Northern Essex Community College

Computer and Information Sciences (CIS)

Programming for IT – CIS 153

Instructor: Michael Penta

Email: [mpenta@necc.mass.edu](mailto:mpenta@necc.mass.edu)

Phone: (978) 556-3892

Office Hours and Location

* Monday/Wednesday 12:15pm – 1:15pm, Haverhill STEM center TC219
* Tuesday 9:30am – 10:30am, Zoom, <https://necc-mass-edu.zoom.us/my/mpenta>
* or by appointment.

# General Course Description

This course's focus is on computer programming and scripting for Information Technology. Students will learn about data types, control flow and Graphical User Interface driven applications. This course will be a diverse scripting course covering a wide range of subjects for an Information Technology professional. This course will also include some study of standard libraries and best practices for topics such as version control, and recommended styles and idioms.

***4 Credit Hours*** *- 3 Lecture hours, 2 Lab hours*

**Prerequisites:**

CIS140 Introduction to Computer Science Minimum Grade of: C

**Attributes:** Computer Science Elective, Free Elective

# Course Learning Outcomes

Upon successful completion of this course the student will:

* Be able to read, write and test Python scripts at a shell prompt
* Use Python types and expressions
* Use Python statements (such as conditionals)
* Write and call Python functions
* Write simple Python classes and access methods
* Use and understand a package manager
* Use Python 3 for some simple scripting

# Course Material

## Required Material

* All materials are freely provided within the course
  + Python for Everybody by Dr. Charles R. Severance - <https://www.py4e.com/book>

# Course Requirements and Teaching Procedures

## Blackboard

Blackboard is an integral part of the course. It is essential that you log into the Blackboard site AT least twice a week. Class content and assignment submission will all be handled through the blackboard site. Help with Blackboard is available in the library and at the tutoring center.

## Assignments

Keeping up with the course work is important as many concepts build on top of one another. This course will have weekly problem sets. There are periodic programming projects and a large final project. Problem sets are graded for participation, not correctness. Problem set can be worked collaboratively. I can make a video to go over any problem in a problem set. They are intended to help you learn the concepts and practice solving problems. Projects are individual work and cannot be collaborated on. All assignments are due by the date posted in Blackboard, unless otherwise specified.

## Late work

All assignments have a due date on Blackboard. Assignments submission remain open for 5 calendar days from the due date. After 5 days the assignment will close for submission. Work submitted in the 5-day late period will receive a 10% grade reduction. No other late work will be accepted without prior approval.

## Workload

Keeping up with the workload is essential to success in the course. The workload for any course can be roughly estimated at 4 hours of out-of-class work for every credit hour (a 4 credits course would need around 16 hours). This does not include readings or lectures. Planning and writing programs will take time and practice – allocate the time if you want to be successful.

# Grading

## Grade Breakdown

Problem Sets and other assignments 25%

Final Project 40%

Mini Projects 35%

## NECC Grading System

|  |  |  |
| --- | --- | --- |
| Grade | Quality Points | Numeric Range |
| A | 4.00 | 93-100 |
| A- | 3.70 | 90-92 |
| B+ | 3.30 | 87-89 |
| B | 3.00 | 83-86 |
| B- | 2.70 | 80-82 |
| C+ | 2.30 | 77-79 |
| C | 2.00 | 73-76 |
| C- | 1.70 | 70-72 |
| D+ | 1.30 | 67-69 |
| D | 1.00 | 60-66 |
| F | 0.00 | 59 or less |

# Communication

You can always reach me by my college email. My email is [mpenta@necc.mass.edu](mailto:mpenta@necc.mass.edu).

I typically respond within 24 hours but allow for up to 48 hours for responses, especially over a weekend. I do not use Blackboard mail, please do use that to reach me.

When you send an email, I would appreciate if you included the following (it makes it easier for me to help you):

* Your name
* Your class (either course number or title, day, and time)
* A relevant subject

# Statement on Plagiarism and Cheating

The Computer and Information Science department at Northern Essex Community College is committed to providing a fair, honest, and equitable learning environment for all students. To maintain this environment, we have established a policy on academic dishonesty and plagiarism.

