```java
import java.text.ParseException;

/*************************************************************
* Dalton Nofs                                                *
* Login ID: nofs5491                                         *
* CS-102, Summer 2017                                        *
* Programming Assignment 4                                   *
* Course class:  default class for Course objects             *
*************************************************************/
public class Course implements Comparable<Course>
{
    int creditCount;     // Number of credits the class is worth (1-4)
    String termTaken;    // Term and year class was taken
    String termTakenRaw; // Term taken raw format "01,02,03,04"
    String yearTaken;     // Year course was taken
    String courseNumber; // Course number ie: CS-471
    String courseTitle;  // Title of course ie: Software Engineering 1
    String courseGrade;  // Grade achieved by student ("A-" or "I", "CR")
    String excludeFlag;  // Flag for checking to see if grade should be in gpa calc

    /*************************************************************
    * Method: get[private_var]()                                 *
    * Purpose: Provide the ability to access private Course      *
    *          variables                                         *
    * Parameters:                                                *
    *                             N/A                             *
    * Returns: String/Int:       private variable value            *
    *************************************************************/
    public int getCreditCount()
    {
        return creditCount;
    }
    public String getTermTaken()
    {
        return termTaken;
    }
    public String getTermTakenRaw()
    {
        // raw form, only 01,02,03,04 is stored, however
        //     for true raw we want year as well so return it
        return (yearTaken+termTakenRaw);
    }
    public String getYearTaken()
    {
        return yearTaken;
    }
    public String getCourseNumber()
    {
        return courseNumber;
    }
    public String getCourseTitle()
    {
        return courseTitle;
    }
    public String getCourseGrade()
    {
        return courseGrade;
    }
    public String getExcludeFlag()
    {
        return excludeFlag;
    }

    /*************************************************************
    * Method: set[private_var]()                                 *
    * Purpose: Provide the ability to set private Course         *
    *          variables                                         *
```

```
68      * Parameters:                                                 *
69      *   String/Int: [private_var]:        value to be set         *
70      * Returns:                             N/A                    *
71      ************************************************************/
72      public void setCreditCount(int creditCount)
73      {
74          this.creditCount = creditCount;
75      }
76      public void setTermTaken(String termTaken) throws ParseException
77      {
78          // Set term taken for raw then find the word value
79          if(termTaken.equals("01"))
80          {
81              this.termTakenRaw = "01";
82              this.termTaken = "Winter";
83          }
84          else if(termTaken.equals("02"))
85          {
86              this.termTakenRaw = "02";
87              this.termTaken = "Spring";
88          }
89          else if(termTaken.equals("03"))
90          {
91              this.termTakenRaw = "03";
92              this.termTaken = "Summer";
93          }
94          else if(termTaken.equals("04"))
95          {
96              this.termTakenRaw = "04";
97              this.termTaken = "Fall";
98          }
99          // Throw flag to show data passed is incorrect
100         else {throw new ParseException("Term is not correct!", -1);}
101     }
102     public void setYearTaken(String yearTaken)
103     {
104         this.yearTaken = yearTaken;
105     }
106     public void setCourseNumber(String courseNumber)
107     {
108         this.courseNumber = courseNumber;
109     }
110     public void setCourseTitle(String courseTitle)
111     {
112         this.courseTitle = courseTitle;
113     }
114     public void setCourseGrade(String courseGrade) throws ParseException
115     {
116         // Cheack to see if matches grading scale
117         if("ABCDFICRAUB+C+D+A-B-C-".contains(courseGrade.toUpperCase()))
118             this.courseGrade = courseGrade;
119         else
120             throw new ParseException("Grade is not acceptable!", -1);
121     }
122     public void setExcludeFlag(String excludeFlag) throws ParseException
123     {
124         if(excludeFlag.equals("Y") || excludeFlag.equals("y") ||
125            excludeFlag.equals("N") || excludeFlag.equals("n"))
126         {
127             this.excludeFlag = excludeFlag;
128         }
129         // Throw flag to show data passed is incorrect
130         else {throw new ParseException("Exclude flag is not correct!", -1);}
131     }
132
133     /************************************************************
134     * Method: compareTo()                                        *
135     * Purpose: to compare classes                                *
```

```
136     * Parameters:                                                  *
137     *   Course:                  Course to be compared             *
138     * Returns: int:             -1 is, compare in is less          *
139     *                            0 is compare in is ==             *
140     *                            1 is compare is greater             *
141     ***************************************************************/
142     public int compareTo(Course compareIn)
143     {
144         return compareIn.getCourseNumber().compareToIgnoreCase(this.getCourseNumber());
145     }
146 }
```