

## CS106A Syllabus

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This handout contains the tentative syllabus for CS106A. Depending on how quickly we're able to make it through the material, we may end up spending more or less time on each of these topics. Readings should be done **before** the lecture for which they are assigned.

Date	Topics	Readings	Assignments
<b>M</b> January 9	Course Information Karel the Robot		
<b>W</b> January 11	Programming with Karel Control Structures in Karel	<b>Karel: Chs. 1-3</b>	Assignment 1 Out
<b>F</b> January 13	Problem-Solving with Karel Program Decomposition What is an Algorithm?	<b>Karel: Chs. 4-6</b>	
<b>M</b> January 16	<b>Martin Luther King, Jr. Day No Class</b>		
<b>W</b> January 18	Introduction to Java Classes and Objects The <b>Program</b> Class Hierarchy	<b>Java: Chs. 1-2</b>	
<b>F</b> January 20	Variables, Values, and Types Arithmetic Expressions	<b>Java: Ch. 3</b>	Assignment 1 Due
<b>M</b> January 23	Control Statements Boolean Expressions	<b>Java: Ch. 4</b>	Assignment 2 Out
<b>W</b> January 25	Methods Parameters	<b>Java: Ch. 5</b>	
<b>F</b> January 27	More Parameters Pseudorandom Numbers <b>RandomGenerator</b>	<b>Java: Ch. 6</b>	
<b>M</b> January 30	Creating Your Own Classes Stylistic Expectations Using <b>javadoc</b>		
<b>W</b> February 1	The <b>acm.graphics</b> Package The Collage Model	<b>Java: Ch. 9.1-9.3</b>	Assignment 2 Due Assignment 3 Out
<b>F</b> February 3	Graphics Programming Event-Driven Programming	<b>Java: Ch. 9.4</b> <b>Java: Ch. 10.1-10.4</b>	

<b>M</b> February 6	Character and Text Data The <b>String</b> Class	<b>Java: Ch. 8.1-8.4</b>	
<b>W</b> February 8	String Manipulation Problem Solving with Strings	<b>Java: Ch. 8.5</b>	
<b>F</b> February 10	Objects and Memory More on Parameter Passing	<b>Java: Ch. 7</b>	Assignment 3 Due Assignment 4 Out
<b>M</b> February 13	File Processing Exception Handling	<b>Java: Ch. 12.4</b>	
<b>Midterm Exam: Monday, February 13 7:00PM – 9:00PM, Location TBA</b>			
<b>W</b> February 15	Arrays and <b>ArrayLists</b>	<b>Java: Ch. 11</b>	
<b>F</b> February 17	More Arrays and <b>ArrayLists</b>		
<b>M</b> February 20	<b>Presidents' Day No Class</b>		
<b>W</b> February 22	Debugging Strategies		Assignment 4 Due Assignment 5 Out
<b>F</b> February 24	Collections <b>HashMap</b> and Iterators Object-Oriented Design	<b>Java: Ch. 13</b>	
<b>M</b> February 27	Data Structure Design		
<b>W</b> February 29	Swing Interactors The <b>JComponent</b> Hierarchy Action Listeners	<b>Java: Ch. 10.5-10.6</b>	Assignment 5 Due Assignment 6 Out
<b>F</b> March 2	Graphical User Interfaces Interactors Component Listeners	<b>Java: Ch. 10.7-10.8</b>	

<b>M</b> March 5	Sorting and Searching Algorithmic Analysis	<b>Java: Ch. 12.1-12.3</b>	
<b>W</b> March 7	Programming in the Large Software Engineering		Assignment 6 Due Assignment 7 Out
<b>F</b> March 9	Standard Java The Java <b>main</b> Method		
<b>M</b> March 12	Fun and Exciting Additional Topics		
<b>W</b> March 14	Fun and Exciting Additional Topics		
<b>F</b> March 16	Where to Go from Here		Assignment 7 Due <b>No Late Days</b>
<b>W</b> March 21	<b>Final Exam: 12:15 – 3:15, Location TBA</b>		