Mehran Sahami Handout #2

CS 106A September 24, 2007

CS 106A Syllabus

(subject to change)

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| Monday | Wednesday | Friday |
| Oct 16  Welcome to CS106A Administrivia  Meet Karel the Robot  Lecture 1 | Oct 18  Programming with Karel Control structures in Karel  Lecture 2  **Read: Karel, Chapters 1-3** | Oct 20  Problem-solving in Karel Program decomposition The idea of an algorithm  Lecture 3  **Read: Karel, Chapters 4-6** |
| Oct 22  Introduction to Java Classes and objects  The **Program** class hierarchy  Lecture 4  **Read: Java, Chapters 1-2** | Oct 24  Variables, values, and types Arithmetic expressions  Lecture 5  **Read: Chapter 3** | Oct 26  Control statements Boolean expressions  Lecture 6  **Read: Chapter 4**  **Due: Assignment #1** |
| Oct 29  Methods Using parameters  Lecture 7  **Read: Chapter 5** | Oct 31  Pseudorandom numbers The **RandomGenerator** class  Lecture 8  **Read: Chapter 6** | Nov 2  Stylistic expectations Engineering for reuse Using **javadoc**  Lecture 9 |
| Nov 5  The **acm.graphics** package The collage graphics model  Lecture 10  **Read: Chapter 9.1-9.3**  **Due: Assignment #2** | Nov 7  More graphics Event driven programming  Lecture 11  **Read: Chapter 9.4**  **Chapter 10.1–10.4** | Nov 9  Character data The Java **String** class  Lecture 12  **Read: Chapter 8.1-8.4** |
| Nov 12  String manipulation Problem-solving with strings  Lecture 13  **Read: Chapter 8.5** | Nov 14  Objects and memory More on parameter passing  Lecture 14  **Read: Chapter 7**  **Due: Assignment #3** | Nov 16  File processing Exception handling  Lecture 15  **Read: Chapter 12.4** |

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| Monday | Wednesday | Friday |
| Nov 19  Debugging strategies  Lecture 16 | Nov 21  Arrays in Java  Lecture 17  **Read: Chapter 11.1-11.5** | Nov 23  Belated midterm recovery day (*No class*) |
| **Tuesday, O 7:00-8:30p** | **ctober 30th m: Midterm** |  |
| Nov26  Arrays (continued) The **ArrayList** class  Lecture 18  **Read: Chapter 11.6-11.8**  **Due: Assignment #4** | Nov 28  Java collections framework The **HashMap** class Iterators  Object-oriented design  Lecture 19  **Read: Chapter 13** | Nov 30  Swing interactors  The **JComponent** hierarchy Action listeners  Lecture 20  **Read: Chapter 10.5–10.6** |
| Dec 3  Graphical user interfaces Interactors  Lecture 21  **Read: Chapter 10.7–10.8** | Dec 5  Large-scale data structures Data-driven programs  Lecture 22  **Due: Assignment #5** | Dec 7  Sorting and searching Algorithmic analysis  Lecture 23  **Read: Chapter 12.1-12.3** |
| Dec 10  Thanksgiving recess (*No class*)  *Be happy to be on break...* | Dec 12  Thanksgiving recess (*No class*)  *Prepare to eat a lot...* | Dec14  Thanksgiving recess (*No class*)  *Recover from over-eating...* |
| Dec17  Programming in the large Software engineering Programming patterns  Lecture 24 | Dec 19  Additional topics  Lecture 25  **Due: Assignment #6** | Dec21  Standard Java The **main** method  Lecture 26 |
| Dec 24  Life after CS106A (is there any?)  Lecture 27 | Dec 26  Review for Final Exam  Lecture 28 | Dec 28  Dead Day: our token attempt at Dead Week (*No class lecture; sections meet as usual*)  **Due: Assignment #7** |

**Final Examination**: Thursday, December 13th, 12:15pm to 3:15pm