CSE 114: Computer Science I (Section 01)

Stony Brook University, Fall 2017

Course Description

CSE 114 is an introduction to procedural and object-oriented programming methodology. Topics include program structure, conditional and iterative programming, procedures, arrays and records, object classes, encapsulation, information hiding, inheritance, polymorphism, file I/O, and exceptions. Includes required laboratory.

Prerequisite: Passing the math placement exam at level 4, or any equivalent math course.

Advisory Prerequisite: CSE 101 or ISE 108

Course Objectives

Students who successfully complete this course will be able to demonstrate:

- An ability to program in an object-oriented language, using concepts such as object classes, encapsulation, inheritance, and polymorphism
- An ability to use fundamental data structures such as arrays
- An ability to program with sound code structure and use systematic software debugging and testing techniques

Course Information

Lecture Meetings: Monday and Wednesday, 7:00–8:20 PM, in Engineering 143

Lab Meetings: Each lab meets **TWICE** a week, on Monday ***and*** Wednesday. **LABS BEGIN ON SEPTEMBER 11.**

Lab Section	Meeting Time	Location
L01	8:30 AM–9:50 AM	Old Computer Science 2116
L02	10:00 AM–11:20 AM	Old Computer Science 2116
L03	11:30 AM–12:50 PM	Old Computer Science 2116
L04	2:30 PM–3:50 PM	Old Computer Science 2116
L05	4:00 PM–5:20 PM	Old Computer Science 2116
L06	5:30 PM–6:50 PM	Old Computer Science 2116

Textbook and Required Course Materials:

- *Introduction to Java Programming: Brief Version (10th Edition)*, by Y. Daniel Liang (Prentice Hall 2015). Copies of the book are available on 2-hour reserve in Melville Library's North Reading Room.
- Students are also **REQUIRED** to purchase access to Pearson's ***MyProgrammingLab*** service (prepaid access codes are bundled with the Student Value Edition sold through the University bookstore; its ISBN is 9780133813470). MPL registration instructions (including the section number you must use) will be provided in class.

- Students should download and install the Java SE Development Kit 8 from *http://www.oracle.com*. You may also want to download either the Eclipse or Netbeans IDE for use in completing lab and homework assignments. Detailed directions on obtaining these (free) software packages will be provided on Blackboard.

Course Discussion Forum: CSE 114 uses Piazza (*http://piazza.com*) for course-related discussion. The instructor and TAs will monitor this forum regularly to answer questions. More details will be provided in class.

Course Web Site: http://www.cs.stonybrook.edu/~cse114/. All course materials (announcements, slides, homework, labs, grades, and supplementary reading assignments) will be posted on Blackboard.

Important Dates

- 9/4: No class (Labor Day)
- 9/11: Lab meetings begin (see the table above for times and locations)
- 10/16: Midterm 1 (8:45–10:15 PM, location TBA)
- 11/7: Midterm 2 (8:45–10:15 PM, location TBA)
- 11/22–11/23: No class or lab (Thanksgiving Break)
- 12/18: Final Exam (8:00–10:45 AM, location TBA)

Instructor Information

Instructor: Praveen Tripathi, email: praveen@cs.stonybrook.edu

Instructor Office Hours:. Tuesday/ Thursday 2:30 pm to 4:00 pm in New Computer Science Building Room # 202

I am also available at other times by appointment.

Grading Policy

Course grades will be based on a combination of:

- twenty-five programming laboratory assignments (0.5% each, 12.5% total)
- five programming homework assignments (3% each, 15% total)
- one final programming project (6%)
- fourteen MyProgrammingLab problem sets (0.5% each, 7% total)
- twenty in-class quizzes/assignments, of which the lowest two are dropped (0.25% each, 4.5% total)
- two written midterm exams (15% and 20% each, respectively)
- one written final examination (20%)

All grades will be posted on Blackboard. See the course Web page for the letter grade cutoffs. Final grades are **NOT** curved.

The Pass/No Credit (P/NC) option is not available for this course. This policy applies to *all* CSE/ISE undergraduate courses used to satisfy the graduation requirements for the major.

Late Assignment Policy: Each assignment clearly states its due date. In-class quizzes are due at the end of that class period; missed quizzes may **NOT** be made up. Labs are due (via demonstration to one of the lab TAs) at the end of that lab meeting. Late or improperly-submitted assignments will **NOT** be accepted for homework, MyProgrammingLab problem sets, or the final project.

Grade Challenge Policy: The TAs and I will endeavor to post grades as soon as possible after assignments/exams are turned in (normally within 7–10 days). Questions about or challenges to homework, lab, MPL, or midterm exam grading **MUST** be made within **TWO WEEKS** of the grades being posted; after that period, grades are considered final for that assignment.

