



**Tentative Schedule/Syllabus - CIS260 / CIS500 - Summer 2014**

1	<p><b>Homework1 Due: Th. May 29</b>  <b>*2.5</b> (<i>Financial application: calculate tips</i>) Write a program that reads the subtotal and the gratuity rate, then computes the gratuity and total. For example, if the user enters <b>10</b> for subtotal and <b>15%</b> for gratuity rate, the program displays <b>\$1.5</b> as gratuity and <b>\$11.5</b> as total. Here is a sample run:</p> <pre>Enter the subtotal and a gratuity rate: 10 15 The gratuity is \$1.5 and total is \$11.5</pre>
2	<p><b>NEW SCHEDULE / ROOM:</b>  As a result of the two votes taken in class, the new schedule is: <b>Mon, Tue, Wed, and Thu 12:00-2:05pm</b>. Please, remember we are now meeting in room <b>LB242</b>.</p>
3	<p><b>CIS TUTOR</b>  CIS tutoring hours this summer are: Monday - Thursday 10:00 am - 8:00 pm and Friday 10:00 am - 5:00 pm. (room BU344)</p>
4	<p><b>(1 pt.) Extra Credit Problem. Due: Th. June-5</b></p> <p><b>4.19**</b> (<i>Printing numbers in a pyramid pattern</i>) Write a nested <b>for</b> loop that prints the following output:</p> <pre>           1         1 2 1       1 2 4 2 1     1 2 4 8 4 2 1   1 2 4 8 16 8 4 2 1 1 2 4 8 16 32 64 32 16 8 4 2 1 1 2 4 8 16 32 64 128 64 32 16 8 4 2 1 </pre>
5	<p><b>(1 pt.) Extra Credit Problem. Due: Th. June-12</b></p> <p><b>5.27**</b> (<i>Emirp</i>) An <i>emirp</i> (prime spelled backward) is a nonpalindromic prime number whose reversal is also a prime. For example, <b>17</b> is a prime and <b>71</b> is a prime. So, <b>17</b> and <b>71</b> are emirps. Write a program that displays the first <b>100</b> emirps. Display <b>10</b> numbers per line and align the numbers properly, as follows:</p> <pre>     13  17  31  37  71  73  79  97  107  113    149 157 167 179 199 311 337 347 359 389    ... </pre>
6	<p><b>Homework2 Due: Th. June 19</b>  <b>Problem 5-31</b> (Credit card validation). Test your program with the following card numbers:  4388576018402626  4388576018410707</p>
7	<p><b>(1 pt.) Extra Credit Problem. Due: Th. June-19</b>  <b>Problem 6.1</b> – Assigning Grades</p>
8	<p><b>Homework3 Due: Th. June 26</b>  <b>Problem 6-5</b> (Printing distinct numbers). Test your program with the following values:</p> <pre>Enter ten numbers: 1 2 3 2 1 6 3 4 5 2 <input type="button" value="Enter"/></pre>

9 **Extra Credit – Due Th. 26<sup>th</sup>.**  
**Problem 9.29 (Business: check ISBN-13)** ISBN-13 is a new standard for identifying books. It uses the 13 digits  $d_1d_2d_3d_4d_5d_6d_7d_8d_9d_{10}d_{11}d_{12}d_{13}$ . The last digit, is a checksum, which is calculated from the other digits using the following formula:  
 $10 - (d_1 + 3d_2 + d_3 + 3d_4 + d_5 + 3d_6 + d_7 + 3d_8 + d_9 + 3d_{10} + d_{11} + 3d_{12}) \% 10$   
 If the checksum is 10, replace it with 0. Your program should read the input as a string. Here are sample runs:

```
Enter the first 12 digits of an ISBN-13 as a string:
978013213080 
The ISBN-13 number is 9780132130806
```

**CIS 260/500 Introduction to Programming (4 credits). – Summer 2014**  
**Section 1 – Class Nbr. 1471/1472. Mon-Fri 12:00 – 1:40 PM**

**Prerequisites:**

**Instructor:** Dr. Victor Matos  
**Office Location:** BU342 **Phone:** 216 687-3911  
**email:** [v.matos@csuohio.edu](mailto:v.matos@csuohio.edu)  
**webpage:** <http://grail.cba.csuohio.edu/~matos>  
**Office Time:** By appointment  
**Class Location:** ~~LB-243~~

**Catalog Description:** Introduction to the principles of computation, problem solving methods, and algorithm development on a computer using a current object-oriented programming language. Development of good programming style and basic skills of designing, coding, debugging, and documenting programs. Topics include functions, arrays, strings, structures, recursion, file I/O, referencing, and introduction to linked lists.

**Key Concepts:** An Overview of Computers and Programming Languages. Basic Elements of Java. Introduction to Objects and Input/Output Operations. Control Structures I (Selection, Repetition). Graphical User Interface (GUI) and Object-Oriented Design (OOD). User-Defined Functions. User-Defined Classes and ADT. Arrays. The Classes Vector, String, and Enumeration Type.

