CSCE 4250/5265 Topics in Game Development

Instructor: Ian Parberry  
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Semester: Spring 2019
Time: TR 4:00-5:20pm
Place: NTDP F204
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Course Description:
The class will read and discuss articles from the academic and technical literature on game development and related material from relevant computer science areas.

Draft Schedule
Week 1: Introduction, Video Game Science, Game Dev Research  
Week 2: Homework 1 discussion, Research Methods  
Week 3: Homework 2 presentations  
Week 4: Perlin Noise and its Applications  
Week 5: Procedural Content Generation  
Week 6: Procedural Terrain Generation  
Week 7: Puzzles: Sokoban, The 15-Puzzle  
Week 8: Procedural Quest Generation, Emergent Economies in RPGs  
Week 9: Burning Things Procedurally  
Week 10: Lindenmayer Systems, Wang Tiling  
Week 11: Audio Games, Procedural Ornamentation  
Week 12: TBA  
Week 13: TBA  
Week 14: Final project presentations  
Week 15: Final project presentations

Learning Outcomes
By the end of the course, you will have:
1. Ability to perform a literature search for academic game development articles.  
2. Ability to formulate a game development related project using academic articles.  
3. Ability to devise metrics for measuring the viability of a game development related project.  
4. Experience with writing code for and evaluating those metrics.  
5. Experience with interpreting and pitching the results to a game development team.

Course Requirements
Attendance: Optional except for student presentations which are mandatory for all.  
Exams: None  
Grade: The grade for this class will be on a project, a paper, and a class presentation.

Disability Accommodation
The University of North Texas complies with Section 504 of the 1973 Rehabilitation Act and with the Americans with Disabilities Act of 1990. The University of North Texas provides academic adjustments and auxiliary aids to individuals with disabilities, as defined under the law. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring accommodation, please see the instructor and/or contact the Office of Disability Accommodation at 940-565-4323 during the first week of class.