

## Java Camp Daily Schedule

8:30 am	computer lab is open
8:30 am – 9:00 am	day student drop-off
M & W 8:30 am – 10:00 am	self-directed Java review exercises & activities
T, R, & F 8:30 am – 10:00 am	instructor demonstrations, lecture, & discussion
10:00 am – 10:15 am	morning break
10:15 am – 12:00 pm	instructor demonstrations, lecture, & discussion
12:00 pm – 1:00 pm	lunch
1:00 pm – 2:30 pm	instructor demonstrations, lecture, & discussion
2:30 pm – 2:45 pm	afternoon break
2:45 pm – 4:30 pm	instructor demonstrations, lecture, & discussion
4:30 pm – 5:00 pm	daily Java programming contest
5:00 pm – 5:30 pm	day student pick-up
5:30 pm – 6:30 pm	dinner

### Evening Activity Schedule

#### Sunday

- 4:00 Check-in at Ivy House
- 5:30 Dinner - Tully
- 6:45 Campus tour and orientation
- 7:45 Computer lab orientation – log-in procedures & rules
- 8:45 Commuters depart & resident campers to halls

#### Monday

- 5:30 Dinner (residents)
- 6:30 Java campers to Mr. Minich's CMPSC 101 C++ Class in Luerssen Hall Room 142
- 8:00 Astronomy session (8:30 discussion & telescope set-up; 9:00 gazing)
- 10:00 Commuters depart & resident campers to halls  
(in case of inclement weather Astronomy moves to Tuesday & movie to Monday)

Room 137 in the library is open from 5 – 10 p.m. for work on Java exercises & programming project.

#### Tuesday

- 5:30 Dinner (residents)
- 6:30 Computer lab time in Thun Library Room 137
- 8:00 Movie - Ivy Residence Hall
- 10:00 Commuters depart & resident campers to halls

Room 137 in the library is open from 5 – 10 p.m. for work on Java exercises & programming project.

#### Wednesday

- 5:30 Dinner (residents)

- 6:30 Volleyball, basketball, board games, hike to Grings Mill Recreation Area,  
GPS scavenger hunt?  
10:00 Commuters depart & resident campers to halls

Thursday

- 5:30 Dinner (residents)  
6:30 Computer lab time in Thun Library Room 137 - work on programming project  
7:30 College Admissions session with Lion Ambassadors & PSU admissions official  
8:30 Open Mike/Concert  
10:00 Commuters depart & resident campers to halls

Thun Library Room 137 is open from 5 – 10 p.m. for work on Java exercises & programming project.

Teaching Assistants: Andrew McCrory, Eric Tadeo, & Brendan Fullam

## Java Camp Daily Schedule with Lesson Plans

### Monday

- 8:30 am computer lab is open  
8:30 am – 9:00 am day student drop-off  
8:30 am – 10:00 am self-directed activity:  
  
survey  
Internet scavenger hunt – find Java games, Java tutorials, Java college course info, AP exam info, Java download info at Sun, facts about fellow students, etc.
- 10:00 am – 10:15 am break  
10:15 am – 12:00 pm instructor lecture
- Hello World
  - System.out.println demos & activities
  - using JCreator
- 12:00 pm – 1:00 pm lunch  
1:00 pm – 2:30 pm instructor lecture
- downloading JCreator, Java SDK
  - using javac & java from DOS prompt
  - more System.out.println demos & activities
- 2:30 pm – 2:45 pm break  
2:45 pm – 4:30 pm instructor lecture
- primitive variables, Strings
  - casting, math operators, arrays
  - console input
  - console input demos & activities (e.g. Fah to Cel)
- 4:30 pm – 5:00 pm daily Java programming contest
- ASCII text picture of \_\_\_\_\_?\_\_\_\_\_
- 5:00 pm – 5:30 pm day student pick-up

### Tuesday

- 8:30 am computer lab is open  
8:30 am – 9:00 am day student drop-off  
8:30 am – 10:00 am instructor lecture
- if statements, loops, and arrays
  - logical and relational operators
  - Equals method vs. ==
  - seq. searching & menu driven store demos & activities
- 10:00 am – 10:15 am break  
10:15 am – 12:00 pm instructor lecture
- demonstrate setting up a workspace & project with JCreator

- Java objects & methods (e.g. String, Math, println, abs)
  - Making your own class with methods incl. accessors, modifiers, & constructors
- 12:00 pm – 1:00 pm lunch
- 1:00 pm – 2:30 pm instructor lecture
- Overloading methods & constructors
  - Private instance fields
  - Static class methods
  - Copying object variables (reference) vs. primitive variables
- 2:30 pm – 2:45 pm break
- 2:45 pm – 4:30 pm instructor lecture
- Using the Java API's
  - More examples & activities of projects with 2 or more classes
  - Begin to work on Final Project (more pet classes)
- 4:30 pm – 5:00 pm daily Java programming contest
- Trace the tricky Java code that copies a lot of objects by reference
- 5:00 pm – 5:30 pm day student pick-up

### Wednesday

- 8:30 am computer lab is open
- 8:30 am – 9:00 am day student drop-off
- 8:30 am – 10:00 am self directed activities:

Work on Final Project

- 10:00 am – 10:15 am break
- 10:15 am – 12:00 pm instructor lecture
- Intro to GUI applications
- 12:00 pm – 1:00 pm lunch
- 1:00 pm – 2:30 pm instructor lecture
- Examples of GUI applications
  - Activity – Convert first single-class console programs to GUI applications
- 2:30 pm – 2:45 pm break
- 2:45 pm – 4:30 pm instructor lecture
- If time – teach the grid layout with Swing classes
  - If time – teach inheritance by adding a Pet class as superclass of Dog
  - Work on Final Project
- 4:30 pm – 5:00 pm daily Java programming contest
- 5:00 pm – 5:30 pm day student pick-up

### Thursday

- 8:30 am computer lab is open
- 8:30 am – 9:00 am day student drop-off
- 8:30 am – 10:00 am instructor lecture
- Intro to applets
  - HelloWeb applet
  - Using elementary Graphics methods
  - Introduce graphic window coordinates
- 10:00 am – 10:15 am break
- 10:15 am – 12:00 pm instructor lecture
- Intro to HTML and viewing source
  - Find references to .class file in online Java games
  - Using free Java .class files in web pages
- 12:00 pm – 1:00 pm lunch
- 1:00 pm – 2:30 pm instructor lecture
- Explore Java API's for more Graphics methods
  - If time – user input to applets
- 2:30 pm – 2:45 pm break
- 2:45 pm – 4:30 pm instructor lecture
- Work on Pets final project or the alternative final project of using 10 or more Graphics API's.
  - If time – using Runnable interface to allow streams to make animation
- 4:30 pm – 5:00 pm daily Java programming contest
- Draw a picture of \_\_\_\_\_? \_\_\_\_\_ using Graphics methods
- 5:00 pm – 5:30 pm day student pick-up

## Friday

- 8:30 am computer lab is open
- 8:30 am – 9:00 am day student drop-off
- 8:30 am – 10:00 am instructor lecture
- College Board AP Exam Subset topics
  - Intro to Marine Biology
  - Use of Java in college computer science programs
  - Use of Java in industry
  - How to learn more Java (online tutorials, etc.)
  - Explore other Java applets written by high school students
- 10:00 am – 10:15 am break
- 10:15 am – 12:00 pm instructor lecture
- Work on final projects
  - Present final projects to the class
- 12:00 pm – 1:00 pm lunch
- 1:00 pm – 2:30 pm instructor lecture?