

College of Southern Nevada - Course Syllabus – CIT248 - Advanced Python Programming

Spring 2023 – 1/17/2023 – 5/14/2023

Course Information –

This course is the continuation of CIT148. It focuses on Python as an object-oriented language and introduces Python collections, modules, and packages. Techniques for accessing data in relational databases and testing methodologies will be included as part of development of larger programs. Prerequisite: CIT148 with a grade of C or better or instructor approval.

Learning Outcomes - Upon completion of this course the student will be able to:

1. Create object-oriented programs.
2. Integrate appropriate collections into programs.
3. Create programs that use modules and packages.
4. Create programs that access a relational database management system.
5. Integrate appropriate program testing and debugging strategies as part of program development.

Course meeting time/days/location – Online

CIT 248 -1001 – Online

Instructor Information

Name: Naser E. Heravi

Phone: (702) 651-5559

Office Hours/Location:

Tuesday: 11:00am – 1:00pm – West Charleston Campus, Building C, WCC151G

Wednesday: 1:30 pm – 3:00 pm – Virtual in Canvas and Discord

Email: Canvas Learning system – Alternate: naser.heravi@csn.edu

Here is my [Web site](#)

Office Mailbox code: WCC151

Textbook A textbook is not required. We will use material from **Net Academy** and other online resources. I'll provide login instructions on the first day of class.

Software/hardware requirements - We use a typical Windows machine or Mac for this course. The Canvas Learning Management system can be run on most popular web browsers such as Internet Explorer, Firefox, Safari, etc. Canvas runs on Windows, Mac, Linux, iOS, Android, or any other device with a modern web browser.

Python is available **for both Mac and Windows** - Detailed information on installation and use will be provided in Canvas.

We will use the Lockdown browser for taking quizzes and exams. Detailed information will be posted in Canvas on the use of Lockdown browser.

Late Work policy - I may accept late assignments one day after the due date with a 10% late penalty. If so, the due date and the late due date will be clearly shown in Canvas. I do not accept late work for exams. There are NO MAKEUP exams or quizzes. You are responsible for your own Internet connection when working remotely. Work ahead if you know you are going to have conflicts or time constraints. Please schedule yourself accordingly.

Method of Evaluation - Grades are based on exams and projects assigned throughout the semester. All assignments will be submitted via the Canvas assignment drobox. Detailed instructions will be provided in the text of the requirements for each of the assignments. If Canvas email system fails and you must use a different system to submit your assignments, send your assignment files to my alternate email address. All exams are delivered through the Canvas system. All exams will have strict time limits and detailed information will be provided at least a week before the date of the exam.

Grade determination - Your grade is based 2 exams, and programming assignments.

Midterm Exam - 20%

Final Exam - 20%

Assignments and Graded Discussions - 60%

All exams may include True/False, Multiple-choice, short answers, and essay type questions. Full details will be provided a week before the start of an exam. The following is how letter grades are assigned based on total percentages of assignments and exams.

100 - 94 A
90 - < 94 A-
87 - < 90 B+
84 - < 87 B
80 - < 84 B-
77 - < 80 C+
70 - < 77 C
60 - < 70 D
< 60 F

Important Note - If you have any concerns about this course and/or me, please contact me first. If I cannot resolve your issue, please contact CIT Department Office at 702-651-5976. You will be directed to the appropriate Program Director or the Department Chair. You will remain anonymous, if possible, and all communications will be strictly confidential. Please DO NOT wait until the last minute to make your concerns known to me and/or to the CIT Department.

CSN Student email - All students enrolled at CSN have a CSN Student Email account. All information from the college will be sent to your CSN-issued student email address (enrollment information, financial aid information, cashier information, college events, etc.). **It is extremely**

important that you check your student email daily. You can access your student email through GoCSN (go.csn.edu). Once you validate your student email address you will have access to Microsoft Office 365 for up to five devices and 1TB of OneDrive storage. Visit the [CSN Information web site](#) for additional information.

Attendance Policy - College assumes maturity, seriousness of purpose, and self-discipline for meeting the responsibilities associated with each course. If you will need the instructor to sign documents testifying about your attendance, **YOU** must come to the instructor after each class you attend to let them know you were there. Class participation is a strong aspect of this course, and your participation is always encouraged.

Academic Integrity - Taking the words of others or presenting the ideas of others as your own not only limits your academic research skills, it also violates the CSN's Student Academic Integrity Policy. Cheating on exams or other course work also violates the CSN Student Academic Integrity Policy. You can find more information about CSN's Academic Integrity Policy at the [Academic Integrity Web Site](#). The minimum penalty for such offenses in this course is to fail the assignment. Failing the course will also be considered as an option. Infractions of the CSN Student Academic Integrity Policy may lead to suspensions, expulsion, transcript notations or other sanctions.

