Programming in Java

This course consists of a series of practical classes designed to teach the basics of programming in Java. There are no lectures associated with this course, but there is a question based on it in the final exam. The material in this couse relies on the material taught concurrently in Object-Oriented Programming.

We expect you to attend a two-hour practical lesson once a week for the eight weeks. During the practical lessons you will work through course workbooks. You will also need to complete the associated assessed exercise, or *tick*, described at the end of each workbook.

The tasks you need to perform in week *n* of the practical class are as follows:

1. Arrive at the practical class at the start of your allocated time period (1400-1600, or 1600-1800).

2. Find a free computer.

3. Use the course webpage to find the electronic sign-up system and register for a marking slot. You should use this slot to get work for week *n-1* marked.

4. Leave your computer at the end of the session, taking your workbook(s) with you; you may continue to complete any exercises in your own time.

5. Ensure your solution to the exercises for week *n* is correct (including any automated tests) and print it out ready for marking in week *n+1*.

Note: when *n*=1 (i.e. the first week), the ticker will mark your final submission for ML, and when *n*=8 there is no additional Programming in Java work but the ticker will mark your submission for Java tick 7.

Those students who are offering only Paper 1 of the Computer Science Tripos need only complete the first five ticked exercises but are free (and encouraged) to attempt all seven. The starred exercises are optional to all students.

Course schedule

Week 1: 13th November	Workbook 1: Java command-line tools; primitive types and operators
Week 1: 13th November	Workbook 1*: Binary representation of floating point numbers
Week 2: 20th November	Workbook 2: Conditional execution and loops
Week 2: 20th November	Workbook 2*: More loops
Week 3: 27th November	Workbook 3: Arrays and references
Week 3: 27th November	Workbook 3*: Animated graphics
Week 4: 15th January	Workbook 4: Exceptions; reading data from external sources
Week 4: 15th January	Workbook 4*: Batch analysis and statistics
Week 5: 22nd January	Workbook 5: Interfaces and inheritance
Week 5: 22nd January	Workbook 5*: Audio synthesis
Week 6: 29th January	Workbook 6: Building a Graphical User Interface (GUI)
Week 6: 29th January	Workbook 6*: Drawing graphs
Week 7: 5th February	Workbook 7: Handling GUI events
Week 7: 5th February	Workbook 7*: More GUI programming
Week 8: 12th February	Algorithms practical class and final ticking session for Java.
Date to be confirmed	Last ticking session for any remaining unmarked work