Plagiarism is the act of presenting someone else's work or ideas as one's own without proper attribution. This includes using another person's words, ideas, or data without citing the source, as well as submitting work that has been previously submitted by another person or purchased from an external source.

Academic dishonesty is any action that undermines the integrity of the academic process. This includes, but is not limited to, plagiarism, cheating, and fabrication of data or results.

In accordance with this policy, all students must submit original work that is entirely their own. Submitting work that has been generated by a third party, including artificial intelligence, is strictly prohibited. All information sources not provided by the instructor must be cited. Faculty have the right to withhold a grade and require a meeting with a student to explain their work if academic dishonesty is suspected. Any violation of this policy will be dealt with accordingly. Consequences may include a failing grade on the assignment, a failing grade in the course, and/or being reported to the college for disciplinary action.

# Community Resources

The Community Resources Office is here to support and connect students with on-campus and community resources. Our staff works with students facing a variety of life challenges, including but not limited to housing, childcare, food and financial challenges. The Community Resources Office oversees the on-campus food and clothing assistance programs for students on both the Haverhill and Lawrence campuses. More information can be found on our webpage: <https://www.necc.mass.edu/community-resources> or by calling 978-556-3471.

# Mental Health and Social Services

The Counseling Center at NECC supports the emotional well-being of the student body and is committed to a respectful understanding and honoring of the social, emotional, and cultural backgrounds represented by each individual student. The center provides time-limited individual counseling, crisis intervention, and prevention-oriented outreach to students at no additional charge. More information can be found on our webpage: [https://www.NECC.MASS.EDU/counseling](https://www.necc.mass.edu/counseling) or by calling 978-556-3730.

In a crisis situation, or after hours call 911. The National Suicide Prevention hotline also offers a 24-hour hotline at [800-273-8255](tel:(800)%20273-8255).

For social service related issues, housing, food insecurity or childcare you can find information at <https://www.necc.mass.edu/social-services>

For immediate referrals, United Way runs a 24-hour, multilingual referral line at 2-1-1 or 1-877-211-6277.

# Accessibility Resources & Services

“Northern Essex Community College is committed to providing equal access to students with documented disabilities. To ensure equal access to this class (and your program) please contact the Center for Accessibility Resources & Services or Deaf and Hard of Hearing Services (DHHS) to engage in a confidential discussion about accommodations for the classroom and clinical/practicum settings.

**Center for Accessibility Resources & Services (formerly Learning Accommodations Center):** Serving students with documented disabilities, such as learning disabilities, attention deficit disorders, autism spectrum disorders, brain injuries, chronic illness, low vision/blind, physical disabilities, psychiatric disabilities and seizure disorders.

**Deaf and Hard of Hearing Services:** Serving students who are Deaf or Hard of Hearing.

Accommodations are not provided retroactively. Students are encouraged to register with the Center for Accessibility Resources & Services at the start of their program.

**The Center for Accessibility Resources & Services is scheduling appointments Mondays through Fridays. Communications/meetings can be flexible based on student’s needs and may consist of the following options: Zoom, Phone, In-Person or Email.**

**Following CDC guidelines, all individuals should always wear masks, whether vaccinated or not vaccinated, while on campus to mitigate their risk of catching and spreading COVID-19.**

To get started students may contact the Center for Accessibility Resources & Services as outlined below:

* **Call Center for Accessibility Resources & Services main number 978-556-3654 or email** [centerforaccess@necc.mass.edu](mailto:centerforaccess@necc.mass.edu)**.**
* **Deaf and Hard of Hearing Services call 978-241-7045 (VP/Voice) or email or email** [deafservices@necc.mass.edu](mailto:deafservices@necc.mass.edu)**.**
* **To request an Interpreter or communication access email:** [interpret@necc.mass.edu](mailto:interpret@necc.mass.edu)
* **Individual staff members can be contacted via email**

# Student Ambassadors

The faculty and staff at NECC want you to be successful in your coursework this semester. We are piloting a Student Ambassador program, which is designed to help support you in any challenges you may face with online learning. Student Ambassadors might reach out to you periodically throughout the semester if you stop logging in to Blackboard. If you are looking for advice from a peer, wondering which services you need at NECC, or need help with technical issues, you can also contact our Student Ambassadors via email at [studentambassadors@necc.mass.edu](mailto:studentambassadors@necc.mass.edu).

