CS 5420: TECHNIQUES OF SIMULATION

Semester Hours: 3.0
Contact Hours: 3

Coordinator: Hassan Rajaei

Text: Simulation Using Promodel

Author(s): HARRELL, GHOSH, BOWDEN

Year: 2012

SPECIFIC COURSE INFORMATION

Catalog Description:

Principles of simulation and application of simulation languages to both continuous and discrete systems. Prerequisites: MATH 2470 and CS 2020.

Course type: ELECTIVE

SPECIFIC COURSE GOALS

- I can identify application areas of computer simulation such as industry defense, finance, and education.
- I can explain the differences between the types of simulation such as Monte Carlo, VS. Discrete Event, and/or Real-time simulation.
- I can analyze relevant research and communicate my findings

LIST OF TOPICS COVERED

- Introduction (1 week)
- Simulation Basics (2 weeks)
- Stages of Simulation Model Development (2 weeks)
- Abstract Representation Techniques (1 week)
- Random Number Distribution (2 weeks)
- Evaluation of Simulation Modeling (2 weeks)
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- Term Project (4 weeks)