

	<b>Intro to Scripting – Python CSCI120N ES Fall 2021</b>
<b>Department</b>	<b>Engineering and Computer Science</b>
<b>Instructor</b>	<b>Scott Gray</b>
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<b>Telephone Number</b>	N/A
<b>Office Hours</b>	Appointments available upon request
<b>Office Location</b>	Online
<b>Class Days/Meeting Time</b>	<b>New Module Released Weekly</b>
<b>Class Location</b>	<b>Online</b>

## Rationale:

*Python is one of the highest skills requested on software engineering job sites. It is a simple scripting/programming language allowing the user to automate common computer tasks. It is in heavy use in the fields of Data Science and Artificial Intelligence.*

## Course Description:

*CSCI120N Introduction to Scripting - Python 3 Credits*

*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: ACCUPLACER score recommendation into College level Mathematics.*

## Course Competencies:

<b>Competency (Knowledge and Skills)</b>	<b>Critical Thinking Level</b>
<b>1. Apply basic problem-solving skills</b>	Application
<b>2. Write syntactically correct Python scripts</b>	Application
<b>3. Code appropriate decision structures and logic</b>	Synthesis
<b>4. Understand the fundamentals of object-oriented programming</b>	Comprehension
<b>5. Develop scripts which read from persistent storage, perform analysis and produce easy-to-read reports</b>	Synthesis

## Essential Questions:

How do I write a computer program?  
 Why should I learn a scripting language like Python?  
 How do I organize and execute complex processing tasks?  
 How do I read and write data to a file or database?

## Required Materials:

### Textbook(s)

#### **Starting Out with Python, 4th Edition**

Author: Tony Gaddis

Print ISBN: 9780134444321, 0134444329

eText ISBN: 9780134484693, 013448469X

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> [Note: webpage is still under construction]

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>

## **Supplemental Materials:**

*Supplemental materials will be provided in class.*

## **Course Expectations:**

### *ASSIGNMENT GROUND RULES*

- 1. Each student is responsible for all assignments.*
- 2. Due dates are given with all assignments, and assignments must be submitted by the due date. Grades may be reduced by a penalty for late submissions.*
- 3. At the instructor's discretion, students may resubmit assignments with corrections to raise the grade. Resubmissions are only allowed for assignments which were submitted on time.*

### *LABS*

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

### *EXAMS*

- 1. There will be a midterm and a final exam*
- 2. Exams will consist of approximately 50 true/false, multiple choice, matching and short answer questions.*
- 3. Students are responsible for information in assigned reading and lectures.*
- 4. The final exam will be cumulative.*

### *HOMEWORK*

*Short quizzes in Canvas are used for homework. These quizzes reinforce key information from the text or lectures.*

*This course is taught 100% online. Modules are released weekly, with assignments being due that week.*

## **Grading:**

*The grades are weighted as follows*

- 40% Labs
- 30% Exams
- 30% Homework

Grades will be assigned according to the department scale:

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**

**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.

**Classroom Accommodations:** Students who have a documented disability (physical, learning, or mental health) and require reasonable classroom accommodations must meet with the Disabilities Support Coordinator to set up an NCC Reasonable Accommodation Plan (RAP). If you had an IEP or 504 in high school, you may qualify for a plan. If you would like more information or if you are not sure if you qualify for a plan, please contact Jodi Quinn, Disabilities Support Coordinator, located in The Academic Success Center in the library, 603-578-8900 ext. 1451. View additional information and the application here: <http://www.nashuacc.edu/student-services/academic-success-center/disability-services> In order to receive classroom accommodations, it is the student's responsibility to meet with his/her instructor privately and provide a hard copy of

the signed Reasonable Accommodation Plan (RAP) each term the student wants to utilize classroom accommodations even if the student has had that instructor in a previous term.

**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 Support 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.

## 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://nashuacc.edu/images/PDF/handbook/2019-2020-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 attend, do the work in the week that it is assigned, and meet all class due dates and participation in assigned discussion groups. You are responsible for all material and information presented in the course class (whether present or not). If you will be absent from the course such that you would miss an upcoming assignment due date, you must get permission from the instructor in advance.

Notes Missed:

N/A

Lab / Homework Assignments:

Assigned homework will be due as specified in the write-up of the assignment. Your homework will be checked for effort and completeness. All work during the scheduled lab time must be submitted before the student leaves the lab (or in the case of online, before the due date), even if only partially completed. The student will automatically receive a "0" for that lab if they don't. This applies even if additional files or updates to the lab are to be uploaded later. For those labs where students work with a partner (specifically in engineering courses), the final lab write-up describing the results needs to be individually written and submitted.

Exams:

(For in class exams): The exams and final project presentations (if applicable) must be given on the date announced by the instructor. Only in an extreme case will a make-up be permitted. The student also must provide documentation for the absence, and it is the student's responsibility to notify the instructor of the absence prior to the exam. In addition, the instructor may choose to move the seating assignments for exams /quizzes.

Cell Phones/Laptops:

DO NOT TEXT OR TALK ON THE PHONE DURING CLASS. It is rude and will not be tolerated. If something important should arise and you need to use your cell phone you are expected to excuse yourself from the room before completing the call or text. Please let the instructor know before class starts that you may be expecting an important call, etc. If you need to leave your cell phone on, please use the vibrate mode. Penalties will be applied as designated by the instructor if you are caught using it or if your phone rings. Laptop computers are also not to be used during class without first getting instructor permission.

## 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 representative Lizbeth Gonzalez, 603-578-

8900 x1528 or [lgonzalez@ccsnh.edu](mailto:lgonzalez@ccsnh.edu) for support and assistance. View more information here [Title IX Policy and Grievance Procedure](#)

**Attendance:** Regular attendance and active class participation are essential for academic success. 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.

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 [NCCAcademicAdvising@ccsnh.edu](mailto:NCCAcademicAdvising@ccsnh.edu).

**AF Policy:** If a student misses more than the number of hours the course meets during a two-week period (e.g. six hours for a three credit course), the faculty may withdraw a student from the course with an "AF" grade. Please note that absences, tardies, and leaving class early all count towards "missed class time." In an online or hybrid course, the faculty may withdraw a student for not participating in online activities and/or submitting assignments for two weeks. Logging into Canvas does not count as participation.

Students should also understand an AF grade can be assigned by an instructor or an administrator at any time for reasons other than poor grade performance or failure to meet attendance requirements e.g., violation of the Student Code of Conduct, disruptive behavior, etc.


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

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  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>

**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 penalty. Depending on the severity of the incident, this could range from a warning to a loss of credit for the assignment. 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, additional sanctions will be imposed. These may include notification of the Vice President of Academic Affairs; loss of credit for the course; suspension or dismissal from a department program; academic probation; and/or expulsion from the College.

### 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	Targeted Competencies*
1	Computers and Programming	1
2	Input and Output	1, 2
3	Decision Structures	3
4	Repetition Structures	3
5	Functions	3
6	Files and Exceptions	2, 5
7	Lists and Tuples	3
8	Advance Strings	2
9	Dictionaries and Sets	2
10	Object-Oriented Programming	4
11	Inheritance	4
12	Recursion	3
13	GUI Programming	2, 3
14	JSON Files and Data Storage	5
15	Relational Databases	5
16	NoSQL Databases	5

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

**This schedule is subject to change**