**  
Computer Science  
Beginning Programming: Python - CSCI 110 – 001 - 43012  
Spring 2016**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Instructor and Communication Information**

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| Instructor | Dr. Ram B. Basnet |
| Office | WS 119B |
| Phone | 970-248-1682 |
| Website/Email | <http://org.coloradomesa.edu/~rbasnet> rbasnet@coloradomesa.edu |
| Office Hours | MW 2-2:50 PM, TH 1-1:50 PM, F 2-2:50 PM @ Maverick Innovation Center |
| Communications Policy | D2L or email. Communication will be typically answered within 48 hours. |
| Assignment Grading and Feedback | The instructor will attempt to return grades and feedback on your assignments within 5 business days after the due date.  If it is determined that grading will take longer than 5 business days, the instructor will post an announcement in D2L. Individual feedback for all assignments will be given and available in D2L.  Questions regarding assignments may be made via email, and the instructor will respond within 48 hours. |

**Course Information**

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| Course Title | CSCI 110 Beginning Programming: Python, Section 1 |
| Class Time | MWF 11-11:50 AM |
| Classroom | WS 205 |
| Prerequisites | Familiarity with a computer system |
| General Education Requirements | CSCI 110 is not required for AS and BS in Computer Science |
| Credit Hours | 3+1 - An undergraduate student should expect to spend on this course a minimum of two hours outside the classroom for every hour in the classroom. The outside hours may vary depending on the number credit hours or type of course. More details are available from the faculty member or department office and in CMU’s Curriculum Policies and Procedures Manual. |

**Course Catalog Description**This course will provide a gentle introduction to programming using Python for students who have no prior background and knowledge in programming. The objective of this course is to provide students with a basic knowledge of application development and problem solving using Python programming language. The course will especially focus on planning and organizing programs, as well as the grammar of Python programming language.

**Required Text and Supplies  
*Think Python - How to Think Like a Computer Scientist*** *by Allen Downey*

**Lesson/Instructional Materials**Textbook, Powerpoint slides, PDF, website resources, etc. will be provided when necessary.

**Program Learning Outcomes**CSCI 110 helps students to meet these Student Learning Objectives for the AS in Computer Science and the BS in Computer Science

Associate Level Students will be able to:

* Write programs in a general purpose programming language
* Develop a software solution to a problem given a technical specification

Baccalaureate Level Students will be able to:

* Write programs in multiple programming languages, and be able to translate concepts between languages.
* Develop the technical specification, and develop, design and test a software solution for a given problem.
* Analyze and measure competing hardware and software components and defend a choice for a given situation.

**Student Learning Outcomes**By the end of the semester, the student will be able to:

* Understand and code Python programs
* Write algorithms and test them using basic data structures
* Read data from text files and write data to text files
* Understand and code object oriented programming

**Methods of Evaluation/Grading Policy**Assignments and projects will be graded on a combination of objective and subjective basis. Students that do more than is required on an assignment, and demonstrate the knowledge of programming and problem solving skills will achieve higher grades.

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| **Grade Items** | **Percent of Final Grade** |
| Attendance and Class Participation | 10% |
| Homework/Assignments | 70% |
| Final Exam/Project | 20% |

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| **GRADING** | **SCALE** |
| A | 90 -100% |
| B | 80 - 89% |
| C | 70 -79% |
| D | 60 - 69% |
| F | Under 60% |

**Assignments**Several homework will be assigned throughout the semester. Assignments will be turned in using D2L’s dropbox.

**Policy on Late work, missed quizzes and tests**

No late programs will be accepted. If your program has a bug, turn in the completed portion of the program for partial credit. No makeup tests or quizzes will be given in this class. If you miss a quiz for some reason, you must take that quiz before it is handed back to the class or it is too late!

**Supplemental Help**If you wish to discuss academic accommodations, please contact me as soon as possible. Specific information about Educational Access Services and the Tutorial Learning Center is included under General Student Services in this Syllabus.

**Attendance Policy**Attendance will be taken. Missing the first 3 classes, or more than 10 classes may result in an instructional withdrawal from the course.

**Course Correspondence**  
All communication in this course will be made via your CMU email account. Please include the title of the course and section number in the subject line (example: CSCI 110-001). Check your email regularly throughout the semester. I will respond within 48 hours.

