Scripting Languages

Instructor: Christopher Kane, ckane@cs.stonybrook.edu
Office Hours: Monday/Friday, 3:00 – 5:00 PM, or by appointment
Classes: Monday/Friday, 1:00 – 2:20 PM, Engineering 145

Course Description:
Scripting languages are widely used in the IT industry. Programming with scripting languages, also known as scripting, has several advantages compared to programming with other types of languages in that scripts facilitate rapid program development; can automate high-level jobs or tasks effectively; and can be used to compose various software components, even binaries, into more complex and powerful applications. This course introduces the principles of scripting, covers few selected scripting languages in depth, and illustrates the advanced use of scripting by extensive case studies in application areas such as system administration, Web application development, graphical user interface development, and text processing.

Pre-requisite: CSE 114 or CSE 160 or ISE 208; CSE or ISE major; U3 or U4 standing

Course Objectives
At the completion of this course, students will be able to:

- Read and maintain existing scripting programs in the languages studied
- Effectively utilize and compose common command-line utilities
- Identify and determine if scripting is suitable given a software requirement specification
- Analyze the requirement specification, design, and implement moderately-sized scripting programs

Course Online Resources:

- Course Homepage: https://www.cs.stonybrook.edu/~ckane/cse337/
- Blackboard: https://blackboard.stonybrook.edu

Blackboard will be used for most other course materials such as slides, assignments, grades, etc. These sites must be monitored and read regularly.

- PIAZZA: https://piazza.com/stonybrook/spring2019/cseise337

This term we will be using PIAZZA for class discussion. The system is highly catered to getting you help fast and efficiently from classmates, the TAs, and Professors. All non-personal course-related communication should be posted to the discussion board. If you have questions about assignments, technical problems that need troubleshooting, or other questions that might be of interest to other students, they must be posted to PIAZZA and not emailed to the instructor or TA. If you have any problems or feedback for the developers, email team@piazza.com.
Course Outline:
The following topics will be covered in the lectures:

- Principles of scripting languages
- Basic Python and basic Perl programming
- Regular expressions and text processing
- Application case studies, e.g., in System Administration, Web Applications, graphical user interfaces, etc.

A more detailed schedule of lectures and assignments will be posted to the course homepage.

Course Announcements: Course announcements PIAZZA (they may be cross-posted to Blackboard). You are expected to be aware of announcements.

Textbook: There is no prescribed textbook. The major course materials are from lecture notes, sample programs, assigned readings, and a list of references.

Final Exam: Monday, May 20th, 2019, 2:15 – 5:00 PM

Grade Distribution:
- Assignments (4-5): 50%
- Quizzes (3-4): 20%
- Final Exam: 30%

Course Policies:

Programming Assignments:
- The course will include 4-5 programming assignments, worth 100 points each.
- Students are expected to work independently. Offering and accepting solutions from others is an act of plagiarism, which is a serious offense and all involved parties will be penalized according to the Academic Honesty Policy. Discussion amongst students is encouraged, but when in doubt, direct your questions to the professor, TA, or grader.
- Assignments must be turned in on the day they are due. Students are urged to plan ahead to avoid problems such as congestion or failure of computer facilities at the last minute. If your assignment is incomplete or is not working by the due date, turn in whatever you have.
- Extensions or late assignments will NOT be accepted under any circumstances.
- Note due to limited resources for grading, programs which do not compile or run for testing may not be graded.
- Grading Issues: All issues with grading must be emailed to ckane@cs.stonybrook.edu within 1 week of release of the graded assignment. Any requests/concerns after this date will not be honored. The email must include a detailed explanation of the specific grading issues and reason/correction. We believe students often learn by investigating and
understanding their mistakes. Therefore, it is the responsibility of the student to
determine the issues, not the grader/instructor/TA.

**Quizzes and Exams:**
- Exams are closed book, closed notes.
- **No makeup exams will be given, except for PRIOR excused absences with official
documentation approved by the University.**

**Attendance:**
- Attendance is expected and highly encouraged.
- Students are responsible for all missed work, regardless of the reason for the absence. It
is also the absent student’s responsibility to obtain all missed notes or materials.

