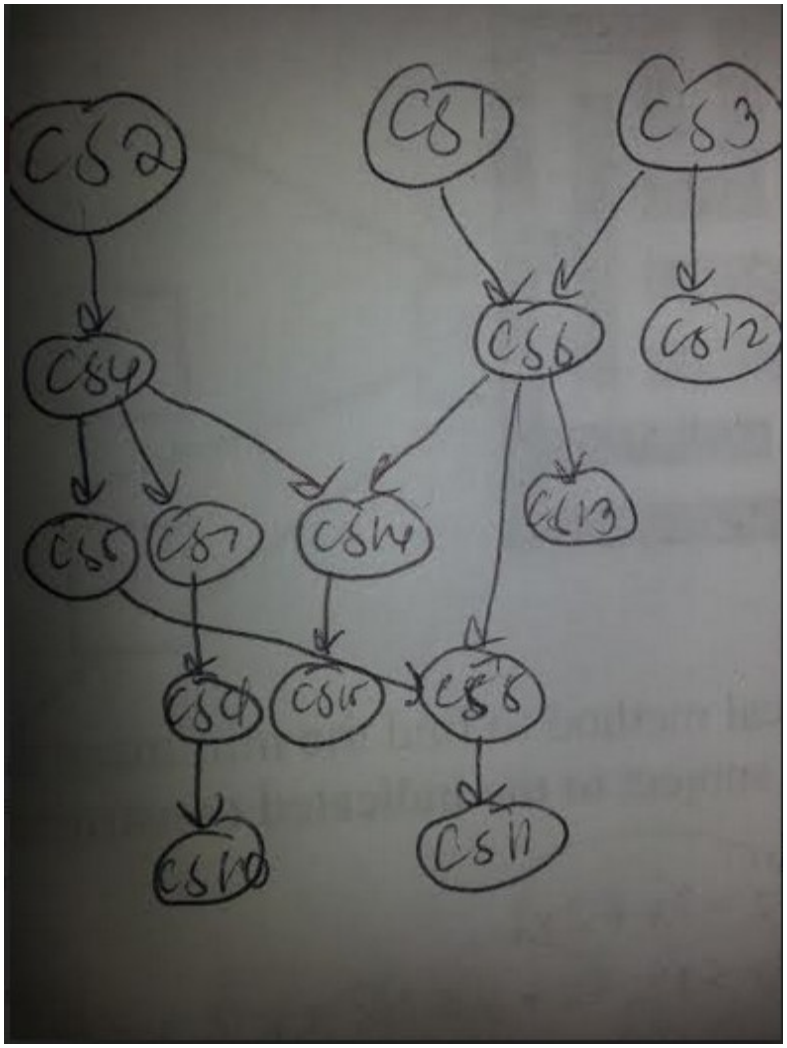

I used breadth first search.

```
BFS(Graph G, vertex v)
        Queue Q
        bool visited[n] = false
        int distance[n] = 0
        set the distance values for 1 2 and 3 to 1.
        enqueue values 1 2 and 3
        int semesters = 1;
        while q is not empty
                currentNode= q.front
                pop the front value
                visited[currentNode] = true;
                for each child of the current node
                        if the current child hasn't been visited yet
                                distance[child] = distance[current.Node] + 1
                                if child distance is greater than number of semesters
                                        set semesters to the child distance value
                                push the child onto the stack
        print out semesters
```

The answer to this problem should be 5 semesters