Exam Policies: All students must bring photo ID to each exam. Students will not be admitted more than 10 minutes late to any exam. Make-up exams will be granted at the instructor's discretion, and **ONLY** for valid medical reasons (a doctor's note is required), for religious reasons, or for documented participation in University-sponsored events. Except for medical excuses, reasonable prior notification (at least 48 hours prior to the exam) to the instructor is **REQUIRED** in order for a make-up opportunity to be considered.

Americans with Disabilities Act

If you have a physical, psychological, medical or learning disability that may impact your course work, please contact Disability Support Services, ECC (Educational Communications Center) Building, Room 128, (631) 632-6748. They will determine with you what accommodations, if any, are necessary and appropriate. All information and documentation is confidential. http://studentaffairs.stonybrook.edu/dss/

Academic Integrity Policy

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. Faculty are required to report any suspected instances of academic dishonesty to the Academic Judiciary. For more comprehensive information on academic integrity, including categories of academic dishonesty please refer to the academic judiciary website at http://www.stonybrook.edu/commcms/academic_integrity/index.html

Students found guilty of academic dishonesty will automatically receive a final grade of 'F' for the course.

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.

Policy on Electronic Devices in Class

Students are encouraged to bring laptops and tablet devices to class *for note-taking purposes only*, especially during the programming lectures. All communication and entertainment devices should be silenced or (preferably) turned off for the duration of the class unless otherwise directed by the instructor. No electronic devices of any sort may be consulted or used during exams; this will be considered an instance of academic dishonesty, and will be treated as such.

Use of Email for Official Communication

Students, faculty, and staff are responsible for making sure they are receiving and checking for official University communications at their primary campus email address (@stonybrook.edu) on a regular basis, or making sure they forward their Stony Brook mail to a personal email account (Google Apps users only).

Tentative Course Calendar

Week	Date	Main Topic(s)	Labs	Notes/Reading	Assignments Due By Friday
1	8/28	Introduction to Java	N/A	Liang Ch. 1	
	8/30	Introduction to Java		Liang Ch. 1	N/A
2	9/4	**NO CLASS (Labor Day)**	N/A	N/A	
	9/6	Elementary Programming		Liang Ch. 2	MPL Chapter 1
3	9/11	Selections	1–2	Liang Ch. 3	
	9/13	Math and Java Strings		Liang Ch. 4	MPL Chapters 2 and 3, Homework 1
4	9/18	Loops	3–4	Liang Ch. 5	
	9/20	Methods		Liang Ch. 6	MPL Chapters 4 and 5
5	9/25	Arrays	5–6	Liang Ch. 7	
	9/27	Multidimensional Arrays		Liang Ch. 8	MPL Chapter 6, Homework 2
6	10/2	Program Design and Debugging	7–8	N/A	
	10/4	Introduction to Objects		Liang Ch. 9	MPL Chapters 7 and 8
7	10/9	Object-Oriented Thinking	9–10	Liang Ch. 10	
	10/11	Object-Oriented Thinking		Liang Ch. 10	MPL Chapter 9, Homework 3
8	10/16	Midterm 1 Review (in class)	11–12	**Exam 1 is Monday, 10/16, at 8:45 PM (location TBA)**	
	10/18	Inheritance		Liang Ch. 11	MPL Chapter 10
9	10/23	Polymorphism	13–14	Liang Ch. 11	
	10/25	Exceptions and Text I/O		Liang Ch. 12	MPL Chapter 11
10	10/30	Abstract Classes	15–16	Liang Ch. 13	
	11/1	Interfaces		Liang Ch. 13	MPL Chapter 12, Homework 4
11	11/6	Midterm 2 Review (in class)	17–18	**Exam 2 is Tuesday, 11/7, at 8:45 PM (location TBA)**	
	11/8	Recursion		Liang Ch. 18	MPL Chapter 13
12	11/13	Recursion, Part 2	19–20	Liang Ch. 18	
	11/15	Recursion, Part 3		Liang Ch. 18	MPL Chapter 18, Homework 5
13	11/20	Introduction to JavaFX	21	Liang Ch. 14	
	11/22	**NO CLASS (Thanksgiving)**		N/A	N/A
14	11/27	Event-Driven Programming	22–23	Liang Ch. 15	
	11/29	More JavaFX Concepts		Liang Ch. 16	N/A
15	12/4	Other topics as appropriate	24–25	N/A	
	12/6	Other topics as appropriate		N/A	Final Programming Project
Finals		**Final Exam (Monday, 12/18, 8:00–10:45 AM, location TBA)**			