

## CS 106A Syllabus

(subject to change at any time by the management)

Monday	Wednesday	Friday
<p>September 25</p> <p>Welcome to CS106A Administrivia Meet Karel the Robot</p>	<p>27</p> <p>Programming with Karel Control structures in Karel</p> <p><b>Read: Karel, Chapters 1-3</b></p>	<p>29</p> <p>Problem-solving in Karel Program decomposition The idea of an algorithm</p> <p><b>Read: Karel, Chapters 4-6</b></p>
<p>October 2</p> <p>Introduction to Java Classes and objects The <code>Program</code> class hierarchy</p> <p><b>Read: Java, Chapters 1-2</b></p>	<p>4</p> <p>Variables, values, and types Arithmetic expressions</p> <p><b>Read: Chapter 3</b></p>	<p>6</p> <p>Control statements Boolean expressions</p> <p><b>Read: Chapter 4</b> <b>Due: Assignment #1</b></p>
<p>9</p> <p>Methods Using parameters</p> <p><b>Read: Chapter 5</b></p>	<p>11</p> <p>More parameters Pseudorandom numbers The <code>RandomGenerator</code> class</p> <p><b>Read: Chapter 6</b></p>	<p>13</p> <p>Creating classes Stylistic expectations Using <code>javadoc</code></p>
<p>16</p> <p>The <code>acm.graphics</code> package The collage graphics model</p> <p><b>Read: Chapter 9.1-9.3</b> <b>Due: Assignment #2</b></p>	<p>18</p> <p>More graphics Event driven programming</p> <p><b>Read: Chapter 9.4</b> <b>Chapter 10.1–10.4</b></p>	<p>20</p> <p>Character data The Java <code>String</code> class</p> <p><b>Read: Chapter 8.1-8.4</b></p>
<p>23</p> <p>String manipulation Problem-solving with strings</p> <p><b>Read: Chapter 8.5</b></p>	<p>25</p> <p>Objects and memory More on parameter passing</p> <p><b>Read: Chapter 7</b> <b>Due: Assignment #3</b></p>	<p>27</p> <p>File processing Exception handling</p> <p><b>Read: Chapter 12.4</b></p>

Monday	Wednesday	Friday
30 Arrays and <b>ArrayList</b>  <b>Read: Chapter 11.1-11.8</b>	November 1 Arrays and <b>ArrayList</b> (continued)  <b>Thursday, November 2nd</b> <b>7:00-9:00pm: Midterm</b>	3 Midterm recovery day ( <i>No class</i> )
6 Debugging strategies  <b>Due: Assignment #4</b>	8 Java collections framework The <b>HashMap</b> class Iterators Object-oriented design  <b>Read: Chapter 13</b>	10 Swing interactors The <b>JComponent</b> hierarchy Action listeners  <b>Read: Chapter 10.5–10.6</b>
13 Graphical user interfaces Interactors  <b>Read: Chapter 10.7–10.8</b>	15 Component listeners Data structure design  <b>Due: Assignment #5</b>	17 Sorting and searching Algorithmic analysis  <b>Read: Chapter 12.1-12.3</b>
20 Thanksgiving recess ( <i>No class</i> )  <i>Be happy to be on break...</i>	22 Thanksgiving recess ( <i>No class</i> )  <i>Prepare to eat a lot...</i>	24 Thanksgiving recess ( <i>No class</i> )  <i>Recover from over-eating...</i>
27 Programming in the large Software engineering	29 Social networks Additional topics  <b>Due: Assignment #6</b>	December 1 Standard Java The <b>main</b> method
4 Life after CS106A (is there any?)	6 Review for Final Exam	8 Dead Day: our token attempt at Dead Week ( <i>No class lecture;</i> <i>sections meet as usual</i> ) <b>Due: Assignment #7</b> ( <i>No late days on Assign. #7</i> )

**Final Examination:** Monday, December 11th, 8:30am to 11:30am