



EMC-122

Computer Graphics

Programmmin

Instructor: Mark Daniel G. Dacer
BUKSU - COT - I.T Department



Mark Daniel Dacer

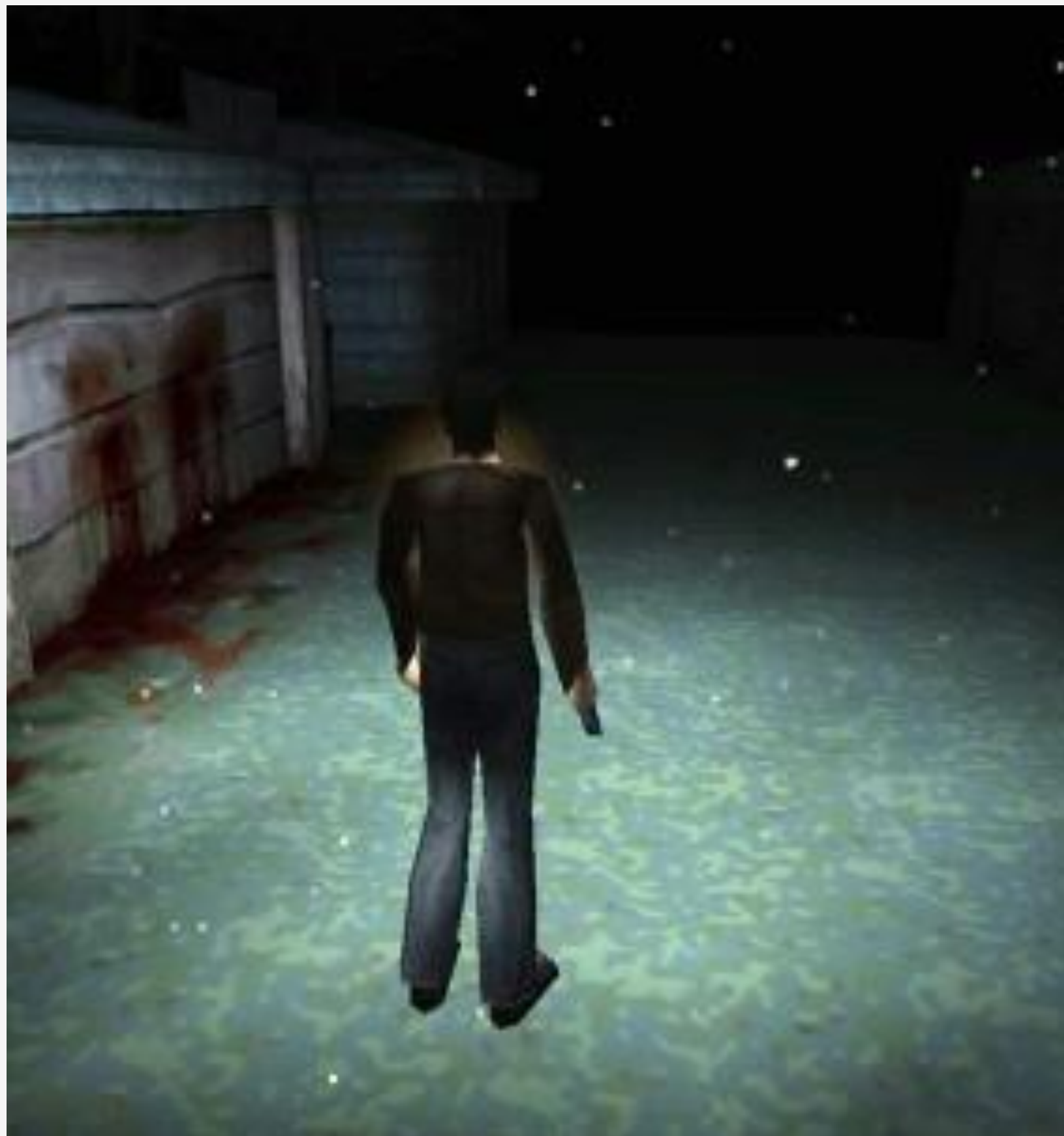
- BSIT Graduate (2019), currently studying MSIT.
- GitHub: <https://github.com/Jaeger47>
- Folio: <https://p0mf.netlify.app/articles/god.html>
- Email: markdacer@buku.edu.ph



