

CS4632 Spring 2016  
Object Oriented Modeling and Simulation

You are required to submit a short one or two-paragraph description of your project proposal.

Projects will 100% replacement of the Final Exam. Students are also required to present a poster in the Spring Student Poster Presentation event (organized by the Student ACM Chapter and by the CS Department).

Project list:

1. Write a detailed comparison of the method in this course for developing simulation models, and DEVS (a formalism for simulation).
2. Develop the tanker simulation model (see document).
3. Develop a simulation model for an automobile assembly line. See the documentation in file: "assembly\_plant.pdf".
4. Develop a simulation model of a communication system that uses a simple communication protocol.
5. Extend and enhance the simulation model on Denial of Service, a very common problem in Information Security.
6. Extend and enhance the simulation model of the Routing Facility and Network.
7. Extend and enhance the simulation model of the Train-Gate Crossing.
8. Develop a complete simulation model of a traffic problem.
9. Develop a complete simulation model of Five Philosophers Problem.
10. Develop a complete simulation model of the computer system in Problem 5, on page 361 of the book.
11. Develop a complete simulation model of a system that you observe in the real-world (you need first to provide a short description of the problem).