**Etiquette:**

**PIAZZA:**
PIAZZA is a forum for additional learning and assistance. It is not the place for cyber-bullying,
memes, grade complaints, concerns/comments/criticisms about the course, or in general,
anything unrelated to the course material and your learning. Improper behavior will result in
the deactivation of PIAZZA and reporting of the individual's behavior to University Office of
Community Standards.

Therefore, students are expected to use the PIAZZA forum for all non-personal course-related
communication. If you have questions about assignments, technical problems that need
troubleshooting, or other questions that might be of interest to other students, they must be
posted to PIAZZA and not emailed to the instructor or TA.

**Email:**

Almost all questions concerning the course should be posted to PIAZZA. The following list
gives exceptions for which students should email me directly:
- If you cannot come to office hours and need to set up an appointment to meet at another
time; in this case you must include your availability for the upcoming week.
- Making arrangements for disability accommodations.
- To discuss private, personal matters that are impacting your coursework, such as
physical or mental illness, death in the family, etc.
- If the instructor asks you to email them something relating to a previous conversation.

When emailing, please use the following guidelines to ensure a timely response:
- Use your official Stony Brook (@stonybrook.edu) email account.
- Use a descriptive subject line that includes “CSE 337”, identifies the item you are
emailing about, and a brief description of the topic of your email.
- E.g., “CSE 337: HW1 Submission error”, “CSE 337: HW2 Blackboard Grade”
- Begin with a proper greeting, “Hello Prof. Kane,”
- Please be direct and concise in explaining the issue.
- End with a proper salutation that includes your full name, netid, and SBU ID number.
**Academic Dishonesty:**

You may discuss the assignments with anyone you like, however each students' assignment (including coding) which they submit must be their own work, and only their own work. Any evidence that source code or solutions have been copied, shared, or transmitted in any way (this includes using source code downloaded from the Internet or written by others in previous semesters!) will be regarded as evidence of academic dishonesty. The College of Engineering and Applied Sciences regards academic dishonesty as a very serious matter, and provides for substantial penalties in such cases, such as receiving an 'F' grade, or expulsion from the University. For more information, obtain a copy of the CEAS guidelines on academic dishonesty from the CEAS office.

All examinations will be closed-notes and closed-book. No electronic devices of any kind will be permitted to be used during exams. All cell phones must be turned off during exams. Any use of electronic devices, textbooks, notes or any other materials will constitute cheating.

Be advised that any evidence of academic dishonesty will be treated with utmost seriousness. Those involved will be prosecuted to the fullest extent permitted by the University and College laws. Each student must pursue his or her academic goals honestly and be personally accountable for all submitted work. Representing another person's work as your own is always wrong. Any suspected instance of academic dishonesty will be reported to the Academic Judiciary. For more comprehensive information on academic integrity, including categories of academic dishonesty, please refer to the academic judiciary website.

**Students with Disabilities:**

If you have a physical, psychological, medical or learning disability that may impact on your ability to carry out assigned course work, I would urge that you contact the staff in the Disability Support Services office (DSS), ECC Building (behind SAC), 632-6748/TDD. DSS will review your concerns and determine, with you, what accommodations are necessary and appropriate. All information and documentation of disability is confidential. Students who require assistance during emergency evacuation are encouraged to discuss their needs with their professors and Disability Support Services. For procedures and information go to their and search Fire Safety and Evacuation and Disabilities.

**Critical Incident Management:**

Stony Brook University expects students to respect the rights, privileges, and property of other people. Faculty are required to report to the Office of University Community Standards any disruptive behavior that interrupts their ability to teach, compromises the safety of the learning environment, or inhibits students' ability to learn. Faculty in the HSC Schools and the School of Medicine are required to follow their school-specific procedures. Further information about most academic matters can be found in the Undergraduate Bulletin, the Undergraduate Class Schedule, and the Faculty-Employee Handbook.