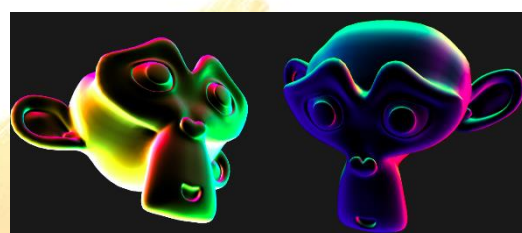
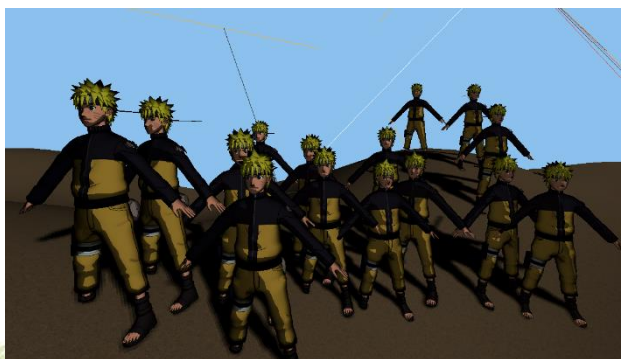




VR Adventure (TECS2361)

Introduction

This course enables students to learn virtual reality (VR) programming in a fun and motivated environment. Student will pick up fundamental mathematical concepts in 3D computer graphics and apply the knowledge to develop a VR application. Participants are encouraged to be more creative and challenge themselves through designing and developing the VR application.



Programme Type / Level

Intermediate Course in Virtual Reality ([Token-required](#))

Instructor(s)

Dr Martin CHOY Man Ting
(Lecturer, Department of Computer Science, Hong Kong Baptist University)

Pre-requisites

- Algebra
- Systems of linear equations

Target Participants



- S1 – S6 HKAGE student members
- Class size: 30

Medium of Instruction



English with English handouts

Certificate



E-Certificate will be awarded to participants who have:

- ❖ Attended **at least 5 sessions; AND**
- ❖ Completed all the assignments with satisfactory performance.

Intended Learning Outcomes



- Upon completion of the programme, participants should be able to:
1. Describe the fundamental mathematical concepts in 3D graphics application development;
 2. Describe the features and programming methods to create 3D graphics for development;
 3. Design and create 3D graphics and VR applications.

Screening



Please answer the screening questions in the online application form.
*The screening questions are designed to help the applicant understands the course level and the course content. The question must be answered by the student applicant and it can only be attempted once. The answer cannot be changed once the application is submitted. Selection is based on students' performance in answering the questions. **Only students who can demonstrate motivation and the basic knowledge of Algebra and programming languages in the screening questions can be enrolled in the programme.**

Application Deadline **11 May 2020, 12:00 n.n.**

Application Result
Release Date

22 May 2020

Student members may withdraw from the programme on or before the deadline. Otherwise, the token will be deducted.

Schedule



Session	Date	Time	Venue (HKBU)
1	3 Aug	2:00 p.m. – 5:00 p.m.	FSC901DC, Fong Shu Chuen Library, Ho Sin Hang Campus, Hong Kong Baptist University (map) Online Lecture
2	5 Aug	2:00 p.m. – 5:00 p.m.	
3	7 Aug	2:00 p.m. – 5:00 p.m.	
4	10 Aug	2:00 p.m. – 5:00 p.m.	
5	12 Aug	2:00 p.m. – 5:00 p.m.	
6	14 Aug	2:00 p.m. – 5:00 p.m.	

Remarks:

One or two articles will be assigned as reading for each session. Students are expected to study the articles before attending the lessons.

Sample note

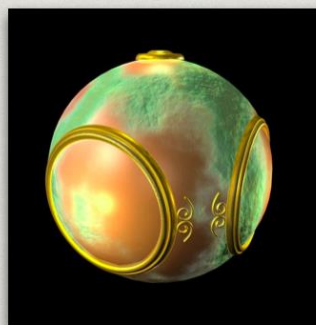
Environment Mapping

- Texture mapping used to show the **reflection of the surrounding environment** on the 3D scene to be represented.
- Cube Mapping
 - We can form a **cube map texture** by defining **six 2D texture maps** that correspond to the sides of a box



Normal Mapping

- With **normal mapping**, we use textures to encode the **normals** and use them during rasterization to compute **per-fragment lighting**.
- We refer to these textures with the name of **normal maps**.



Enquiries



For enquiries, please contact us at 3940 0101 after language selection, press "1".