Outline

Computer
graphics
background

About the course



Computer Graphics and Image Processing

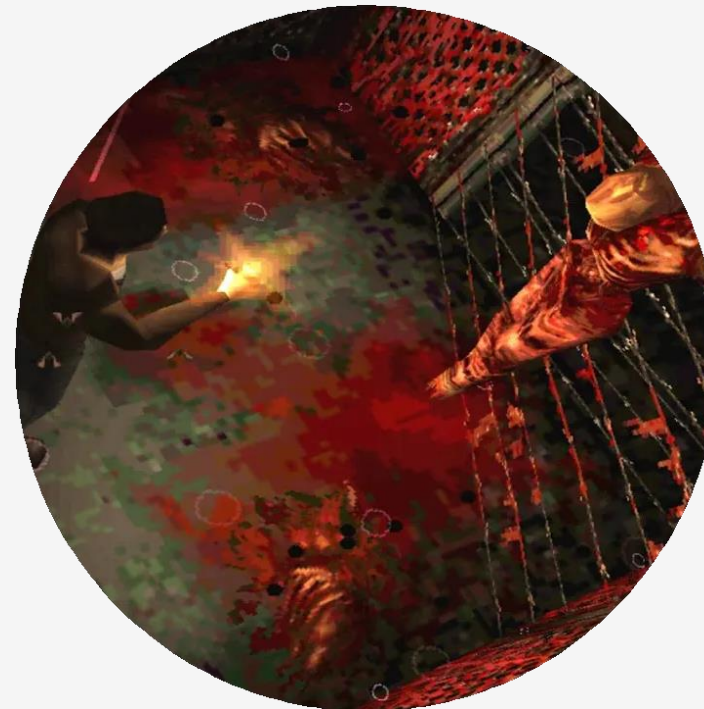
- Computer Graphics -- create pictures and images, synthesize them on the basis of some description, or model in a computer
- Image Processing -- improve or alter images that were created elsewhere

Computer Graphics Applications



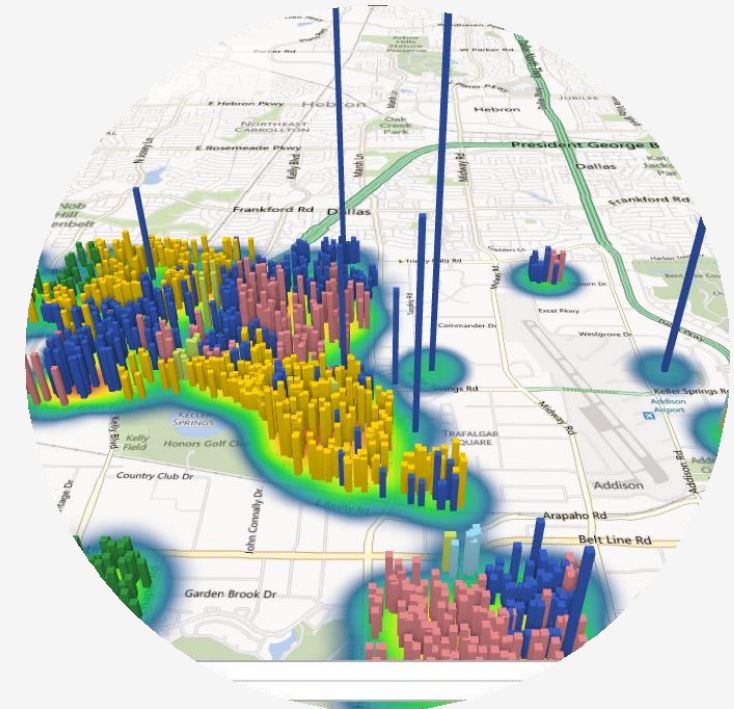
Art, Entertainment, and publishing

movie production, animation,
special effects



Video Games

latest computer graphics
technologies are rapidly
incorporated into latest video
games