You **SHOULD NOT** attempt to pay anyone to complete your work. You **SHOULD NOT** consult any web sites that provide answers to assignments.

CSN Americans with Disabilities Act (ADA) Statement and current Disability Resource Center (DRC) Contact Information - The College of Southern Nevada is committed to making physical facilities and instructional programs accessible to students with disabilities. If you have a disability that may have some impact on your work in this class and for which you may require accommodations, please visit the Disability Resource Center (DRC) so that such accommodations can be considered. All discussions will remain confidential. The DRC has offices on all three campuses. These serve as the focal point for coordination of services for students with disabilities. If you have a physical, emotional, or mental disability that “substantially limits one or more major life activities (including walking, seeing, hearing, speaking, breathing, learning and working),” and will require accommodation in this class, please contact the DRC at West Charleston 702 – 651 – 5644, or email at WCDRCStaff@csn.edu or at North Las Vegas 702–651–4045, or email at CYDRCStaff@csn.edu or at Henderson 702–651–3795 , or email at HCDRCStaff@csn.edu. For Deaf and Hard of Hearing Services contact the DRC using 70 –651–4448, or email at Deaf.HH.Services@csn.edu. Any student who receives an accommodation letter from the DRC, please meet with me to discuss the provisions of those accommodations as soon as possible.

Student Rights & Responsibilities - When you choose to become a student at CSN, you accept the rights and responsibilities of membership in CSN's academic and social community. You can find policies covering students such as the Student Conduct, Students' Right to Know, Students' Academic Integrity, and Disruptive and Abusive Student in the following locations:

- Catalog and Student Handbook ([Catalog Web Page](#)) in the Policies and Procedures section.
- CSN Website ([Student Policies](#)) under the heading “Student Policies.”

College Library Services - CSN Libraries provides support for students completing assignments that require research and the use of information. Librarians are available to students for one-on-one assistance locating and citing quality information either online at the [Library information](#) or at one of our campus libraries. Find more information on our main website at the [Library main page](#).

Safety - This class does not have an experiment lab and therefore we will not be concerned about following specific safety strategies. However, Approved classroom safety procedures are posted in each classroom and are to be followed. Students are to familiarize themselves with the nearest exit to use during fire alarm exercises. Do NOT use the elevators during these drills. Students will take ALL personal belongings with them when exiting the building. No student will be allowed back into the facility until the all clear is given.

Public Health Directives (COVID-19) - Students must follow all active CSN public health directives while enrolled in this class. CSN public health directives are found at the [CSN Covid-19 Information](#).

Counseling and Psychological Services (CAPS) - The Counseling and Psychological Services (CAPS) offers short-term, problem-focused counseling to CSN students who may feel overwhelmed by the responsibilities of college, work, family, and relationships. Clinicians are available to help students cope with stresses and personal issues that may interfere with their ability to perform in school. The service is provided confidentially and free to currently enrolled students. To schedule an appointment, please call CAPS at WC (702) 651-5518, at NLV (702) 651-4099, and at HN (702) 651-3099.

Food and Housing Insecurity Support - Any student who has difficulty affording groceries or accessing sufficient food to eat every day, or who lacks a safe and stable place to live and believes this may affect their performance in the course, is urged to contact Counseling & Psychological Services (CAPS), for a list of resources and support.

References - Safari Tech Books available through the library offer an excellent source of supplemental resources that you may use for this course. To find Safari Books Online, go to the [Library's web site](#). To access the resources, always use your Canvas credentials and always use your CSN student email address.

Required extra- or co-curricular activities - All activities are based on projects and exams assigned throughout the course. Any required extra activities will be clearly explained in class.

Additional fees - There are no additional fees for this course.

Advising & Coaching Services - Advisor/Success Coaches help students assess academic strengths and limitations, learn academic success strategies, explore careers, declare a major, navigate the educational system, access campus and community resources, and connect to campus life. The department also manages the CSN Faculty E-Alert System assisting instructional staff by working with students on strategies and interventions that lead to successful course

completion. Contact Information: Charleston Campus: Building D – Student Services Area : 702–651–5670, North Las Vegas Campus: Student Services Area : 702–651–4049, Henderson Campus: Building B – Room 120 : 702 – 651–3165. Visit the [Advising web site](#) for more information.

