

TIEA311

Tietokonegrafiikan perusteet

kevät 2019

(“Principles of Computer Graphics” – Spring 2019)

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Adapted from: *Wojciech Matusik*, and *Frédo Durand*: 6.837 Computer Graphics. Fall 2012. Massachusetts Institute of Technology: MIT OpenCourseWare, <https://ocw.mit.edu/>.

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Frontpage of the local course version, held during Spring 2019 at the Faculty of Information technology, University of Jyväskylä:

<http://users.jyu.fi/~nieminen/tgp19/>

TIEA311 - Today in Jyväskylä

Plan for today:

- ▶ Usual warm-up and group discussion
- ▶ Try to address the most urgent issues
- ▶ Break – reset the brain.
- ▶ Then continue with the theory.

TIEA311 - Today in Jyväskylä

We start by discussion, reflection and **questions!**

Work in groups of 3 students if possible:

- ▶ Fast warm-up: 90 seconds evenly split between group members (30s each in groups of 3), no interruptions from others: Foremost feelings right now?
- ▶ Reflection: Silent work, solo, 1 minute, **list words on paper**: What have you learned during the last week? Or since the course started?
- ▶ Interaction: 1.5 minutes group discussion: Compare if you learned the same or different things? Do those things feel useful? Why or why not?
→ Sum it up classwide.
- ▶ Interaction: Group work, 1.5 minutes or less if talk ends: At the moment, what would be the most helpful thing to help you (or others!)?
→ Sum it up classwide, and try to address the findings.

TIEA311 - Today in Jyväskylä

What were the findings in group discussion?

What were found to be the most important issues to address right now?

→ Classwide discussion is found on the lecture video.

NOTE: Even if you watch at home, please think about the same things and try to be in "virtual dialogue" with those in classroom. Use pen and paper! I believe, more and more every day, that doing so will make your brain perform activities that help **your own learning**.

NOTE: Contemplate if you could watch the lecture videos with some friends who would also like to learn computer graphics? Get some pizza and coke if it helps you get to the mood(?).

Vectors (linear space)

- Formally, a set of elements equipped with addition and scalar multiplication
 - plus other nice properties
- There is a special element, the zero vector
 - no displacement, no force

TIEA311 - Today in Jyväskylä

The time allotted for this lecture is now over.

Now: Break until tomorrow morning. Sleep if you have time.

We will pick up our thoughts soon enough!