

## CS 106A Calendar

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Monday	Wednesday	Friday
<p>April 2</p> <p style="text-align: center;">Administration CS and the Honor Code Meet Karel the Robot</p>	<p>4</p> <p style="text-align: center;">Simple Karel programs Extending the <code>Karel1</code> class The concept of inheritance Control structures in Karel</p> <p><b>Read: Karel, Chapters 1-3</b></p>	<p>6</p> <p style="text-align: center;">Problem-solving in Karel Program decomposition The idea of an algorithm</p> <p><b>Read: Karel, Chapters 4-6</b></p>
<p>9</p> <p style="text-align: center;">Programming by example Classes and objects The <code>Program</code> hierarchy Simple graphical objects</p> <p><b>Read: Java, Chapter 1</b></p>	<p>11</p> <p style="text-align: center;">Variables and values Arithmetic expressions Common idioms</p> <p><b>Read: Chapters 2 and 3</b></p>	<p>13</p> <p style="text-align: center;">Control statements Boolean data Simple animations</p> <p><b>Read: Chapter 4</b> <b>Due: HW #1 (Karel)</b></p>
<p>16</p> <p style="text-align: center;">Methods The role of parameters</p> <p><b>Read: Chapter 5</b> <b>Due: Karel contest</b></p>	<p>18</p> <p style="text-align: center;">Pseudorandom numbers The <code>RandomGenerator</code> class Reading <code>javadoc</code></p> <p><b>Read: Sections 6.1-6.2</b> <b>Due: HW #2 (Simple Java)</b></p>	<p>20</p> <p style="text-align: center;">Objects and classes Constructors Inheritance</p> <p><b>Read: Sections 6.3-6.6</b></p>
<p>23</p> <p style="text-align: center;">The <code>acm.graphics</code> package Responding to mouse events The Java listener model</p> <p><b>Read: Sections 9.1-9.3</b> <b>Sections 10.1-10.3</b></p>	<p>25</p> <p style="text-align: center;">Graphical structures <code>GPolygon</code> and <code>GCompound</code> Creating compound objects</p> <p><b>Read: Section 9.3-9.4</b> <b>Due: Parameter problem set</b></p>	<p>27</p> <p style="text-align: center;">Character data Using Java's <code>string</code> class</p> <p><b>Read: Sections 8.1-8.4</b></p>
<p>30</p> <p style="text-align: center;">String manipulation Problem-solving with strings</p> <p><b>Read: Section 8.5</b></p>	<p>May 2</p> <p style="text-align: center;">Data representation Objects and memory</p> <p><b>Read: Chapter 7</b> <b>Due: HW #3 (Breakout)</b></p>	<p>4</p> <p style="text-align: center;">Arrays</p> <p><b>Read: Sections 8.1-8.4</b></p>

Monday	Wednesday	Friday
<p>May 7</p> <p>Debugging strategies</p>	<p>9</p> <p>Multidimensional arrays</p>	<p>11</p> <p>Pixel arrays Image manipulation</p>
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">                     Midterm exam                      Tuesday, May 8                      9:00 A.M. or 3:15 P.M.                 </div>		<p><b>Read: Section 11.7</b> <b>Due: HW #4 (TurtleGraphics)</b></p>
<p>14</p> <p>Swing interactors The <code>JComponent</code> hierarchy Action listeners</p>	<p>16</p> <p>The <code>ArrayList</code> class Simple file I/O</p>	<p>18</p> <p>Java collection classes The <code>HashMap</code> class Iterators</p>
<p><b>Read: Sections 10.5-10.6</b></p>	<p><b>Read: Sections 11.8, 12.4</b></p>	<p><b>Read: Chapter 13</b> <b>Due: HW #5 (ImageShop)</b></p>
<p>21</p> <p>The <code>acm.gui</code> package The <code>TableLayout</code> class Designing GUIs</p>	<p>23</p> <p>Large-scale data structures Data-driven programs</p>	<p>25</p> <p>Overview of Adventure!</p>
<p><b>Read: Sections 10.7-10.8</b></p>		<p><b>Read: Adventure handout</b> <b>Due: HW #6 (NameSurfer)</b></p>
<p>28</p> <p>Memorial Day</p> <p>(no class)</p>	<p>30</p> <p>Sorting and searching Algorithmic analysis</p>	<p>June 1</p> <p>Looking ahead: Recursion Concurrency Programming patterns</p>
	<p><b>Read: Sections 12.1-12.3</b></p>	<p><b>Read: Chapter 14</b></p>
<p>4</p> <p>Frontiers of computing (optional)</p>	<p>6</p>	<p>8</p>
<p><b>Due: HW #7 (Adventure)</b> <b>Due: Adventure contest</b></p>	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">                     Review session                      Wednesday, June 6                      7:00–9:00 P.M.                 </div>	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">                     Scheduled final                      Friday, June 8                      8:30–11:30 A.M.                 </div>
<p>11</p>		
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">                     Alternate final                      Monday, June 11                      8:30–11:30 A.M.                 </div>		