

Lab Performance Test 2 Syllabus

Course Outcome

CO4: Understand the practical implementation of modeling, rendering, viewing of objects in 2D and 3D.

Marks Distribution (**Partial Marking will be given for all questions**):

Lab Class	Questions	Question Types	Time	Marks	CO
Lab Class 2 + Lab Class 3	Q1	Easy Question from 1. Shader 2. Texture	10 min	40%	CO4
	Q2	Easy Question from 1. Transformations 2. Coordinate Systems	10 min	30%	
	Q3	Hard Question from 1. Shader 2. Texture 3. Transformations 4. Coordinate Systems	25 min	30%	

Reading Assignment:

Book: <https://learnopengl.com/>

Code Repository:

https://github.com/JoeyDeVries/LearnOpenGL/tree/master/src/1.getting_started

Class Repository:

To be added.

Chapter Name	Code Example
Shader (Link)	Easy: 3.1, 3.2, 3.3 Hard: 3.4, 3.5, 3.6
Textures (Link)	Easy: 4.1, 4.2 Hard: 4.3, 4.4, 4.5, 4.6
Transformations (Link)	Easy: 5.1 Hard: 5.2, 5.3
Coordinate Systems (Link)	Easy: 6.1, 6.2, 6.3 Hard: 6.4

Sample Questions:

1. **Easy Question:** Show an OpenGL program which will show a texture (upside down) in a triangle.
2. **Easy Question:** Show an OpenGL program which will show a 3d cube at location (2,5,-15) and is rotated by 90 degree clockwise.
3. **Hard Question:** Show an OpenGL Program which will show two different 2d squares with blue and green color are always rotating and are at different locations.

Regarding Extra Time:

If someone takes more than 10 minutes to submit his answer, then there will be mark penalty and following chart will be used to evaluate answers (Suppose exam starts at 9:30 AM):

	100% Marks	70% Marks	0% Marks
Q1	10 min (Submit at or before 9:40 AM)	10 min (Submit at or before 9:50 AM)	Submit after 09:50 AM
Q2	10 min (Submit at or before 9:50 AM)	10 min (Submit at or before 10:00 AM)	Submit after 10:00 AM
Q3	25 min (Submit at or before 10:15 AM)	25 min (Submit at or before 10:25 AM)	Submit after 10:25 AM

Questions:

Every student will be given different question sets based on Roll number. Link to Google form will be given 1 minute before the lab test. Students will have to submit their answers to Google Classroom.

Upload Instructions:

1. **Separate Folders:** Create separate folders (also for Q2a and Q2b) for each question when uploading.
2. **Roll Number+Questions:** Add your Roll Number and paste given Questions to program files.
3. **Snapshots:** Take separate snapshots of the output window which shows output. Do not fabricate the snapshots. If found, the student will get punished severely.

4. Please rename your file/files with this format: [Lab Performance Test No]_[Roll Number]_[Question No] (Example: LPT1_1703060_Q2a). Upload files to google classroom classwork.

5. Warning:

- a. Do not submit the .exe file. Google Drive may block the file and the zipped folder cannot be downloaded/examined by the examiner.
- b. Do not zip files using winrar or 7zip. Zip files using only the default windows zip file (.zip) feature (Instructions: Right Click on Folder -> Send to -> Compressed (zipped) folder).

Upload Lab Report Instructions:

1. Use this Lab Report Template: [Link](#)
2. Please rename your lab report with this format: [Lab Performance Test No]_[Roll Number]_Lab_Report (Example: LPT1_1703060_Lab_Report). Upload Lab Report to google classroom classwork.
3. Lab Report Preparation:
 - **Question:** Paste your question.
 - **Solution:** Paste contents of main.cpp. Bold out your own code.
 - **Output:** Paste your output snapshot
4. Do not cheat in the lab report. Cheating will cause severe punishments.

Lab Performance Test 1 Syllabus

Course Outcome

CO1: Achieve a basic idea about OpenGL graphics library.
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Marks Distribution (Partial Marking will be given for all questions):

Lab Class	Questions	Question Types	Time	Marks	CO
Lab Class 1	Q1	Easy Question from Hello Window + Hello Triangle	10 min	70%	CO1
	Q2	Hard Question from Hello Window + Hello Triangle	25 min	30%	

Reading Assignment:

Book: <https://learnopengl.com/>

Code Repository:

https://github.com/JoeyDeVries/LearnOpenGL/tree/master/src/1.getting_started

Chapter Name	Code Example
Hello Window (Link)	Easy: 1.1, 1.2
Hello Triangle (Link)	Easy: 2.1 Hard: 2.2, 2.3, 2.4, 2.5

Problem Sets:

2. **Easy Question:** Show an openGL Program which will show a red triangle.
2. **Hard Question:** Show an openGL Program which will show two different triangles with blue and green color.

Regarding Extra Time:

If someone takes more than 10 minutes to submit his answer, then there will be mark penalty and following chart will be used to evaluate answers (Suppose exam starts at 9:30 AM):

	100% Marks	70% Marks	0% Marks
Q1	10 min (Submit at or before 9:40 AM)	10 min (Submit at or before 9:50 AM)	Submit after 09:50 AM
Q2	25 min (Submit at or before 10:05 AM)	25 min (Submit at or before 10:30 AM)	Submit after 10:30 AM

Questions:

Every student will be given different question sets based on Roll number. Link to Google form will be given 1 minute before the lab test. Students will have to submit their answers to Google Classroom.

Upload Instructions:

6. **Separate Folders:** Create separate folders (also for Q2a and Q2b) for each question when uploading.
7. **Roll Number+Questions:** Add your Roll Number and paste given Questions to program files.
8. **Snapshots:** Take separate snapshots of the output window which shows output. Do not fabricate the snapshots. If found, the student will get punished severely.

- 9. Please rename your file/files with this format:** [Lab Performance Test No]_[Roll Number]_[Question No] (Example: LPT1_1703060_Q2a). Upload files to google classroom classwork.

10. Warning:

- c. Do not submit the .exe file. Google Drive may block the file and the zipped folder cannot be downloaded/examined by the examiner.**
- d. Do not zip files using winrar or 7zip. Zip files using only the default windows zip file (.zip) feature (Instructions: Right Click on Folder -> Send to -> Compressed (zipped) folder).**

Upload Lab Report Instructions:

- 5. Use this Lab Report Template: [Link](#)**
- 6. Please rename your lab report with this format:** [Lab Performance Test No]_[Roll Number]_Lab_Report (Example: LPT1_1703060_Lab_Report). Upload Lab Report to google classroom classwork.
- 7. Lab Report Preparation:**
 - **Question:** Paste your question.
 - **Solution:** Paste contents of main.cpp. Bold out your own code.
 - **Output:** Paste your output snapshot
- 8. Do not cheat in the lab report. Cheating will cause severe punishments.**

Tips:

- 1. Rather than writing everything from scratch, just write your codes within existing source code by editing them.**
- 2. Ensure Laptop Battery Backup + Internet**
- 3. Use mingw32-make instead of make if you face any problem.**

Academic Honesty Policy:

- 1. Do not cheat and be honest.**
- 2. Do not share your answers.**
- 3. *If it is found that someone cheated by copying someone's program file/snapshot, then the original author of the files (If identified) will get severe punishments.***

4. *Someone found guilty of cheating will have his/her test score reset and will have to retake all the lab tests on only the hardest question sets.*
5. *If someone is aware of someone's/organized group's cheating, he/she is welcomed to send (anonymous) mail to the teacher. Teacher will keep the sender's identity secret and reward that sender heavily with extra marks.*