor receive an automated email based on the alert raised. Faculty can issue an alert through EAB Navigate on the college website or directly using the following link: https://nashuacc.campus.eab.com

College Email System: Nashua Community College has established a College email system as a means of the College sending official information to enrolled students, and for students to send communication to their instructors and College personnel. All students registered at NCC will be assigned a College email account/address to be used as the only email address for all email communication: 1) sent to the students from their instructors and from all College personnel; and, 2) sent by the students to their instructors and to all College personnel.

In addition:

- Students should check their College email account regularly to ensure they are staying current with all official communications. Official communication includes, but is not limited to, policy announcements, registration and billing information, schedule changes, emergency notifications and other critical and time sensitive information.
- Students should also check their college email account to be sure that they are current with all email communication from their faculty.
- The student email account/address should be the only e-mail address students use to send email to faculty and College personnel so that student email is recognized and opened.
- This service is provided exclusively to the students of NCC. Accounts are for individual use only, and are not transferable or to be used by any other individual.
- Students using their College email account do so under the policies set forth in the Student Handbook under "Student Computer Conduct Code".

Sensitive Materials Policy: During the semester, in order to cover certain academic topics, there may be occasions to view or discuss material which may not meet the student's own personal definition of appropriateness. At such times, every student has the right to decide not to participate. Every effort will be made by the instructor to notify students in advance of when such sensitive material will be

used so that students can make alternative arrangements. Faculty will guide students in the identification of alternate learning opportunities consistent with relevant course objectives so that students opting out of scheduled "sensitive" learning experiences will not be penalized academically in any way. Please note the opportunity to leave the classroom discretely is always available to each student when such sensitive material is being discussed. The student then has the responsibility before the next class meeting to inform the instructor as to the reason for leaving.

Plagiarism Policy: Plagiarism is a serious violation of a student's academic integrity and the trust between a student and his or her teachers. Plagiarism is the act of a person presenting another person's work as if it were his or her own original work. Such acts of plagiarism include, but are not limited to:

1. A student submitting as his or her own work an entire essay or other assignment written by another person.
2. A student submitting as his or her own creation the artwork (including but not limited to a painting, drawing, photograph, object, digital representation) of another person.
3. A student taking word for word a section or sections of another person's work without proper acknowledgment of the source and quotation.
4. A student using statistics or other such facts or insights as if these were the result of the student's efforts and thus lacking proper acknowledgment of the original source.
5. The paraphrasing of another person's unique work with no acknowledgment of the original source.
6. Copying another student's work on a quiz or test.

Some instructors may consider self-plagiarism to be a form of plagiarism. Self-plagiarism includes**submitting the same paper** in response to **two different** assignments. Please consult with your instructor and carefully review instructor expectations posted on your syllabus if you have any questions.

When a student is found to have plagiarized an academic assignment, it will be up to each instructor to determine the grading penalty. **Depending on the severity of the incident**, this could range from a warning to a loss of credit for the course. In all cases of plagiarism, the instructor will notify the student's advisor by posting an alert on EAB Navigate. The advisor will then document the incident on EAB using advisor notes. If any further incidents of plagiarism are reported to the student's advisor, the advisor or VPAA will file a complaint with the appropriate college Judicial Body. Additional sanctions may be imposed. For other examples of Academic Misconduct and a full description of the Student Disciplinary Process, please refer to the NCC Student Handbook https://www.nashuacc.edu/images/PDF/handbook/2021-2022-NCC-Student-Handbook.pdf

Credit Hour Guidelines

1. A credit hour shall be the equivalent of one (1) hour of classroom or direct faculty instruction and a minimum of two (2) hours of out-of-class student work each week for 15 or 16 weeks.
2. A credit hour shall be allocated based on the following:

Category	Contact Hours per Week	Contact Hours per Sem. (based on minimum 15 week semester)
Class	1	15
Laboratory	2 or 3	30-45
Clinical	3 to 5	45-75
Practicum, Fieldwork	3	45
Internship	3 to 6	45-90
Co-op	Variable by Dept.	Variable by Dept.

Course Calendar

Week	Topic	Target Competencies
1	Python Basics	1, 2
2	Conditions	1, 2, 3
3	Loops	1, 2, 3
4	Functions and Files	1, 2, 3, 5
5	Lists	1, 2, 3
6	Strings and Dictionaries	1, 2, 3, 4, 5
7	Classes	3, 4
8	Databases	1, 2, 3, 5

* Targeted competencies refer to the established course competencies listed above.

<u>The schedule is subject to change</u>.