**Expected Outcomes:** At the end of this course, a student will be able: to design an effective computerized solution to a simple-moderate problem, to write a program implementing the solution, to effectively test a program to assess its correctness, to use recommended style and conventions when writing a program, to use a computer system to edit, compile, and execute a program.

**Text:** [Introduction to Java Programming, 9th Edition.](#)  
 Author: Y. Daniel Liang. Publisher: Prentice Hall  
 ISBN: 978-0132130806



**Book Resources:** Many useful resources including: answers to Review Question, solution to Programming Exercises, source code for examples, Servlets, JSP, JSF, and Web Services in Chapters 39-42, links to download software, VideoNotes and Web Chapters, etc. are available at the publisher’s web site: <http://www.cs.armstrong.edu/liang/intro9e/>

**Grading:** The course grade is based on the student's overall performance through the entire Semester. Attendance is highly recommended; observe that short unannounced pop-quizzes *could* be administered any week (they would count as *extra-credits* and will at most represent 2% of the total grade). The final grade is distributed among the following components:

Programming Projects            30%    (expect 4-to-6 assignments - Completion is required for obtaining a passing grade)  
 Term Exams                        70%    (expect 3-to-5 long exams - same value each)

Tentative Grade Scale	
A [93 - 100]	A: Outstanding (student's performance is excellent)
A- [90 - 92]	
B+ [88 - 89]	B: Very Good (student's performance is clearly commendable but not necessarily outstanding)
B [82 - 87]	

B- [80 - 81]	
C+ [77 - 79]	C: Satisfactory-Good (student's performance meets every course requirement and is acceptable; not distinguished)
C [75 - 76]	
D [65 - 74]	D: Below Average (student's performance fails to meet course objectives and standards)
F [0 - 64]	F: Failure

**Assignments:** All lab assignments are due at the beginning of class on the date specified. Laboratory Assignments handed in after the class has begun will be accepted with a 50% grade penalty for a period of ONE week and then not accepted at all. All laboratory assignments must be completed. Failure to do so will lower your course grade one additional letter grade.

**Student Conduct:** Students are expected to do their own work. Academic misconduct, student misconduct, cheating and plagiarism will not be tolerated. Violations will be subject to disciplinary action as specified in the [CSU Student Conduct Code](#). A copy can be obtained at: <http://www.csuohio.edu/studentlife/StudentCodeOfConduct.pdf> or by contacting Valerie Hinton Hannah, Judicial Affairs Officer in the Department of Student Life (MC 106 email [v.hintonhannah@csuohio.edu](mailto:v.hintonhannah@csuohio.edu)). For more information consult the following web page *CSU Judicial Affairs* available at <http://www.csuohio.edu/studentlife/jaffairs/faq.html>

**Examination Policy:** *Students are allowed to bring to the tests a summary page (standard letter size) with their own notes.* During the exams: (1) the use of books, cell phones, calculators, or any electronic devices is prohibited, and (2) students must not share any materials.

**Make-Up Exam Policy:** No makeup term-exams will be given unless notified and agreed to in advance. Requests will be considered only in case of exceptional demonstrated need.

**Extra-Credits.** Student's generated requests for 'extra-assignments' to replace/repair grades are *not considered*. There is no individualized "extra-credit" accommodation in this course that will allow you to gain points to push up your grade.

**Homework Policy:** The students are expected to attend all classes. The students are responsible for collecting the notes, handouts and any other course material distributed during the class period. All assignments must be individually and independently completed and must represent the effort of the student turning in the assignment. Should two or more students turn in *substantially the same solution* or output, in the judgment of the instructor, the solution will be considered group effort. All involved in group effort homework will receive a zero grade for that assignment. A student turning in a group effort assignment more than once will automatically receive an "F" grade for the course.

**Tentative Course Schedule:** The schedule of topics and their order of coverage is given below. Every effort will be made to follow the schedule, but topics covered and their sequence may vary depending upon the progress made.

Important dates - Six Week 1 Session	
1	Introduction to computers, programs, Java. (Ch-1) <a href="#">slides</a> Elementary programming. (Ch-2) <a href="#">slides</a>
2	Selection (Branching). (Ch-3) <a href="#">slides</a> Loops. (Ch-4) <a href="#">slides</a>
3	Methods. (Ch-5) <a href="#">slides</a> Arrays. (Ch-6) <a href="#">slides-6</a> and <a href="#">slides-7</a>
4	Objects and Classes. (Ch-8) <a href="#">slides</a> Strings and Text I/O. (Ch-9) <a href="#">slides</a> Thinking in Objects. (Ch-10) <a href="#">slides</a>
5	Inheritance and Polymorphism. (Ch-11) <a href="#">slides</a>
6	Exception Handling. (Ch-13) <a href="#">slides</a> Abstract classes and Interfaces. (Ch-14) <a href="#">slides</a>

### Method of Instruction

This course will use (a) traditional lectures based on recitation of the material, (b) live presentation of the software in the classroom, and (c) directed tutorials. During those supervised tutorials students will implement small pieces of code related to the topics discussed in class. Students are encouraged to actively participate in the class discussions. *Please bring your portable*

*computer.* Students may be asked to make a class presentation of their computer projects. Your instructor will try to reduce the amount of documents handed to you on paper; important messages, lecture notes, assignments, examples of previous coursework, code samples, etc., will be posted on the course web-page.