Additional Notes

My responsibilities:

1. I will reply to your e-mail messages in a timely manner. Replying to phone calls may take more time.
2. I will try my best to resolve any issues.
3. I will return feedback and grade on assignments and exams within one week of the due date.

Your responsibilities:

1. You will stay active in classroom discussions and activities. Let me know if you find any discrepancies in the syllabus, course material, or activity due dates, as soon as possible.
2. You will monitor the deadlines for projects and exams and ask questions.
3. You will do your best in class and will not hesitate to ask for help.
4. You will review my feedback on your assignments and exams and let me know of any questions or concerns as soon as possible.

Withdrawal Policy - Instructors do not have the option of withdrawing students. For official withdrawal dates and other IMPORTANT college dates, look at the online schedule at the [CSN Calendar](#) and locate the calendar for the current semester.

You are strongly encouraged to discuss your decisions with an academic counselor, academic adviser or success coach AND Student Financial Services, because these decisions may affect your financial aid and Satisfactory Academic Progress. Students receiving financial aid may find their awards reduced.

If you wish to receive a W in lieu of a grade, you MUST withdraw yourself officially from the class. Once you have withdrawn (dropped), you must discontinue attending class. Alternatively, you may wish to change from Credit to Audit and continue to attend the class.

Change to Audit – I will provide the form in our Canvas course shell. Print the form and fill it out, check the boxes, sign and date. Submit the completed form in person at the Registrar’s Office. To avoid visiting the registrar’s office in person, you may scan or photograph the signed form and send it, using your CSN student email, along with a clear color copy of your state ID to MyCSN.Updates@csn.edu

The following dates are for 16-week sessions:

January 23 - Last day for 100% refund

January 30 - Last day for 50% refund

January 30 - Last Day to Drop a Class WITHOUT a Grade of W

February 20 – President’s Day – school is closed

March 13 – March 19 – Spring Break – No class activities

March 24 - Last Day to Officially Change from Credit to Audit

March 24 - Last Day to Drop a Class WITH a Grade of W

May 17 - Grades are Due from Instructors

CLASS POLICIES - All exams will be taken online administered through the Canvas system. Due to the Covid-19 issues, until we are back to normal operating schedule, you will take your exam from anywhere with access to Internet.

All course material is available online in Canvas. While the design of this course allows flexibility in your scheduling, please realize that the deadlines are just as strict as any other course. You should check the calendar and discussion postings daily and allocate your time accordingly to complete the readings and to be prepared for the exams. Due dates will be strictly adhered to. You will use the mail and discussion features of Canvas to contact me or ask questions.

A note on the assignment release schedule - To stay on task, I release chapter material and assignments on a timely basis. Exams can only be taken during the scheduled period. If you like to get material earlier than the rest of the class, send me an e-mail message and I will give you access to the material. The links to assignments and exams will disappear after their respective due dates. Some students have complained that some links disappear from time to time. This is most likely due to system issues or incompatibility with your web browser. Please send an e-mail message informing me about any links that have disappeared from your view.

Online section offer flexibility where you need to manage your time to achieve success. I will assign programming projects that will be graded, and you will have to take exams by specified due dates. **It is extremely simple to ignore due dates and fall behind which I hope we can seriously avoid!**

Hybrid section (when offered) – Using the hybrid format, you physically attend class once a week for 80 minutes and are expected to spend another 80 minutes online.

Web-Remote – Using this format, class meets virtually during the scheduled time via a web conference for live lectures.

A rule of thumb for a 3-credit class is that you attend class about 3 hours a week and study a minimum of 6 hours a week outside of the classroom. IT work can be time-consuming.

This is a **single person class**; meaning that you must turn in **your own work**. You are not allowed to collaborate or consult with anyone else while working on an exam. You are not allowed to collaborate on completing assignments. You should not be looking at each other’s code for assignments. You can freely discuss items in the general sense. Cheating in any form will not be tolerated.

Internet Access - Internet access is your responsibility. This class can be accessed from any computer with Internet access anywhere in the world. Therefore, excuses such as “My computer is not working” or “My provider was down” are not acceptable. If you find yourself in a real jam, you may drive to any CSN site and use one of the computers in the CSN open computer labs. Of

course, if there is a computer problem originating from CSN, then I will take corrective action. But in all other instances, it is your responsibility to ensure your own Internet access.

Software Lab - The Software lab will be virtual and be conducted via Canvas and Discord. It will be available starting on January 17, 2023. Many CIT department courses have embedded tutors. For these courses, your instructor will let you know about the tutoring services. The Centers for Academic Success (CAS) may also provide one-to-one tutoring. For more information, contact CAS by visiting [CAS web site](#).