Scientific Analysis and Visualization

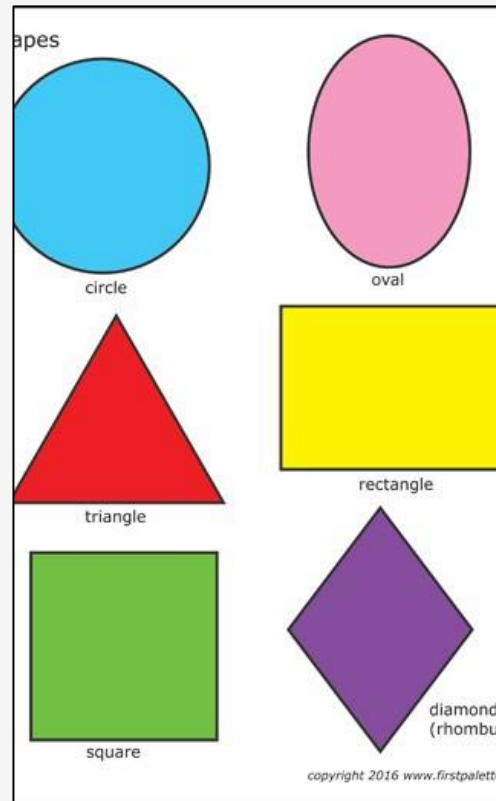
presenting scientific
information in the right way let
you gain new insights into the
investigating process

Course description

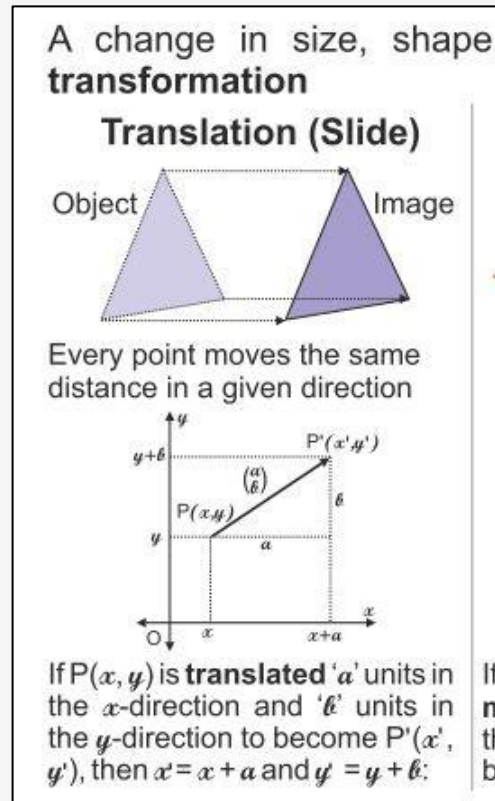
In this course, students will be introduced to computer graphics and its application to the production of 3D graphics through a top-down approach of applications of the mathematical concepts. Topics included in this course are the requisite review of needed math concepts, graphics transformations, rendering of primitive geometries, shading and illumination, and use of OpenGL.