**Plagiarism and Academic Integrity**It is illegal to plagiarize web content, or to use content not permitted by copyright policy. It is dishonest to claim other's work as your own or use tools outside the scope of the projects to build your website. You may be given a failing grade on a project or the course overall for academic dishonesty. For more info see university policy: <http://www.coloradomesa.edu/academics/policies.html>

**Netiquette**“Netiquette” refers to the etiquette by which you should abide when using online services for your classes and campus communications. This includes email, social media, online chat, blogs, online discussions or message boards, instant messages, etc. Although you are participating in course activities and using course materials online, the [CMU Student Code of Conduct](http://www.coloradomesa.edu/studentservices/conduct.html) still applies. Online participants are expected to behave in a respectful manner that is supportive to other learners, participants, and faculty.

Online behavior should foster an environment that is productive and thoughtful. Netiquette provides guidelines for facilitating this positive atmosphere. Some basic principles of netiquette include:

* **Be respectful.** Remember that you are communicating with actual people. Be courteous and show respect, even if you have differences of opinion. Remember to treat others as you’d like to be treated. Good manners apply online as well as in the traditional classroom.
* **Think before you post.** Follow posting directions and examples. Be aware of who may be able to view your posting, and how your post may be interpreted. Try to maintain a fair and objective tone.
* **Stay on topic.** Make sure your communication is related to the subject and does not wander off-topic. Ask questions that are appropriate and relevant to the topic. Keep academic discussions free of “chit-chat”.
* **Write clearly.** Even though the online environment may seem more informal than your face-to-face class, you are still in an academic course and mature communication is expected. Correct spelling and grammar are required. Proper sentence structure and punctuation should be used. Avoid abbreviations and “text speak.”
* **Use appropriate language and style.** Profanity or offensive wording is not acceptable. ALL CAPS and repeated punctuation (???? or !!!!) is considered rude and should be avoided. While it is okay to have robust discussions and differences of opinion, avoid inflammatory wording ‘flaming’ that might start arguments. To disagree, use language that encourages intelligent discourse and discussion. Ignore statements by others that appear inflammatory.
* **Be considerate of others.** Do not make derogatory, condescending, or harassing remarks. Communication should be well-intentioned and well-articulated. It should foster a positive learning environment. Be aware of how sarcasm may be misinterpreted by your readers. Bullying, threatening, or abusive language will not be tolerated.
* **Allow for misunderstandings.** Keep in mind that writing can often convey the incorrect tone or intention. Make allowances for unintended rudeness or misunderstanding.
* **Cite your sources.** If you post work that is not your own or contains work that is not your own, be sure to reference your sources.
* **When in doubt, do not send or post.**

**Technology & Technology Skill Requirements**You will need basic computer skills and should be comfortable using a word processing program, browsing for files, and copying and pasting between programs. You will need a computer that connects to the Internet. Your username and password are required for access. If you do not own a computer or if your computer malfunctions during the term, you will be expected to identify a computer to use. Technology issues are not an excuse for missed or late work.

Colorado Mesa University strongly prefers students use the following technology minimums: DSL/Cable modem and high-speed Internet connection, Microsoft Windows XP or later, Microsoft Office 2003 or later, and Java Runtime Environment 7.

Visual Studio 2013/2015 – Professional or community edition.

**Technical Help**If you experience a technical problem, call the Help Desk at (970) 249-2111 to receive technical support in the following areas:

* Usernames and passwords
* Desire2Learn
* MavZone
* Microsoft Office products
* Connecting to the wireless network
* Desktop computer hardware installation and troubleshooting
* Desktop software installation and troubleshooting
* Network file storage

For more information, visit the CMU Help Desk website at: <http://coloradomesa.edu/it/helpdesk.html>

**Withdrawal Statement**Regular class attendance is expected. CMU is required by law to verify the enrollment of students who participate in Federal Title IV student aid programs and/or who receive educational benefits through other funding sources. CMU is responsible for identifying students who have not attended or logged into a class for which they are registered. At the conclusion of the first week of a semester, instructors will report any registered students who have "Never Attended" a class so that those reported students will be administratively withdrawn from that class. However, it is the student's responsibility to withdraw, using the appropriate CMU form, from any class which she/he is no longer attending or risk receiving a failing grade in that class. Student's wishing to withdraw must complete and submit the appropriate CMU form by the established withdrawal deadline.

