

***Olympiad School***  
***Course outline: Java Programming – Summer 2018***  
***Teacher: Mr Nanthi***

***Objectives:***

- 1) Students will learn the basic structure of the Java programming language
- 2) Students will learn the object oriented programming concepts in detail (Classes and Objects)
- 3) Student will be able to build application software at the end of this course

***Time :***

Session: Mondays, Tuesdays, Thursdays, Fridays 4:30-6:30pm

***Course text***

No course texts are necessary for this course. Any additional readings will be provided.

***Study Aid***

Please check the school's website regularly for lecture notes and homework questions. Students are expected to bring the following to each class:

- Lecture notes
- Laptop with NetBeans Installed

***Contact Information***

Email: [nanthivarmanj@gmail.com](mailto:nanthivarmanj@gmail.com)

***Evaluation Method***

There will be midterm test and final exam. The midterm will be on the 9th class and the final exam will be on the last class (16<sup>th</sup> class)

***Homework Submission***

All the homework must be submitted via **Google Class Room** as a compressed file. The homework for each class is due the day before the next class at 11:59pm.

**Class Schedule and Topics**

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<b>Unit Description</b>	<b>Sub topic</b>	<b>Class #</b>
Unit 1: Introduction to Programming	Unit 1 Activity 1: Introduction to programming and Introduction to NetBeans IDE	1
	Unit 1 Activity 2: Capturing and Displaying String Data	1
	Unit 1 Activity 3: Working with Numeric Data	2 & 3
	Unit 1 Activity 4: Capturing and Displaying Numeric Data	2 & 3
	Unit 1 Activity 5: Decision Structures	4 & 5
	Unit 1 Activity 6: Loops (Repetition Structures)	6 & 7
	Unit 1 Activity 7: Flowchart	7
	Unit 1 Activity 8: Summative Evaluation ( Test 1)	8
Unit 2: Advanced Programm ing Technique s	Unit 2 Activity 1: Bits and Bytes ( Binary System)	9
	Unit 2 Activity 2: String Handling Methods	9
	Unit 2 Activity 3: Functions ( Including Recursion)	10
	Unit 2 Activity 4: Arrays & Array List	11

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	Unit 2 Activity 5: Two Dimensional Array	11
	Unit 2 Activity 6 : Introduction to searching and sorting	12
	Unit 2 Activity 7 : Accessing external data( Reading and writing files)	13
Unit 3 : Introduction to Object Oriented Programming	Unit 3 Activity 1: Classes and Objects in Java	14
	Unit 3 Activity 2 : Encapsulation, Polymorphism and Inheritance	15
	Final Summative Exam	16

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