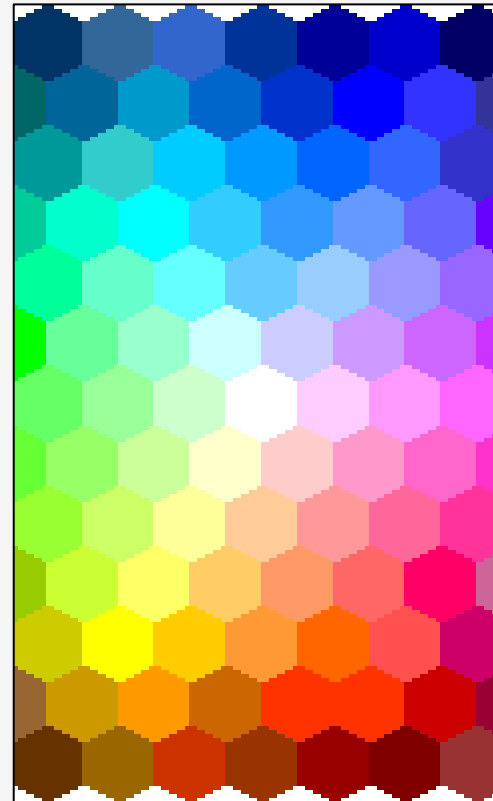
Course Outline



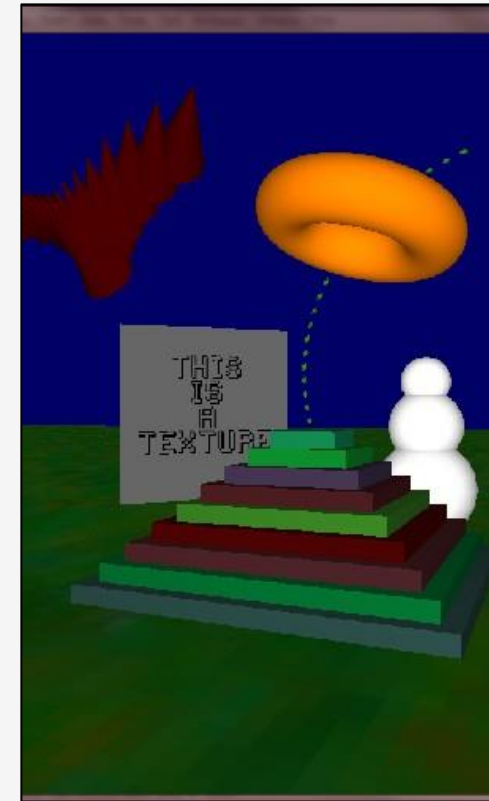
Basic
Primitives



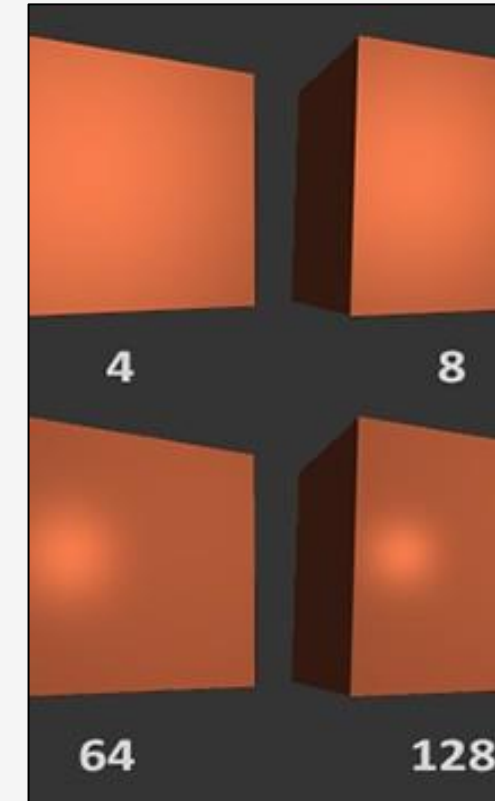
Transformations



