# DM2199 Computer Graphics Project

## Project objectives

- Conceptualize and code in a 3D environment
- Work in a team

## Project theme: Space

Propose an interactive Space scene

## Location

N1.507/N.508 (ignore anything that states M.615)
ID: n1507
Password: 7ocatioN

## Supervisors

| Name | Email | Phone |
| --- | --- | --- |
| Tang Wen Sheng | tang_wen_sheng@nyp.edu.sg | 6550-1770 |
| Sim Tze Jan | sim_tze_jan@nyp.edu.sg | 6550-1838 |
| Victor Wee | victor_wee@nyp.edu.sg | 6550-1859 |
| Eric Sng | eric_sng@nyp.edu.sg | 6550-1635 |
| Alex Toh | alex_toh@nyp.edu.sg | 6550-1814 |

## Ground rules

- 9am to 6pm, 15 Feb to 4 Mar 2016
- No food and drinks in lab
- Presentation on Fri, 4 Mar
- Arrange to meet your supervisor twice per week
- Version control must be used
- Hold daily SCRUM meetings of 10-15mins
- When in doubt, seek advice
- SP training: Thurs, 11 Feb, 12-3pm at M.615

## Proposal

Meet your supervisor by Monday, 15 Feb 2016 with your proposal

## Tools

Visual Studio 2013, SmartGIT, teamwork.com, Maya, Microsoft Office

# Requirements

● Determine the dimension of the scene e.g 1000 x 1000 x 1000
● Plan and design the space scene layout
● Plan the weekly task list, on teamwork.com (invite supervisor and Mr Tang)
● Decide on the activities in the scene (at least 1 difficult and 2 easy per person), examples:
  ○ Shooting asteroid or other ships
  ○ Mining minerals
  ○ Talking with aliens
  ○ Planting flag
  ○ Building space houses
  ○ Your own idea!
● Design up to 10 NPC characters (who do some random activities)
● Design 3 stories or scenarios to "play", examples:
  ○ Space race
  ○ Conquer and plant flag on moon
  ○ Build and launch a rocket (a.k.a. KSP)
  ○ Explore the planet
● Decide what character to play as: human, alien, robot, rover
● All Computer Graphics elements should be in (Light, camera, texture, skybox, controls, models, animations, text, etc.)
● Implement the project based on the plan
● Conduct a playtest, by inviting 10 students from other teams to test your game
● Proper Doxygen documentation and teamwork.com gantt chart and project report (in powerpoint)

# Marking criteria

| Assessment item | Remarks | Component marks |
|---|---|---|
| [Marks given by supervisors] | | [20] |
| Proposal | Week 0 | 5 |
| Progress check 1 | Week 1 | 5 |
| Progress check 2 | Week 2 | 5 |
| Progress check 3 | Week 3 | 5 |
| | | |
| [Marks given over 3 weeks] | | [15] |
| Use of version control | Random checks | 5 |

| | | |
|---|---|---|
| Use of SCRUM | Daily / random checks | 5 |
| Project management | teamwork.com and gantt chart | 5 |
| | | |
| [Marks given on playtest] | Tuesday, 1 Mar 2016 | [5] |
| Conduct a playtest | 10 playtesters from other teams | 5 |
| | | |
| [Marks given based on submission] | Thursday, 3 Mar 2016 | [30] |
| Code & coding practice | | 10 |
| Features | | 20 |
| | | |
| [Marks given on final day] | Friday, 4 Mar 2016 | [30] |
| Final presentation & demo | Video, powerpoint, demo and Q&A | 30 |
| | | |
| Bonus: User interface | | Up to +5 |
| Bonus: Audio (sounds, music) | | Up to +5 |
| | | |
| Penalty: improper submission | | Up to -20 |

# Guidelines

Week 0: Proposal and design of activities, scenarios, layout
Week 1: Scene layout with texture, skybox, OBJ and characters
Week 2: Activities, scenarios and UI
Week 3: Testing and polishing
Planning on following week tasks to be done every Friday

# Presentation (15 mins)

1. Video
2. Powerpoint
3. Demo
4. Q&A

# Submission

1. Video (< 1min) & 3 best screenshots
2. Project with source code, shaders, OBJ & images
3. Executable (Release) folder
4. Powerpoint with features, breakdown of tasklist and gantt chart
5. Documentation with Doxygen
6. Submission size: 100MB
7. Submission dateline: 2359, 3 Mar 2016, Thursday