

CS 106A Syllabus

(subject to change at any time by the management)

Monday	Wednesday	Friday
<p>April 1</p> <p>Welcome to CS106A Administrivia Meet Karel the Robot</p>	<p>3</p> <p>Programming with Karel Control structures in Karel</p> <p>Read: Karel, Chapters 1-3</p>	<p>5</p> <p>Problem-solving in Karel Program decomposition The idea of an algorithm</p> <p>Read: Karel, Chapters 4-6</p>
<p>8</p> <p>Introduction to Java Classes and objects The Program class hierarchy</p> <p>Read: Java, Chapters 1-2</p>	<p>10</p> <p>Variables, values, and types Arithmetic expressions</p> <p>Read: Chapter 3</p>	<p>12</p> <p>Control statements Boolean expressions</p> <p>Read: Chapter 4 Due: Assignment #1</p>
<p>15</p> <p>Methods Using parameters</p> <p>Read: Chapter 5</p>	<p>17</p> <p>More parameters Pseudorandom numbers The RandomGenerator class</p> <p>Read: Chapter 6</p>	<p>19</p> <p>Creating classes Stylistic expectations Using javadoc</p> <p>Due: Assignment #2</p>
<p>22</p> <p>The acm.graphics package The collage graphics model</p> <p>Read: Chapter 9.1-9.3</p>	<p>24</p> <p>More graphics Event driven programming</p> <p>Read: Chapter 9.4 Chapter 10.1-10.4</p>	<p>26</p> <p>Character data The Java String class</p> <p>Read: Chapter 8.1-8.4</p>
<p>29</p> <p>String manipulation Problem-solving with strings</p> <p>Read: Chapter 8.5 Due: Assignment #3</p>	<p>May 1</p> <p>Objects and memory More on parameter passing</p> <p>Read: Chapter 7</p>	<p>3</p> <p>File processing Exception handling</p> <p>Read: Chapter 12.4</p>

Monday	Wednesday	Friday
<p>6</p> <p>Arrays in Java</p> <p>Read: Chapter 11.1-11.5</p>	<p>8</p> <p>More arrays The ArrayList class</p> <p>Read: Chapter 11.6-11.8</p>	<p>10</p> <p>Debugging strategies</p> <p>Due: Assignment #4</p>
<p>Tuesday, May 7th 7:00-9:00pm: Midterm</p>		
<p>13</p> <p>Java collections framework The HashMap class Iterators Object-oriented design</p> <p>Read: Chapter 13</p>	<p>15</p> <p>Swing interactors The JComponent hierarchy Action listeners</p> <p>Read: Chapter 10.5-10.6</p>	<p>17</p> <p>Graphical user interfaces Interactors</p> <p>Read: Chapter 10.7-10.8 Due: Assignment #5</p>
<p>20</p> <p>Component listeners Data structure design</p>	<p>22</p> <p>Sorting and searching Algorithmic analysis</p> <p>Read: Chapter 12.1-12.3</p>	<p>24</p> <p>Programming in the large Software engineering</p> <p>Due: Assignment #6</p>
<p>27</p> <p>Memorial Day <i>(no class)</i></p>	<p>29</p> <p>Standard Java The main method</p>	<p>31</p> <p>Social networks Additional topics</p>
<p>June 3</p> <p>Review for Final Exam</p>	<p>5</p> <p>Dead Day: our token attempt at Dead Week <i>(No class lecture; No sections)</i></p> <p>Due: Assignment #7 (No late days on Assign. #7)</p>	

Final Examination: Wednesday, June 12th, 8:30am to 11:30am