WANIC 2024 -25

Program Expectations

Video Game Programming – Year One

READING EXPECTATIONS OF THIS CLASS:

This course is not text heavy, however, many materials provided do require a more technical reading level. Students who have difficulty reading may struggle to understand some of the more technical vocabulary used.

WRITING EXPECTATIONS OF THIS CLASS:

Students are expected to have intermediate writing skills, as there will be a component of writing code. Due to this, students who struggle with typing may have more difficulty completing and expanding on assignments. Adding comments and descriptions to files is also a requirement on most assignments.

MATH EXPECTATIONS OF THIS CLASS:

Many different math topics are referenced, and students must have completed Algebra 2 to be accepted into this program. Understanding variables in algebra, how to rearrange terms, and using a coordinate system are all extremely important. We expand that in class looking at vectors, and how affecting physics over time makes simulations work. In addition, many assignments do rely on calculating different math concepts. This program is not for students who are averse to math.

SCIENCE EXPECTATIONS OF THIS CLASS:

When making games, students will learn about physics peripherally. They will also explore how some of the first computers worked electrically. Most of the core science parts of the class are less central to the class, but an interest in physics is always helpful.

HOMEWORK EXPECTATIONS OF THIS CLASS:

All the coursework for this class is intended to be done during class. Lab time is planned in class for every assignment, and students are expected to be self-motivated during this time. The goal is for students to have all the help they need while actively working on their assignments. Any work done outside of class is typically preparatory work, such as reading or reviewing a video in advance of the topic being introduced in the class.

TO BE SUCCESSFUL IN THIS CLASS, THE STUDENT SHOULD BE PREPARED TO:

Use class time wisely and ask questions if stuck on a problem for too long or something doesn't make sense to them. Be willing to research new concepts on their own to expand their knowledge;, projects involve researching and adding their own unique ideas. Collaborate with other students on programming and game projects and learn to use tools, schedules, and documentation to work together.

Applying and practicing skills is key to showcasing your competency. Embrace an attendance policy reflecting the norms of business and industry, where you take on the role of an employee or professional. Commit to full daily attendance and active participation for optimal learning and productivity. Dive into the program's array of hands-on activities necessary for earning credit.

WANIC 2024 -25

Program Expectations

Video Game Programming – Year Two

READING EXPECTATIONS OF THIS CLASS:

Students are expected to read and learn from technical documentation, programming tutorials, and assignment instructions, and read and comprehend code written by themselves and others.

WRITING EXPECTATIONS OF THIS CLASS:

Students are expected to write clear and concise documentation for each file and function they submit for their programming assignments, all with proper grammar and spelling.

MATH EXPECTATIONS OF THIS CLASS:

Students are expected to learn and apply concepts in several areas of intermediate mathematics, including trigonometry, vector and matrix algebra, and basic physics. This will be done through a combination of written problem sets and programming labs.

SCIENCE EXPECTATIONS OF THIS CLASS:

An understanding of basic physics, including concepts such as position, velocity, and acceleration, is necessary for some of the game/simulation programming projects.

HOMEWORK EXPECTATIONS OF THIS CLASS:

All the coursework for this class is intended to be done during class. Lab time is planned in class for every assignment, and students are expected to be self-motivated during this time. The goal is for students to have all the help they need while they are actively working on their assignments. Any work done outside of class is typically preparatory work, such as reading or reviewing a video in advance of the topic being introduced in the class.

TO BE SUCCESSFUL IN THIS CLASS, THE STUDENT SHOULD BE PREPARED TO:

Learn and work independently and in groups on highly technical projects involving object-oriented programming languages. An understanding of structures, pointers, and memory allocation is vital for getting the most out of these projects. These concepts will be reviewed, but prior knowledge with these concepts is highly recommended. Students who have successfully completed this course's prerequisite should already have this knowledge.

Applying and practicing skills is key to showcasing your competency. Embrace an attendance policy reflecting the norms of business and industry, where you take on the role of an employee or professional. Commit to full daily attendance and active participation for optimal learning and productivity. Dive into the program's array of hands-on activities necessary for earning credit.

ADDITIONAL INFORMATION:

- Prerequisite – Successful completion of DigiPen Video Game Programming Year 1