Networking Lab - The **networking lab** will be open by appointment only. For location/date/time information, please visit the [CIT Information Web site](#). Click on Networking and Software Lab Hours

Academic Advising

Academic Advisors help students assess academic strengths and limitations, learn academic success strategies, explore careers, declare a major, navigate the educational system, access campus and community resources, and connect to campus life. Contact Information: Charleston Campus: Building D – Student Services Area : 702–651–5670, North Las Vegas Campus: Student Services Area : 702–651–4049, Henderson Campus: Building B – Room 120 : 702–651–3165. For more information visit [Academic Advising](#)

Centers for Academic Success (CAS) - Centers for Academic Success (CAS) provides quality DROP-IN academic assistance to all students enrolled in for-credit courses at CSN. Tutors are available for most general education courses and some historically challenging courses. Academic learning support includes assistance with learning strategies, Canvas, Smarthinking online tutoring, Microsoft Office, reading, writing, oral presentations, math, and science. CAS tutors also provide support to study groups and assistance for placement test preparation. CAS is open Monday through Sunday to be more accessible to all students. Hours for all locations are Monday – Thursday 9:00 am to 6:00 pm and Friday – Sunday 11:00 am to 4:00 pm. You may visit the [CAS web site](#) for more details about online and in-person services. You may also contact us at one of our offices: Charleston Centers (651- 5732), North Las Vegas Learning Commons (651-4232), Henderson Learning Commons (651- 3125).

Canvas Computer Instructions & Technology Help Desk

The Canvas Student Quick start Guide be found at [Canvas web site](#). The entire Student Guide may be found on [web site](#). Telephone Support for Distance Education students having problems logging into a course, using course web site tools, or other technical problems can be found by contacting the CSN Technology Help Desk locally at 702–651–4357, or via 1-800–630–7563 toll-free, 24 hours/day, 7 days/week.

Objectionable materials - Instructors have the responsibility to set and maintain standards of classroom behavior appropriate to the discipline and method of instruction. No objectionable materials or language will be used during this class. This includes all possible modes of the class: online and in person. The instructor will make the final determination regarding any objectionable materials or language. Students may not engage in activity the instructor deems

disruptive or counterproductive to the goals of the class. Instructors have the right to remove offending students from class.

Recording Class - Recordings of the class is not allowed without the explicit permission of the instructor.

Early Alert Program - Early Alert Referral Program (MyCoyotePLAN) – A referral program to connect students with college resources when assistance is needed to achieve success. Referrals may be initiated by faculty and staff as well by students through MyCoyotePLAN. After a referral is submitted, students will receive an email notification and will be contacted by the department to which they were referred to offer assistance.

TRIO Student Support Services - One stop shop for first-generation college, financial aid-eligible and disabled students offering tutoring, academic advising, career exploration, college-transfer assistance, and development of college success strategies. Contact information: North Las Vegas Campus: Building E Room 109 : 702–651–4441 or visit the [TRIO's web site](#).

Printing @ CSN - Printing in CSN classrooms, computer labs and libraries falls under Print Wise. Print Wise provides each CSN student with a \$10 credit toward printing at the start of each semester, which will provide for up to 200 black and white copies at 5¢ a page, or 40 color copies at 25¢ a page. After that, you may put money into your account online or at the CSN Cashier's Office to purchase additional prints at the same rate. It is **your responsibility** to maintain your printing accounts to cover printing expenses during each semester. More information about the Print Wise system may be found at the [Printwise Information](#).

Disclaimer - This syllabus is subject to change with advance notice. Notices will be posted in the online forum. It is your responsibility to stay informed.

We will have assignments due on a regular basis. The due date for each assignment will be announced in Canvas and all assignments are delivered and submitted through Canvas. You must be diligent in checking due dates for assignments.

Additional NOTES:

Exams can only be taken online during the specified dates.

Midterm Exam - 20%

Final Exam - 20%

Assignments and Graded Discussions - 60%

Here is a formula for how your final grade is calculated:

(The average of homework assignments and Graded Discussions * .6 + Midterm exam * 0.2 + Final Exam * .20)

So, if Joe's average on assignments and graded discussions is 80, he earns 75 points on the midterm exam, 80 points on his final exam, and 100% on graded discussions, what is his total score? What

is his overall course grade?

Answer: $(80 * .6 + 75 * .2 + 80 * .2) = 79$

Letter grade: C+

The CANVAS system's grade book will allow you to track your grade for each item.

A note on skipped sections: It's perfectly fine if you like to review the skipped sections. You just won't be responsible for these topics in your assignments and exams.

