Fundamentals of Programming

CSIS 1400

Course Description

Introduction to elementary programming including data types; operators; strings; selections; loops; methods, objects and classes; arrays and array lists; input and output; introduction to API and object oriented thinking and design.

Recommended prereq: CSIS 1030, CSIS 1340, CSIS 1350 or equivalent.
Semester: All

CSIS-1400 is the first of three core CSIS programming courses. In this course you will be introduced to the fundamental concepts of programming in high-level languages, including but not limited to: primitive data types, control structures, methods and classes, enums, arrays, ArrayList, software design, and Java API specification. Emphasis is on developing problem-solving skills through designing, implementing and executing simple computer programs.

This is a bring your own device course, therefore a computer is required for homework and in class activities.

Course Student Learning Outcomes

- Design, write, compile, test, debug and execute simple Java programs.
- Use sequential, selective, and iterative constructs to control program logic.
- Create, define, and invoke properly constructed methods.
- Implement simple but useful classes with appropriate attributes and behaviors.
- Use interpersonal skills in a dynamic group environment to design, implement and demonstrate a simple programming project.

Course Prerequisites

CSIS-1340, CSIS-1030 or equivalent

Communication Plan

Example language:

- I will respond to email within24 hours. I will offer feedback on major assignments within 48 hours. The best way to contact me is via the Canvas Inbox, as I will prioritize this email over other modes of communication.
- In this course I will be posting interactive announcements which will offer specific opportunities for class questions and extra credit every other week.
- Additionally, I will be participating in the discussion forums with you to share my perspective within the discipline and to offer some nuances of interpretation that may not be present in your textbook.
- Lastly, we'll be holding small group Q & A sessions, where we can learn from our peers (and faculty) on some of the more difficult units within the course.

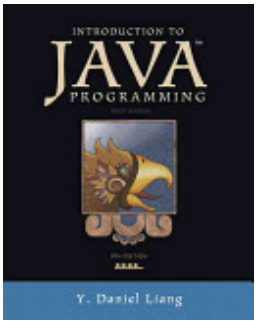
Keys for Success (how to succeed in the course)

To succeed in the CSIS-1400 course, focus on mastering the fundamentals of programming through consistent practice and problem-solving. Begin by thoroughly

understanding basic concepts such as variables, control structures, and data types, as these are the building blocks for more advanced topics. Regularly write and test your code, as hands-on experience is key to reinforcing your learning. Stay engaged by participating in class activities and asking questions to clarify any doubts. Additionally, make use of available resources, such as textbooks, online tutorials, and study groups, to deepen your understanding and prepare for exams. Keeping up with assignments and managing your time effectively will also contribute to your success in the course.

Required Text or Materials

Title: zyBooks
Subtitle: Fundamental of Programming



Title: Introduction to Java Programming
ISBN: 9780133050561
Authors: Y. Daniel Liang
Publisher: Prentice Hall
Publication Date: 2012-03-15

For more information on textbook accessibility, contact Accessibility & Disability Services at ads@slcc.edu.

Brief Description of Assignments/Exams

- Reading Assignments (Prep work) (25%): Weekly Prep work is available on Canvas and they are due by midnight. Prep work cannot be made up because the sole purpose is to ensure that students are prepared when they come to class.

  Labs (25%): Labs are a regular part of CSIS-1400 classes. Students work on their own computers (Let me know if you don't have a computer and we'll find a solution) Students are encouraged to collaborate and to look at each other’s code to help and support each other. Labs allow for collaboration because they are intended to build a bridge between understanding a concept and being able to apply it independently (during assignments)

Students are encouraged to complete their labs early on time because they help to prepare for assignments. Labs are accepted after the due date, up until the day before midterm or final. At which point the previous labs close.

- Programming Assignments (30%): Programming assignments are assigned on a regular basis - typically one every other week. The specific assignment, due date, and turn-in procedure are all managed through Canvas. Late work may be submitted up to one week following the due date (except for the last assignment, which is the team project), but a 20% penalty will be assessed. Programming Assignments are not accepted more than one week after the due date.
  Important: Even though students are encouraged to discuss homework assignments with each other, they need to be programmed independently - except for assignments that are explicitly posted as team assignments.
  All the code in assignments needs to be original code from the student or imported code from the Java API (Links to an external site.).
- Exams (20%): A midterm exam and a final exam are given. If a student can't make the scheduled exam, the instructor must be notified in advance so that arrangements can be made to take the exam another day. Without prior arrangements the exam can still be taken within a reasonable time, but a 20% penalty will be assessed.

