

Computer Graphics

Tutorial Organization

Summer Semester 2020

Ludwig-Maximilians-Universität München

Live Policy

You are **not** allowed to record, stream or distribute the session

Mute your microphone

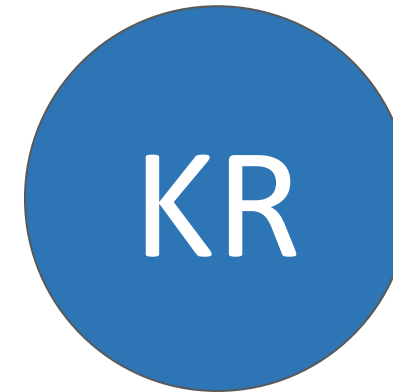
Use the **raise hand** feature

Configure **your name** so that one can call you precisely

Tutorials Team



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Tutorials Purpose

- Application and **consolidation** of lecture content
- **Hands-on** activities and discussion
- **Addressing** issues in doing the assignments
- Opportunity to discuss and ask **questions**
- **Preparation** for the exam and future graphics work/research fundamental skills

Syllabus

Dates	Title	Topics
04.05 / 06.05	Survival Mathematics	Coordinate system, linear algebra, JavaScript basics
11.05 / 13.05	Transformations	Affine transformations, 3D Rotations, scene graph
18.05 / 20.05	Geometry	Geometric representation, Bezier interpolation, CSG, mesh sampling, LOD
25.05 / 27.05	Camera	View frustum, orthographic and perspective projections
08.06 / 10.06	Rasterization	Algorithms in rasterization, GLSL
15.06 / 17.05	Materials	Texturing, Blinn-Phong, The render equation, BRDF
22.06 / 23.06	Illumination	Shading frequency, Whitted-style ray tracing, Monte-Carlo path tracing
06.07 / 08.07	Final Review	Question list to prepare the exam

- **Register** yourself via [Uni2Work](#) before 04.05! Choose one that fits your schedule:
 - **Monday Group 16:00 - 18:00**
 - Zoom Link: <https://lmu-munich.zoom.us/j/95968678932>
 - **Wednesday Group 16:00 - 18:00**
 - Zoom Link: <https://lmu-munich.zoom.us/j/95330770352>

Assignments Policy

- Assignment online after each lecture
- Slides online after each tutorial
- News, updates, and important announcements on the official website: mimuc.de/cg1
- Doing the assignments is completely voluntary
- We recommended you do the assignments
- There are two bonus assignments. Each gives you 5% add-on for the exam raw grades
- Assignments are turned in via Uni2Work, write either in English or German
- We do *not* accept group submissions
- Late submissions won't be corrected
- There will be a reasonable amount of coding tasks for sure!

Cheating Policy

- If we discover cheating behavior or any kind of fraud in solving the assignments, you will be withdrawn for the entire course!
- If that happens, you can only rejoin the course next year

Exam

- We hold the exam online. There will be three work packages:
- **Abgabe 1 (Programming, 50p): 06.07.-10.07.20**
- **Abgabe 2 (Non-programming, 50p): 13.07.-18.07.20**
- **Abgabe 3 (Programming, 100p): 20.07.-31.07.20**
- Uni2Work is used for the distribution and submission of the work packages. Please check your Uni2Work account.

Online Messaging & Office Hours

- Slack: <https://mimuc.slack.com/messages/cg-ss20>
- 1:1 Meeting on Friday between 13:00 and 14:00
- How-to
 - <https://lmu-munich.zoom.us/j/92671259639>
 - Password: cg1
 - send an email or ask in Slack to schedule a meeting **at least one day in advance**
 - send a list of questions in advance, no requests for solutions of assignments

FAQ

Q: Do I have to submit the calculation/problem-solving process?

A: Yes, your mental thought process is helpful for us to correct your submissions.

Q: Will the assignments be discussed in the tutorial?

A: Yes.

Q: Do I have to master JavaScript to get through this course?

A: No. Every programming language is designed for many different aspects. We are using JavaScript for the purpose of the graphic. Certainly, you do not need to know every detail regarding JavaScript. Understanding the most important concepts, e.g. function, class, for loop and etc., which appear in (almost) every programming language is sufficient in building prototypes for this course.

This is also important for you to know: In the graphics world, especially in those big, complex giants graphics software, no one knows how everything works. All approaches to understanding how a single code base works have failed. ***Get your work done without knowing every detail*** is critical in modern developments.

(doesn't mean that you can ignore all details!)

Q: There are pieces of stuff not discussed in the lecture but appears in the tutorial, are they relevant to the exam?

A: Yes. Everything is connected.

Q: Do I have to remember the three.js APIs by hard for a closed book exam?

A: No. But unfortunately there will be programming tasks in the exam.