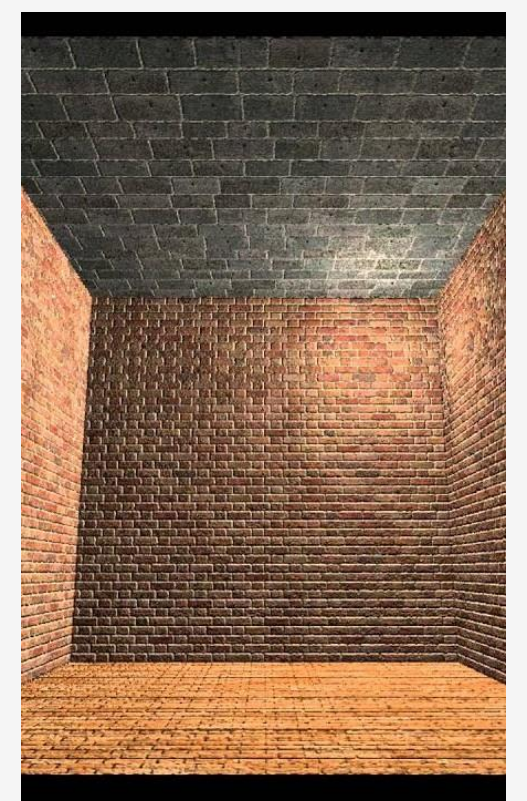
Colour



Going 3D



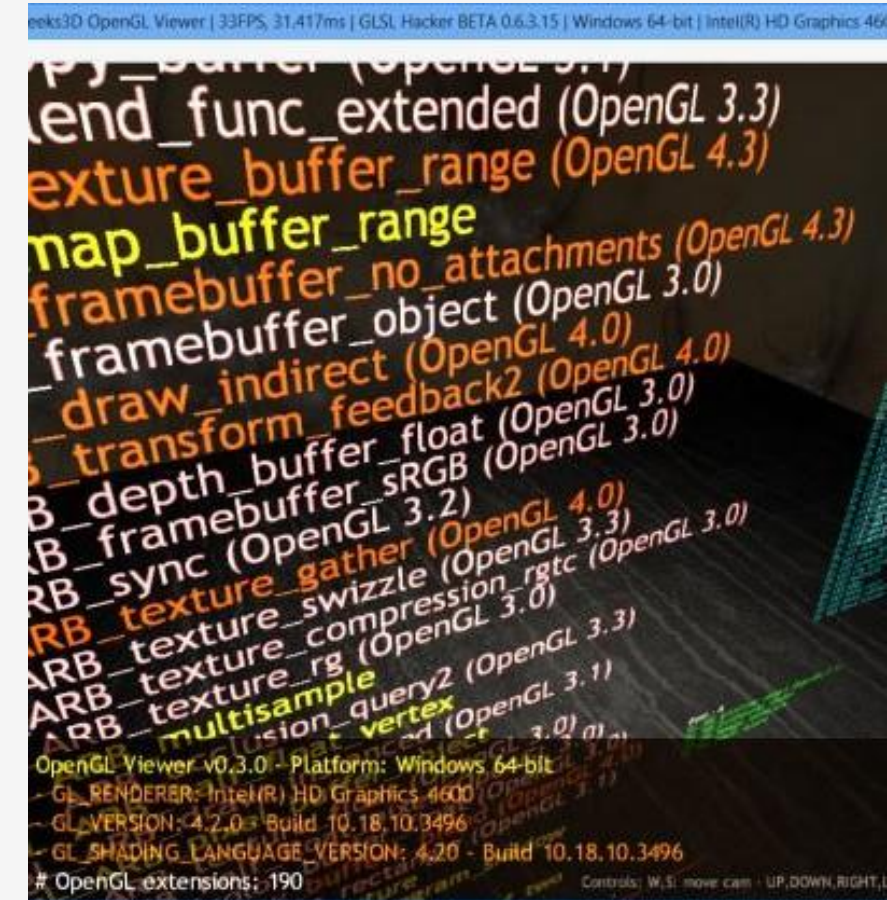
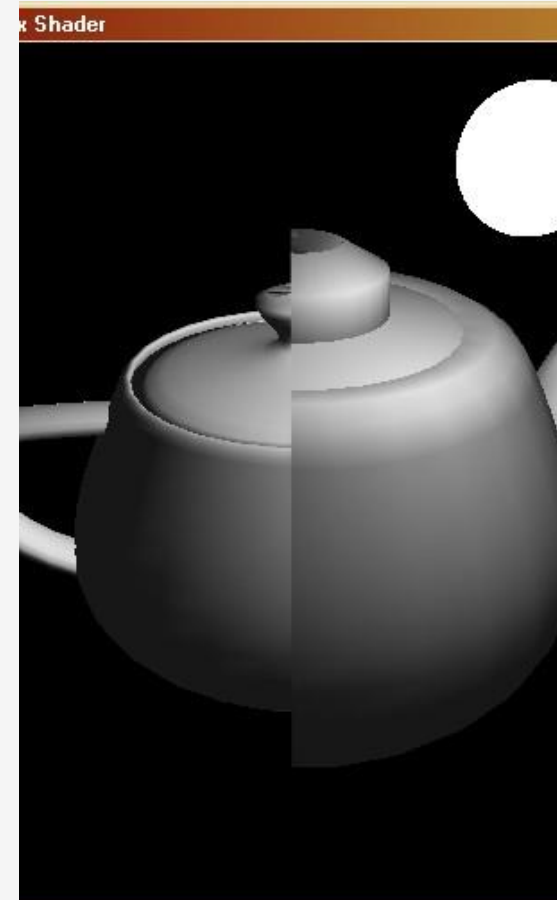
Lightning



Texturing

What will I learn from this course?