Assignment Schedule

Due Date	Assignment Name	Assignment Type	Points
	A09 Dice	Assignment	40
	Any Questions?	Discussion	0
	Any Questions?	Discussion	0
	Have a nice Break!	Assignment	0
	Introduce Yourself	Discussion	0

Due Date	Assignment Name	Assignment Type	Points
	Lab 2D Array - Matrix	Assignment	10
	Lab Country	Assignment	10
	Lab Eratosthenes	Assignment	10
	Lab Hoppety Hop	Assignment	10
	Lab MagicSquare	Assignment	10
	Lab Martian Part 1	Assignment	10
	Lab Martian Part 2	Assignment	10
	Practice Exercises - Operator Precedence	Quiz	0
	Practice Java Terms 1	Quiz	0
	Q01 Printing	Quiz	6
	Q01 Printing - Practice Quiz	Quiz	0
	Roll Call Attendance	Assignment	100
	UNDERGRADUATE PROJECTS & RESEARCH CONFERENCE	Discussion	0
8/21	Quiz Printing	Quiz	5
8/23	A00 - This Is Me	Discussion	6
8/27	Quiz Arithmetic Operators	Quiz	6
8/27	Quiz Intro to Variables	Quiz	6
8/27	Quiz Variables and Scanner	Quiz	4

Due Date	Assignment Name	Assignment Type	Points
9/4	Q02 Variables	Quiz	8
9/4	Q02 Variables - Practice Quiz	Quiz	0
9/4	Quiz Boolean	Quiz	3
9/4	Quiz double | float	Quiz	5
9/4	Quiz If Statement with Activity Diagram	Quiz	8
9/4	A01 Print	Assignment	40
9/4	Lab First jGrasp Project	Assignment	10
9/4	Lab Marbles	Assignment	10
9/4	Variable / Scanner	Assignment	10
9/9	Lab If Statement (less, greater equal)	Assignment	10
9/11	If Statements Lab	Assignment	20
9/11	Lab Body Mass	Assignment	20
9/11	Team Assignment - Pick Groups	Assignment	5
9/16	Quiz Compound Operator | Increment	Quiz	6
9/16	Quiz Getters and Setters	Quiz	6
9/17	Quiz Conditional Operators and Logical Complement	Quiz	5

Due Date	Assignment Name	Assignment Type	Points
9/18	Quiz Algorithms ControlStructures If-Else	Quiz	8
9/18	Quiz Constructor	Quiz	5
9/18	A02 Ski Tickets	Assignment	25
9/18	Lab Ball	Assignment	10
9/18	Lab Parrot	Assignment	5
9/19	Q03 Accessing Instance Methods	Quiz	8
9/19	Q03 Accessing Instance Methods - Practice Quiz	Quiz	0
9/23	Practice Java Terms 2	Quiz	0
9/23	Quiz Intro to Classes	Quiz	8
9/23	Lab Employee	Assignment	10
9/25	A03 Sorting 3 Numbers	Assignment	40
9/25	A04 Conveyor	Assignment	40
9/25	Lab Char	Assignment	10
9/30	Quiz Char	Quiz	4
9/30	Quiz Overloading	Quiz	5
9/30	Quiz promotion casting	Quiz	7
10/2	Program Painting a Wall and Switch Menu	Assignment	30

Due Date	Assignment Name	Assignment Type	Points
10/6	Quiz Rand Numbers	Quiz	5
10/7	Lab TimeTable	Assignment	10
10/9	Q04 Loops	Quiz	8
10/9	Q04 Loops - Practice Quiz	Quiz	0
10/9	Lab Menu	Assignment	10
10/9	Lab While	Assignment	10
10/9	Program: Drawing a half arrow	Assignment	20
10/13	Quiz Nested Loop	Quiz	2
10/14	Q05 Transformation - Practice Quiz	Quiz	0
10/14	Quiz Scope	Quiz	4
10/14	Exercises	Assignment	50
10/16	Review Quiz	Quiz	70
10/16	Q05 Transformation	Quiz	5
10/16	A07 Volumes	Assignment	25
10/16	Project Scope	Assignment	10
10/17	Quiz Control Structures	Quiz	5
10/21	Quiz For	Quiz	4
10/21	Quiz While	Quiz	3
10/23	Program: Soccer Team Roster	Assignment	20

