



**Gifted LearningLinks Program  
Course Syllabus**

**Instructor name: TJ Leone**

**E-mail address: [tj@tjleone.com](mailto:tj@tjleone.com)**

**Course Title: Java Honors**

**Session Date:** June 15, 2012 to August 17, 2012

**Course Description:**

This course will introduce students to the Java programming language and object oriented programming techniques for the purpose of problem solving. Students will learn about flow of control, fundamental data types, variables, arithmetic expressions, classes, objects, constructors, fields, methods, inheritance, polymorphism, one and two dimensional arrays, and various forms of input and output including files (persistent data). Many of the programming problems that the students will investigate require the understanding of basic mathematical concepts (at least the level of Algebra I). The BlueJ integrated development environment and the latest Sun Java Development Kit will be used to create, edit, compile, execute, and explore Java applications and applets. The software used in this course runs on Windows, Mac OS X and Linux.

**Resources and Materials:**

- a. David J. Barnes and Michael Kölling, *Objects First with Java - A Practical Introduction using BlueJ*, Fifth edition, Prentice Hall / Pearson Education, 2012  
US: ISBN 978-013-249266-9 UK: ISBN 978-013-283554-1
- b. Students should have computers of their own. See <http://www.bluej.org/download/download.html> for information on downloading and installing BlueJ.

**CTD Statement on Third-Party Web Sites**

*Instructors are required to thoroughly review any third-party web sites they intend to use in their courses for inappropriate content. However, because web content continuously changes, CTD disclaims any responsibility for any of the content contained on third-party web sites used in course materials. If you become aware of anything that may be inappropriate, please notify CTD staff immediately.*

**Schedule:**

JAVA HONORS CALENDAR - Accelerated Summer Option				
	Topic/Focus	Activities & Reading Assignments	What do I need to post to the Discussion Board?	What do I need to turn in?
<b>Week 1</b>	Orientation to Online Learning. Classes and Objects	Welcome to Gifted LearningLinks Activities & Installation and Orientation to BlueJ and Submission of Homework. <a href="#">Watch Unit 1 videos</a> . Read Chapter 1. Do Exercises 1.1-1.36.	Introductions, questions or answers regarding BlueJ installation and submission of homework.	Interest survey, practice submission of figures project
<b>Week 2</b>	Class definitions	<a href="#">Watch Unit 2 video</a> . Read 2.1-2.3. Do Exercises 2.1-2.9. <a href="#">Watch Unit 3 videos</a> . Read 2.4-2.11. Do Exercises 2.10-2.45. <a href="#">Watch Unit 4 videos</a> . Read 2.12-2.23. Exercises 2.46-2.82.	questions and comments	
<b>Week 3</b>	Object structures and Object interactions	<a href="#">Watch Unit 5 videos</a> . Read 3.1-3.83. Do Exercises 3.1-3.22. <a href="#">Watch Unit 6 videos</a> . Read 3.84-3.15. Do Exercises 3.35-3.46	questions and comments	
<b>Week 4</b>	Collections and for-each loop	<a href="#">Watch Unit 7 videos</a> . Read 4.1-4.8. Do Exercises 4.1-4.17. <a href="#">Watch Unit 8 video</a> . Read 4.9. Do Exercises 4.18-4.28.	questions and comments	music-organizer
<b>Week 5</b>	while loop, Iterators, arrays and for loop	<a href="#">Watch Unit 9 video</a> . Read 4.10-4.11. Do Exercises 4.29-4.38. <a href="#">Watch Unit 10 videos</a> . Read 4.12-4.15. Do Exercises 4.39-4.60. Watch Unit 11 videos. Read 4.16-4.17	questions and comments	auction
<b>Week 6</b>	Library classes	Read 5.1-5.5. Do Exercises 5.1-5.22. Read 5.6-5.14. Do Exercises 5.23-5.73	questions and comments	
<b>Week 7</b>	Class design and refactoring	Read Chapter 6. Do Exercises 6.1-6.56	questions and comments	zuul
<b>Week 8</b>	STREAM	Watch STREAM video. Do STREAM exercises.	questions and comments	TBA
<b>Week 9</b>	Testing	Read Chapter 7. Do Exercises 7.1-7.37	questions and comments	FINAL EXAM

**Student Evaluation and Grading Policies for Credit Courses Only:**

a. CTD Grading scale

A+ 97-100	B+ 87-89	C+ 77-79	D+ 67-69	F Below 60
A 93-96	B 83-86	C 73-76	D 63-66	
A- 90-92	B- 80-82	C- 70-72	D- 60-62	

- a. Breakdown of final grade: 20% explanations, 50% documented puzzle solving, 20% design reviews, 10% feedback/journaling

**Instructor Biography:**

*TJ Leone has taught over twenty math and computer science courses at CTD since. He currently tutors K-14 students in math and computer science. He has also worked as a teacher at Chiaravalle Montessori School and an educational software developer at Northwestern University. He has a BA in Math and an MS in Computer Science from the City College of New York and an M.Ed. in Montessori Elementary Education from Loyola College in Maryland, as well as graduate work in Computer Science and Learning Sciences at Northwestern. He holds a Montessori teacher certification from the Association Montessori Internationale and is a Sun certified Java programmer.*

**Contact Information:**

Email: [tj@tjleone.com](mailto:tj@tjleone.com)

Cell: 847-951-0127