CS409/809: Interactive Entertainment Software
Fall, 2024
Description of Final Examination
Updated December 13, 2024

Summary: The final examination will be written in-person on Monday, December 16, 2024 from 9:00 am to 12:00 noon.

Details:

It is a 180-minute exam, set out of 180 marks. Approximately one third of the emphasis will be on material covered in lectures up to and including October 9, 2024 (relevant to the midterm examination). Two thirds of the emphasis on the final examination will be on materials covered after October 9, 2024.

Important information that is printed on the cover of the examination (you should understand it now):

- The exam consists of six (6) questions, of which you should do any five (5) questions. You must eliminate one complete question; there are no bonus marks for doing an extra question. Give your answers in handwriting directly on the question sheets.

- This is a closed book exam. You must not consult any written or internet sources and you must not obtain any help from any person during the examination period. You must maintain the confidentiality of your answers.

- Do not ask for help concerning the meaning of questions during the exam. If in doubt about the meaning of a question, state an assumption and answer to the best of your ability. The assumption should be consistent with the information given in the question and resolve a matter in reasonable doubt. If you have any questions about procedures, consult the instructor.

Other information:

- Each question is given on one or two pages. Pages are 8.5 inches by 11 inches (standard paper size). A question may have several parts, such that the sum of the marks for the parts totals 36, e.g., three parts for 12 marks each, or six parts for 6 marks each.
- You will be given a sample OpenGL program and a formula sheet.
- You should bring a **calculator** that can compute square roots.

Emphasis:

The emphasis will be on material covered in detail during lectures. The in-class handouts ("Topic"s on the website) are highly relevant. Your lecture notes are the best guide to the topics that will be emphasized on the exam. The online notes often present the same material in more detail or more clearly.

The Notes section of the website provides an up-to-date listing of materials that are relevant to examinations. If a topic is marked as "Relevant to midterm examination" it is also relevant to the final examination.

With respect to Tutorial 10, the portion from the beginning to the word "Exercises" is relevant to the final examination. The variations on height maps covered in the exercises are not relevant to the final examination.

Types of Questions

- The questions will be similar to the midterm questions but with less emphasis on the programming assignments that you did.
- There are sample questions available on the course website. Make sure to refresh your browser regularly in case there are additional questions. Unlike in the sample questions, there will be no questions involving simply retrieving facts learned during the course.
- **Problem Solving Questions**: The majority of questions will require problem solving, i.e., make use of the information from the course to do something.
- Questions involving terminology or concepts will typically ask you to demonstrate that you understand the ideas by applying them to a novel situation, one of our assignments, or a real or imaginary computer game.
- A question may be of the format "Explain step by step with an example" or "Explain step by step for [some given example]" or "Explain with a diagram." For these questions, you can use paragraph form or point form, and you can supplement your answers with any number of diagrams.
- Algorithms are typically required rather than programs, so if you forget the exact name or parameters make sure the intent is clear. Questions often say "Give code or detailed pseudocode …."
- ~~Among pathfinding algorithms, A* is the most important one for the exam.~~ PATHFINDING IS NOT RELEVANT!
- For the physics of Motion in a 3D World (Section 4.1 of the notes), it is sufficient to be able to use the formulas. You do not have to be able to be able to do all the types of conversions between angles and vectors. I marked individual subsections as relevant or not.