# Navigate

College can be tough. Navigate Student makes it easier by letting you know how and when to get important things done. The NECC Navigate app helps you make decisions, complete important tasks, and explore campus.

With Navigate Student you can...

1. See upcoming to-dos and events so you never miss important deadlines

2. Get connected to help when you need it

3. Explore major and career options that match your interests

4. Build your academic plan and pick classes each semester

5. Get step-by-step guidance on the complicated stuff like paying for college and selecting courses

6. Sync your class schedule and other important events directly to your phone

To access Navigate, you can download the app or access via a web browser. To access the website, go to [https://necc.navigate.eab.com](https://necc.navigate.eab.com/). To download the Navigate App, go to the GooglePlay store or the App Store and search “Navigate”.

Expected Course Schedule

* Subject to change
* Readings from <https://www.py4e.com/book>
* See Blackboard for assignment requirements and submission details
* Problem sets are done using Grader Than – see Blackboard for more

|  |  |  |  |
| --- | --- | --- | --- |
| Week Start | Readings | Due | Notes |
| Jan 18 | Syllabus, Blackboard, Introduction material, Getting Started,  Chapter 1 |  |  |
| Jan 23 | variables, IO -  chapter 2 | Set up your python programming environment  Problem Set 0 |  |
| Jan 30 | Conditional Expressions  Chapter 3 | Problem Set 1 |  |
| Feb 6 | Functions  Chapter 4 | Problem Set 2 |  |
| Feb 13 | Looping  Chapter 5 | Problem Set 3  Mini-Project 1 |  |
| Feb 20 | Strings  Chapter 6 | Problem Set 4 |  |
| Feb 27 | Files  Chapter 7 | Problem Set 5 |  |
| Mar 6 | Lists Chapter 8 | Problem Set 6  Mini-Project 2 |  |
| Mar 13 | Spring Break |  | Spring Break |
| Mar 20 | Dictionaries and Tuples  Chapter 9 | Problem set 7 |  |
| Mar 27 | Regular Expressions  Chapter 10 | Problem set 8 |  |
| Apr 3 | Networked Programs  Chapter 11 | Problem set 9  Mini-Project 3 |  |
| Apr 10 | Using Web Services - Chapter 12  Using Git | Final Project – Planning |  |
| Apr 17 | Final Project Work Week |  |  |
| Apr 24 | Final Project Work Week | Final Project -Check-in | Required remote meeting |
| May 1 | Final Exam Week | Final Project due |  |

# Distance Education Course Interaction Plan

Form DE-2

This form is to be completed by the faculty of record. Students enrolled in this distance education course shall receive a copy of this completed form

|  |  |
| --- | --- |
| Course Title: Programming for IT | Faculty: Michael Penta |
| Telephone Number: (978) 556-3892 | * Office Hours (if any): * TBA * or by appointment. |
| Mailing and/or Email Address: mpenta@necc.mass.edu |  |
| Asynchronous Course  Yes  Asynchronous: This form of distance education is characterized by an emphasis on “learning on demand” or “as needed communication” between students and faculty from multiple locations at times convenient to participants. | Synchronous Course  No  Synchronous: This form of distance education entails the use of live, two-way communication among and/or between students and faculty in a scheduled or “fixed” point(s) of time(s), much like classroom-based instruction. |

This course may include, but not be restricted to, the following interactions. (*Type Yes or No next the items that apply.)*

Reading, watching videos, complete programming and written assignments.

One virtual meeting for final project code check in is required.

|  |
| --- |
| 1. in person meetings NO  2. telephone interactions NO  3. electronic interactions (email, internet…) YES |
| If yes, dates, times, places are to be specified:  To be arranged by the student and held before the last day of classes or a date specified in the assignment |
| Students are required to engage in the following interaction(s) for successful completion of this course:  Weekly Quizzes/problem sets  Periodic Projects  Final Project |