

# **Introduction to Artificial Intelligence**

## **CSE 462**

### **Assignment 4**

### **Deadline: 02-01-2018**

In this homework you will design a prolog program that will solve the following scheduling problem. A company owns 3 buses and employs 5 drivers. Only one driver can drive any bus on a single day, and each driver cannot work for more than two consecutive days in a week. The company uses all buses every day.

The task is to make a weekly schedule (7 days) denoting the drivers assigned to each of the three buses.

The schedule predicate will have three arguments. The first one will be the list of drivers, then the list of buses and the last one will be the schedule created.

Install swi-prolog package and use swipl to compile and run your program. Your predicate will be queried as follows:

```
?_ schedule([Monday,Tuesday,Wednesday,Thursday,Friday,Saturday,Sunday],X).  
X=[Monday,d1,b2,d3,b1,d2,b3,Tuesday,...];
```

where d1 denotes driver 1 and b2 denotes bus 2. "Monday,d1,b2,d3,b1,d2,b3" denotes which busses and drivers are assigned to Monday.