Buggy Hash

The following classes may contain a bug in one of its methods. Identify those errors and briefly explain why they are incorrect and in which situations would the bug cause problems.

(a)
```
1   class Timezone {
2       String timeZone; // "PST", "EST" etc.
3       boolean dayLight;
4       String location;
5       ...
6       public  int currentTime() {
7           // return the current time in that time zone
8       }
9       public int hashCode() {
10          return currentTime();
11      }
12      public boolean equals(Object o) {
13          Timezone tz = (Timezone) o;
14          return tz.timeZone.equals(timeZone);
15      }
16  }
```

(b)
```
1   class Course {
2       int courseCode;
3       int yearOffered;
4       String[] staff;
5       ...
6       public int hashCode() {
7           return yearOffered + courseCode;
8       }
9       public boolean equals(Object o) {
10          Course c = (Course) o;
11          return c.courseCode == courseCode;
12      }
13  }
```