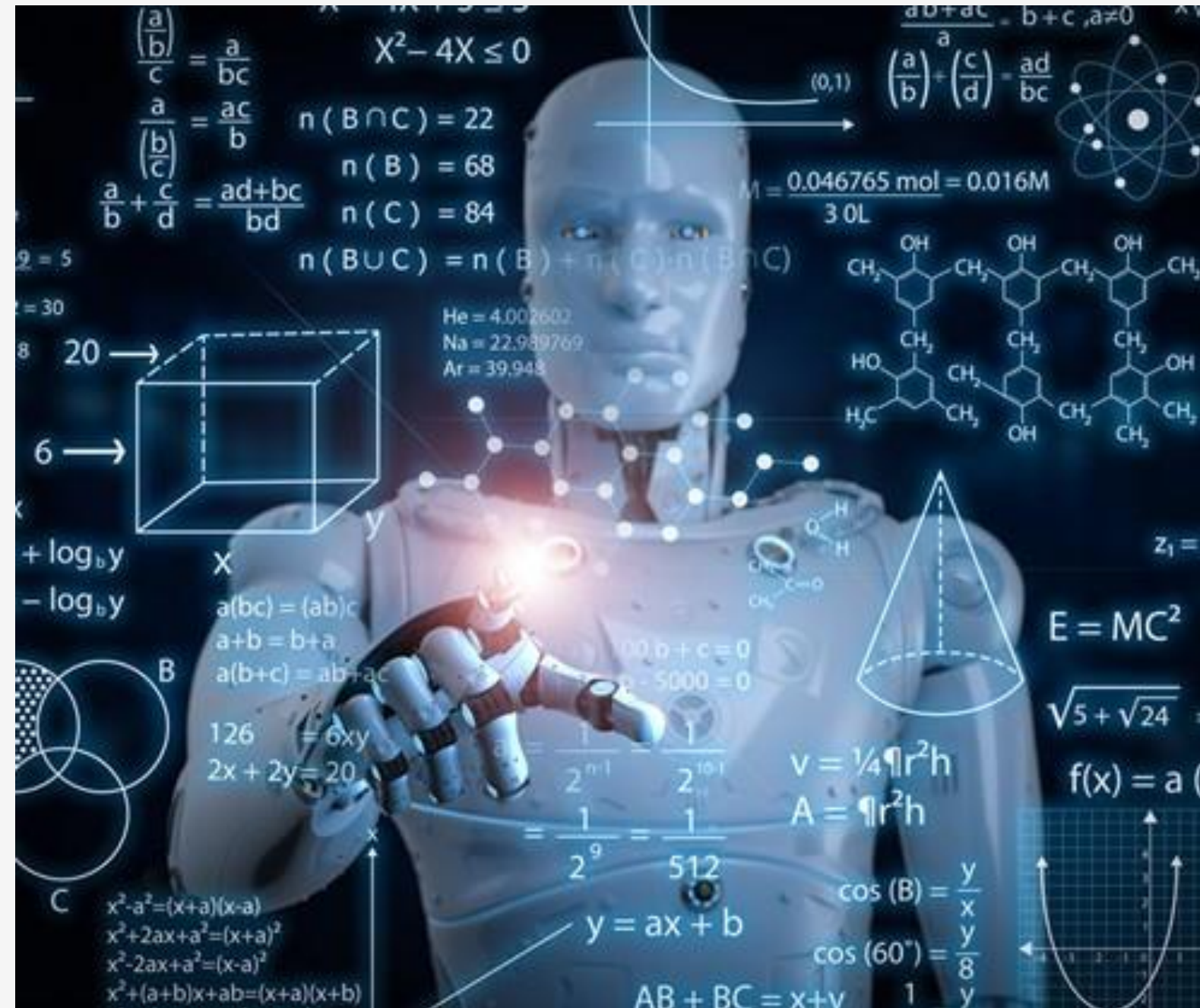
- A basic understanding of graphics hardware/software technology – algorithms and jargons
- Learn how to use OpenGL to write 2D/3D drawing programs



Prerequisites

Familiarity with:

- Basic concepts in linear algebra (e.g., vectors, matrices, matrix multiplication)
- (Functional) programming - One of the following imperative languages:
 - C / C++



Grading System

Major Task - 60%

Mid & Final Term
Exam & Projects

Class Standing - 40%

Graded f2f/online activities and outputs
corresponding to the enabling course
outcomes.



Deadlines

- Online Assignment - 3 days allowance after deadline(with deductions)
- F2F Activity - If not done on class, it will be collected next meeting (with deductions)
- Projects - 1 week allowance after deadline (with deductions)
- If not pass due to valid reason need letter/medical certificate/OSS Form (no deduction)

Consultations



You can ask for consultation on Facebook messenger, Email, or Faculty.

Preferably on time: 8:00AM - 5:00PM
(Monday - Friday)

I can respond outside of consultations schedule but can't respond immediately on time.

After consultation you will fill up a form/document for documentation purposes

Any Questions?

Thank you!

Concerns?