Due Date	Assignment Name	Assignment Type	Points
10/28	Quiz Do-While	Quiz	3
10/28	Quiz Switch	Quiz	7
10/28	A05 - Triangle	Assignment	40
10/29	Lab Random	Assignment	10
10/31	Final project Team Class Evaluation	Assignment	15
11/1	A10a - Team Assignment - Design	Assignment	20
11/3	Quiz Enum	Quiz	9
11/4	Quiz Array	Quiz	11
11/4	Quiz Command Line Arguments	Quiz	2
11/5	A06 Robot	Assignment	20
11/11	Q06 Arrays	Quiz	7
11/11	Q06 Arrays - Practice Quiz	Quiz	0
11/11	Quiz Class Arrays	Quiz	4
11/11	Quiz Varargs	Quiz	1
11/12	A08 Robot II	Assignment	30
11/14	Lab Class Arrays	Assignment	10
11/18	Quiz ArrayList	Quiz	5
11/18	Quiz Multi-dimensional Arrays	Quiz	2

Due Date	Assignment Name	Assignment Type	Points
11/19	A10b - Team Assignment - Significant Progress	Assignment	20
11/21	Lab PartyGuests	Assignment	10
12/2	Jamboree Video	Assignment	10
12/2	A10c Team Assignment - Project and Reflection	Assignment	58
12/3	Course evaluation	Assignment	15

Grading Scale

Letter Grade	Percentage
A	94%-100%
A-	90%-93%
B+	87% - 89%
B-	84% - 86%
C+	77% - 79%
C	74% - 76%
C-	70% - 73%
D+	67% - 69%
D	64% - 66%
D-	60% - 63%
E	59% and below

How to Navigate to Canvas

Institutional Policies

As members of our academic community, we would like to invite you to review the Institutional Syllabus which covers important policies and procedures. This document contains important links for students on the code of student rights and responsibilities, academic integrity, and grading policies, Title IX and other important acknowledgements. By familiarizing yourself with this information, you can help us create a safe and respectful environment for everyone.

You can access the document by clicking on the following link: https://slcc.instructure.com/courses/530981/pages/institutional-syllabus

Learning Support and Tutoring Services

We are pleased to offer a range of tutoring and learning support services to help you achieve your academic goals. Whether you need assistance with a specific subject or want to improve your study skills, you have many options for tutoring or other support.

To learn more about the services we offer and how to access them, please visit the Institutional Syllabus under the Tutoring and Learning Support tab: https://slcc.instructure.com/courses/530981/pages/institutional-syllabus. We encourage you to take advantage of these resources to help you succeed in your studies. If you have any questions or would like to schedule a tutoring session, please don't hesitate to reach out to us. We are here to support you in any way we can.

Advising and Counseling Support Services

At our institution, we are committed to supporting your academic and personal growth. That's why we offer a range of advising and counseling services to help you navigate the challenges of college life. To learn more about the resources available to you and how to access them, please visit the Institutional Syllabus under the Advising and Counseling Support Services tab: https://slcc.instructure.com/courses/530981/pages/institutional-syllabus. Our advising team and the support centers across campus are here to support you in achieving your goals and overcoming any obstacles you may face.

Student Academic Calendar

As students you should be aware of all important dates in the semester, such as the day that courses begin and end, as well as the drop date and the last day to withdraw. To learn more about those dates, navigate to the Student Academic Calendar below:

SLCC Student Academic Calendar

Additional Policies

Addition Policy

No additions will be allowed after the second week of class.

Withdrawal Policy

You are responsible for dropping or withdrawing from classes you are not attending or do not intend to complete in the current semester. You can drop/withdraw by the deadline dates published in the Academic Calendar (Links to an external site.) (Links to an external site.) for the current semester. If you are receiving Financial Aid or Veteran benefits, please notify the appropriate office when dropping classes. Withdrawals will be shown as a "W" on the transcript and are not calculated as part of the grade-point average (GPA). There are no refunds for withdrawn classes. If you stop attending classes without dropping/withdrawing by the published deadline, you will receive an "E" grade which is calculated in your GPA.