### What is expected of you and I

1. Class participation and regular attendance is expected.
2. Students are responsible for bringing themselves up-to-date on class material, evaluation schedule and assignments.
3. All students are expected to read the assigned chapters before attending classes.
4. Exams will be a combination of material presented in lectures, covered in the textbook and additional notes, homework problems, and lab experiences.
5. Homework and lab assignments should be completed and returned in operational form.
6. If I have to cancel a class, I will try to place a message on the course web page as early as possible. I will make efforts in recuperating any lost time.
7. All grading mistakes must be corrected no later than a week after receiving your graded papers.

**Official Calendar** Please consult the page <http://www.csuohio.edu/enrollmentservices/registrar/calendar/index.html>

Important dates - Six Week 1 Session	
Term Begins (Saturday)	Saturday, May 17, 2014
First Weekday Class	Monday, May 19, 2014
Last Day to Join a Course Waitlist	Tuesday, May 20, 2014
Last Day to Add (CampusNet Registration)	Wednesday, May 21, 2014
Last Day to Drop	Friday, May 23, 2014
Course Withdrawal Period Begins - 'W' Grade Assigned	Saturday, May 24, 2014
Last Day to Withdraw from Courses - "W" grade applies	Monday, June 16, 2014
Last Day of Classes	Friday, June 27, 2014

**List of Assignments:** *Assignments will be announced in class and posted on the course's web-site.*

**Programming Standards:** Every program must include your name, CSU ID number, the words 'Homework # ...', and a brief description of the assignment. Failure to do this will impact your grade. A sample follows:

```
// Name:      Maria Macarena (CSU-ID 1234567 Homework #1)
// Date:      5-May-2525
// Goal:      Computing the average life of a light bulb
```

- Every Java variable should have a meaningful name (this includes function/procedure/method names. For instance a variable named X is less meaningful than one called *monthlyInterestRate*).
- Every portion of the program should be as cohesive (single purposed) as possible. This leads to a large number of small methods.
- Every method (including the main function) should be preceded by a brief comment indicating its arguments and a description of the transformation that it performs.
- Non-obvious code within a function should be explained.
- Code should not be over commented.

### Programming Guidelines.

*Your code is expected to be formatted using a professional programming style.* Programming style deals with the *appearance* of your program. Good programming style and appropriate documentation reduce the chance of errors and make programs easy to read and maintain. Follow the link: <http://www.cs.armstrong.edu/liang/intro8e/supplement/Supplement1dcodingguidelines.html> for a brief guideline on coding protocols. Observe that Eclipse users could format a selected piece of syntactically correct code by just pressing the key combination "ALT + SHIFT + F".

### How to submit your homework.

Copy/Paste your entire **code** and **console** panel to a MS-Word (or equivalent) file. Code must be identified (Name, Date, Goal), documented, and formatted according to Java standards (Ctrl+Shf+F). *Print it and turn it in.*

**ADA Adherence:** If you need course adaptations or accommodations because of a disability, if you have emergency medical information to share with me, or if you need special arrangements in case the building must be evacuated, please make an appointment with me as soon as possible. My office location and hours are listed on top of this syllabus. If you need further information, please contact the Office of Disability Services (Main Classroom 147), phone number 216.687.2015, on the web at <http://www.csuohio.edu/offices/disability/>

**Tutoring.** Limited hours of tutoring are available at lab BU004. You need to initiate contact and set your individual scheduling arrangements with the tutors. Details TBA

**Additional Resources:** The following are links to pages in the Internet referencing JAVA software libraries, chat rooms, user groups, technical newsgroups, editorial houses, magazines, journals, etc.

*Software:*

- Java EE Downloads: <http://java.sun.com/javase/downloads/index.jsp>
- Eclipse IDE: <http://www.eclipse.org>
- NetBeans IDE: <http://www.netbeans.org>
- [Microsoft Academic Alliance](#)

*Video Lessons*

- Eclipse and Java for the Total Beginner by Mark Dexter <http://sourceforge.net/projects/eclipsetutorial/files/>  
also available at <http://eclipsetutorial.sourceforge.net/totalbeginner.html>
- 'Introduction to Computer Sciences and Programming' and, 'Introduction to Algorithms'. MIT Open Courseware Project. Massachusetts Institute of Technology.  
Available from: <http://ocw.mit.edu/courses/electrical-engineering-and-computer-science/>  
iTunes Podcast: <https://itunes.apple.com/us/itunes-u/lecture-3-problem-solving/id499270153?i=110101035>

*Support Groups*

- Java World: <http://www.javaworld.com/>
- Java Programming Resources: <http://www.apl.jhu.edu/~hall/java/>
- Java Sound Resources: <http://www.jsresources.org/links.html>
- On-Line Resources for Java Programmers: <http://java.sun.com/docs/books/tutorial/information/resources.html>
- Sun Developer's Network: <http://java.sun.com/>