Computer Graphics Programming Assignment Readme

1. **Due Date**
   - The due date of an assignment is specified in the assignment document.
   - Students are advised to start working on the assignment early because the due date is strictly enforced.

2. **Submission Materials**
   - Each team should submit a report and the program.
   - Report
     - ☐ Clearly explain the important issues.
     - ☐ Do not include the source code in the report.
     - ☐ A report should include the information described below. The details of the report can change depending on the assignments.
     - ☐ Team name and the names, departments, student IDs, hemos IDs of team members
     - ☐ Functionality of the program
     - ☐ Programming environment: Visual Studio, OpenGL, GLSL versions, etc.
     - ☐ Design and implementation of the program: Overall structure of the program, algorithm, data structures, etc.
     - ☐ Other information that can help TA better understand the program
     - ☐ Brief explanation of how to run the program: For example, if your program has a menu or requires a data file, you should explain how to use the menu or how to load a data file.
     - ☐ Examples: Capture screenshots of the program and include them in the report with brief explanations.
     - ☐ Discussion: Discuss the problems you have faced when doing the assignment and how you have resolved them.
     - ☐ Conclusion: Summarize what you have learned through the assignment
     - ☐ Improvement directions: Discuss possible improvements of your program, e.g., additional features and acceleration methods to speed up your program.
     - ☐ **References: Provide clear citation information if you have referred to other sources, such as internet. It is okay to refer and use program codes from other sources. But in that case, you have to provide clear citation information. Otherwise, it can be considered as cheating.**
   - Program
     - ☐ Programs should be developed using MS Visual C++ with OpenGL and GLSL in Windows environment. (GLM library may be used for matrix and quaternion operations, etc.
       Link : https://glm.g-truc.net/0.9.9/index.html)
     - ☐ Visual Studio 2017 should be used for developing the program. (Currently Microsoft provides Visual Studio 2017 for free.)

☐ Versions of OpenGL and GLSL should be higher than 4.0, respectively.

☐ Submit the entire VC++ program directory, including the source code (*.cpp, *.h) and VC++ workspace or project files, so that TA can compile the source code.

☐ Necessary LIB and DLL files must be included in the project directory. The files and library directories included in the program should be specified using relative directory paths, so that TA can compile the source codes without additional setup.

☐ **You are strongly recommended to use the software development environment described above. If TA cannot compile and run your program, you may have some penalty in the score.**

☐ **Include a ReadMe.txt file that briefly describes the directories and files of the source code. If keyboard input is used, provide information for command keys.**

3. How to Submit

- Submit the report and program using team project menu at LMS.
- Compress your report and program into one zip file for submission.
- MS Word file (docx) is recommended for your report.
- Before compressing the source code, remove unnecessary temporary files by running the "clean" operation in the "Build" menu of MS VC++.
- If you miss a deadline, email the assignment to TA.

4. Scoring

- Functionality of the Program (60% of the total)
  - ☐ Does the program work properly satisfying all the requirements?
  - ☐ TA will run the program to check and score the functionality.
  - ☐ TA will compile the source code with the workspace or project file, and run the program.
- Design and Implementation of the Program (30% of the total)
  - ☐ Is the program well designed to meet all the requirements?
  - ☐ Are OpenGL and GLSL properly used to implement the program design?
  - ☐ TA will refer to the report to understand the program design and implementation.
  - ☐ The description in the report will be confirmed by checking the source code.
- Form and Organization of the Report, ReadMe.txt file (10% of the total)
  - ☐ Is the report easy to read and well documented?
  - ☐ The organization and the clarity of the explanations will be main factors for scoring.
  - ☐ Document format will also be considered.
  - ☐ Is the ReadMe.txt file well-prepared?
- Bonus Points (Maximum 10% of the total)
  - ☐ Extra points can be obtained when you implement creative or unique features in addition to the requirements.

□ Creativity and uniqueness of the additional features will be considered for scoring.

■ Penalty

□ If you submit the assignment after the due date, 10% of your earned score will be deducted.

□ For each additional 24 hours delay, additional 10% will be deducted.

□ Delay less than 24 hours: 10% penalty, less than 48 hours: 20% penalty, more than 10 days: no points.

□ If the main parts of your program turns out to be a copy or simple modification of other's work or internet material, no points will be given.

□ In the case of a copied assignment, additional penalty would be imposed according to the department policy.

5. **Additional Information**

■ You may encounter many issues regarding the details of the program. You should include them in the report with your solutions and explain why you have taken those specific solutions.

■ You can have extra points for creative ideas and additional features you have implemented. So clearly mention the ideas and features in the report.

■ After the submission due, you cannot submit your assignment materials through LMS. In that case, you should send the materials to TA by an email. The penalty for a late submission will be determined using the time when the email is sent.

■ If you have any question about the assignment, post it onto the Q&A board at LMS.

■ **Only the team leader can upload the assignment file onto LMS. If one of the team members cannot upload the file, she or he is not the team leader, and then the other member should try. Team leader is only for LMS file upload and doesn't mean anything else (that is, not related to any score at all).**