COURSE NUMBER: CSCI120	**CREDITS:** 3
COURSE TITLE: INTRODUCTION TO COMPUTER SCIENCE AND PROGRAMMING I	**PREREQUISITES:** Math 12, Math 100 or equivalent. Students who have obtained credit for CSCI 101, 102, 103 or 110 may not take this course for further credit.

Weekly Hours: 3	**Lecture:** 1.5	**Lab:** 1.5	**Total Hours:** 39	**Total Weeks:** 13

COURSE DESCRIPTION:

This course is an elementary introduction to computers, computer science and computer programming. Students will study the history of computers and computing. Students will learn the fundamental concepts and terminology of computer science, and acquire elementary programming skills in the Python 3 programming language. No prior programming background is required.

DELIVERY METHODS:

Course delivery is either "In Person" or "Online". Regardless of delivery method, all quizzes and exams take place in the college.

TEXTBOOK:

Free online book: http://www.annedawson.net/thinkpython.pdf

LEARNING OUTCOMES:

By successful completion of this course, the student should be able to:

Cite some historical facts of computer science.
Describe fundamental concepts behind computer science.
Analyze problem specifications.
Define simple algorithms using pseudocode.
Construct Python programs from algorithms.
Describe and apply techniques to debug and test programs.
Define functions.
Use objects that are built-in or defined in modules.
Trace the execution of Python programs.
Use elementary data structures such as strings and lists.
Implement fundamental algorithms such as the linear and binary search.
Analyze the running time of simple iterative algorithms.
Describe and apply techniques to create object oriented programs.
Document a project.

COURSE CONTENT:

Week	Topic	Chapter
Week 1	Introduction to Computer Science and Python Programming, Data types	1, 2
Week 2	Processing, Input, Algorithms	1, 2
Week 3	Selection, Repetition	5.1-5.7
Week 4	Repetition and String Formatting	7.1-7.4, 14.3
Week 5	Functions	3, 6.1-6.4
Week 6	Functions, Midterm Exam	3, 6.1-6.4
Week 7	Lists	10
Week 8	Strings and Files, Quiz 2	8,14.1-14.5
Week 9	Searching	Online Resources
Week 10	Object Oriented Programming	Online Resources
Week 11	Object Oriented Programming, Quiz 3	Online Resources
Week 12	Team Project	Online Resources
Week 13	Team Project	Online Resources

EVALUATION:

Lab Assignments / Participation	15%
Midterm exam	30%
Final exam	35%
Quizzes	20%
Total	100%

Quizzes and Exams – Questions types may include: multiple choice, short answer, interpreting code (predict the output), writing code, as well as other kinds of questions. Questions are based on the course resources and notes, example programs and lab activities.

Cheating: Students cheating on tests and exams will receive a “F” grade in this course.

If a student misses an exam, a mark of zero will be assigned unless there are extenuating circumstances. In such cases, the proportion of grade assigned to the missed exam will be added to the proportion assigned to the final exam. The final exam will be held during exam week. NO consideration will be given to any student wishing to write the exam at any other time than that assigned.

It is a student’s responsibility to know and follow the school’s policies regarding cheating on exams.

The school’s policy regarding electronic devices is that any student who has a cell phone or other unauthorized electronic device (ie. ipad, laptop, playbook, etc.) on their person or around their desk during an exam will be guilty of cheating and will a grade of “F” for the course.