**General Student Services**

* **Educational Access Services**: In coordination with Educational Access Services, reasonable accommodations will be provided for qualified students with disabilities. Students must register with the EAS office to receive assistance. Please contact your instructor the first week of class. For more information or to make arrangements, contact the Coordinator of Educational Access Services directly by phone at (970) 248-1801, or in person in Houston Hall, Suite 108, or visit the EAS website at <http://coloradomesa.edu/eas/index.html>
* The **Tutorial Learning Center** (TLC) is a **FREE** academic service for all Colorado Mesa University students. Tutors are available on a walk-in basis for many courses. Do you have a quick question? Do you need homework clarification or feedback on a paper? Are you reviewing for a test? Help is available at the TLC!   
  At the main campus, come to Houston Hall 113 to meet with one of our friendly peer tutors. We are open on Monday through Thursday from 8am-6pm and Fridays from 8am-5pm. We are also open Sundays from 1pm-6pm! Tutoring at branch campuses and distance tutoring is also available. Check out the website for schedules and locations at [www.coloradomesa.edu/tutoring](http://www.coloradomesa.edu/tutoring) or call (970) 248-1392 with any questions.
* **Research Assistance at the Tomlinson Library:**

CMU’s professional reference librarians support students with their research (finding print and electronic resources, evaluating sources, and citing them) – so don’t be shy! 24/7 chat support from librarians is available via the library homepage and/or you can email your questions to [libref@coloradomesa.edu](mailto:libref@coloradomesa.edu).

The Reference Desk is on the first floor of Tomlinson Library. Reference Desk hours: Monday-Thursday 8am-9pm; Friday 8am-5pm; Saturday 10am-5pm; and Sunday 1pm-9pm. You can also reach a librarian by calling 970.248.1860.

* **Student Services**: The Office of Student Services works to support CMU students in all aspects of college life, by offering a vast array of services, resources and programs that make each student's time at Colorado Mesa University as exciting and successful as possible. Student Services works collaboratively with faculty, students, and staff to create a campus community that fosters the growth of students as strong individuals and productive citizens. To learn more, go to <http://www.coloradomesa.edu/studentservices>.
* **Financial Aid**: Financial aid staff is dedicated to assisting you in sorting through the various forms of student financial aid. We believe that by helping you take advantage of a variety of available resources, you will find an education at Colorado Mesa University is attainable. Our office is located in the lower level of Lowell Heiny Hall, Room 116. Our phone number is (970)248-1396, or you may contact us via email at [financialaid@coloradomesa.edu](mailto:financialaid@coloradomesa.edu)
* **Advising Center:**  Advisors can assist students with course selection and registration, major exploration, and identifying strategies for academic success. The Advising Center is committed to promoting academic success and in facilitating students to attain their educational goals. We are located in Lowell Heiny Hall, on the lower level, room 127. Our phone number is (970)248-1177, or toll free at 1-800-982-6372 (option #7 or extension 1177). Our FAX number is (970)248-1267. You can also reach us via email at [advising@coloradomesa.edu](mailto:advising@coloradomesa.edu) Appointments are scheduled from 9:00 to 4:00, Monday through Friday. Please call a week or two in advance of your desired appointment date to schedule. Bring your picture ID, as failure to do so may result in a rescheduled appointment.
* **Business and Financial Services Office:**  The Business and Financial Services Office is located in the lower level of Lowell Heiny Hall. Our staff is available to assist you Monday through Friday from 8:00 am to 5:00 pm, MST. Our phone number is (970)248-1567, our FAX number is (970)248-1136, or you may contact us via email at [businessoffice@coloradomesa.edu](mailto:REGISTRAR@coloradomesa.edu)

**Course Schedule**The table below shows the tentative schedule and topics that will be addressed in this course.

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| **Week** | **Chapter** | **Topics** |
| 1 | 1 | Introduction and Goals, Terminology, Entrepreneurial Opportunities, Lab1 |
| 2 | 2 | Data Types, Operators, Variables, Lab2 |
| 3 | 3 | Functions – built-in and user defined, parameters and arguments, flow of execution, etc. Lab3 |
| 4 | 5 | Conditionals and recursion, logical operators, nested ifs, Lab4 |
| 5 | 6 | Fruitful Functions, more recursion, Keyboard input, Lab5 |
| 6 | 7 | Iteration – for, while, Lab6 |
| 7 | 7 | Iteration – tables, functions, Lab7 |
| 8 | 8 | Strings – traversal, comparison, string module, Lab8 |
| **9** | **Spring Break** | **Spring Break** |
| 10 | 10 | Lists - elements, membership, closing, nested lists, operations, Lab9 |
| 11 | 11 | Dictionaries - operations, methods, aliasing, sparse metrics, etc., Lab 10 |
| 12 | 12 | Tuples - assignment, mutability, random numbers, counting, etc., Lab 11 |
| 13 | 14 | Files and Exceptions - text files, directories, pickling, etc., Lab 12 |
| 14 | 15, 16 | Classes, Objects, and Functions, Lab 13 |
| 15 | 17 | Classes and methods, Lab 14 |
| 16 | Review | Review Final Project |
| **17** | **Finals** | **May 11, 2016 10-11:50 AM** |