The due dates for assignments and exams will be available in Canvas. Announcements will be made at least a week before the start date of exams and at least a week before the due date of assignments. The following information on due dates is subject to change. The official due dates will be available in Canvas.

Course Contract - This syllabus is a course contract for the duration of the semester. By continuing with this course students agree to the terms set forth in this syllabus and will adhere to all rules and policies outlined. Information contained in this syllabus, other than the grading, late assignments, makeup work and attendance policies, may be subject to change without advance notice, as deemed appropriate by the instructor.

A tentative schedule of activities

Special NOTE: Our Canvas course includes links to Resources and Course video recordings. These links are available through the left Navigation bar when you login to Canvas.

Week	Topics	Tentative Assignments & Exams due dates – SUBJECT to CHANGE
1 1/17 – 1/22	Syllabus and Introduction Overview of the Canvas Learning system Installing Python, Python IDLE, PyCharm Review - Net Academy course: Python Essentials 1: Basics Module 1 – Basics Module 2 – Data types, variables, input/output operations Module 3 – Decision, Repetition, lists	
2 1/23 – 1/29	Review - Net Academy course: Python Essentials 1: Basics Module 4 – Functions, tuples, dictionaries	Assignment 1 – Syllabus Quiz Due: 1/24 Assignment 2 – Basics: Modules 1, 2, 3 Due: 1/24
3 1/30 – 2/5	Review - Net Academy course: Python Essentials 2: INTERMEDIATE Module 1 – Modules, Packages and PIP	Assignment 3 – Basics: Module 4 Due: 1/31

	Module 2 – Strings, String and List Methods, Exceptions	
4 2/6 – 2/12	Net Academy course: Python Essentials 2: INTERMEDIATE Module 3 – Object-Oriented Programming – sections 3.1 – 3.2.1.16	Assignment 4 – Intermediate: Modules 1&2 Due: 2/7
5 2/13 – 2/19	Net Academy course: Python Essentials 2: INTERMEDIATE Module 3 – Object-Oriented Programming - sections 3.3 – 3.4.1.15 - Continued	Assignment 5 - Intermediate Module 3 Due: 2/14
6 2/20 – 2/26	Net Academy course: Python Essentials 2: INTERMEDIATE Module 3 – Object-Oriented Programming – Inheritance and more exceptions - sections 3.5 – 3.6.1.10 - Continued	Assignment 6 - Intermediate Module 3 Due: 2/21
7 2/27 – 3/5	MIDTERM EXAM - Taken one time between 3/2 – 3/7 (Special Sunday due date before the spring break recess)	Assignment 7 - Intermediate Module 3 Due: 2/28 Midterm EXAM – covers all modules covered up to and including week 6
8 3/6 – 3/12	Net Academy course: Python Essentials 2: INTERMEDIATE Module 4 – Miscellaneous - Generators, iterators and closures, Library Modules - sections 4.1 - 4.1.1.8	
9 3/13 – 3/19	SPRING BREAK – no class activities	
10 3/20 – 3/26	Net Academy course: Python Essentials 2: INTERMEDIATE Module 4 – Miscellaneous - Generators, iterators and closures, Library Modules – Continued – sections 4.1.1.9 – 4.1.1.15	Assignment 8 - Intermediate Module 4 – Miscellaneous - Generators Due: 3/21
11 3/27 – 4/2	Lean Python book – Chapter 11 – Databases --- maybe a video on databases – installing and using sqlite Video - https://video-alexanderstreet-com.ezproxy.library.csn.edu/watch/introduction-to-sqlite-databases-for-python-programming	Assignment 9 - Intermediate Module 4 – Miscellaneous - Lambdas Due: 3/28
12 4/3 – 4/9	Lean Python book – Chapter 11 – Databases – Continued - maybe a video on databases on using sqlite	Assignment 10 - Database Due: 4/4
13 4/10 – 4/16	Using Anaconda and Jupyter Notebook – A brief introduction to data science – installation and example use	Assignment 11 - Database Due: 4/11

14 4/17 – 4/23	Web development using Django – Installation and setup	Assignment 12 – Data Science Due: 4/18
15 4/24 – 4/30	Web development using Django – Installation and setup – Basic applications	Assignment 13 – Web development Due: 4/25
16 5/1 – 5/7	REVIEW	Assignment 14 – Web development Due: 5/2
17 5/8 – 5/14	Final Exam – Comprehensive - Taken one time between 5/8 – 5/14	Final Exam Comprehensive exam covering all chapters concentrating on material covered after Midterm Exam

Make sure to see the syllabus addendum file provided in Canvas for additional information on integrity rules, code documentation, and grading rubric.