



# Computer Science 501 Data Structures & Algorithms

The College of Saint Rose  
Fall 2013

## Lab 1: Conway's Day of the Week Calculator

Due: 6:00 PM, Wednesday, September 4, 2013

This week's lab exercise is intended to bring you up-to-speed or back up-to-speed, as the case may be, with Java programming. You may discuss the lab with your classmates and offer each other some help, but everyone's work for submission must be their own.

---

### Lab Program

Write the program for the lab exercise at the end of Chapter 1 of Bailey. Use a single Java source file `Date.java`. The `main` method required by step 4 of the procedure might normally be more appropriate in a separate class, but keep it in the `Date` class here for simplicity.

Don't forget to answer the thought questions as well. Please put the answers to these in a comment at the top of your Java program.

---

### Submission

Before 6:00 PM, Wednesday, September 4, 2013, submit your Java program for grading. There are two things you need to do to complete the submission: (i) upload a copy of your Java program (the `.java` file only) using Submission Box at <http://sb.teresco.org> under assignment "Conway", and (ii) print and turn in a hard copy of your program.

Don't forget to check your programs for compliance with the Style Guide for CSC 501 Programs

---

### Grading

| Grading Breakdown                              |          |
|--|----------|
| Basic <code>Date</code> class                  | 5 points |
| Method to compute day of week                  | 5 points |
| Generation of valid random dates               | 4 points |
| <code>main</code> method to play Conway's game | 4 points |
| Program documentation                          | 4 points |
| Style and formatting                           | 3 points |
| Thought Questions                              | 5 points |