INFOGR – Computer Graphics

Jacco Bikker & Debabrata Panja - April-July 2018

Lecture 1: “Introduction”

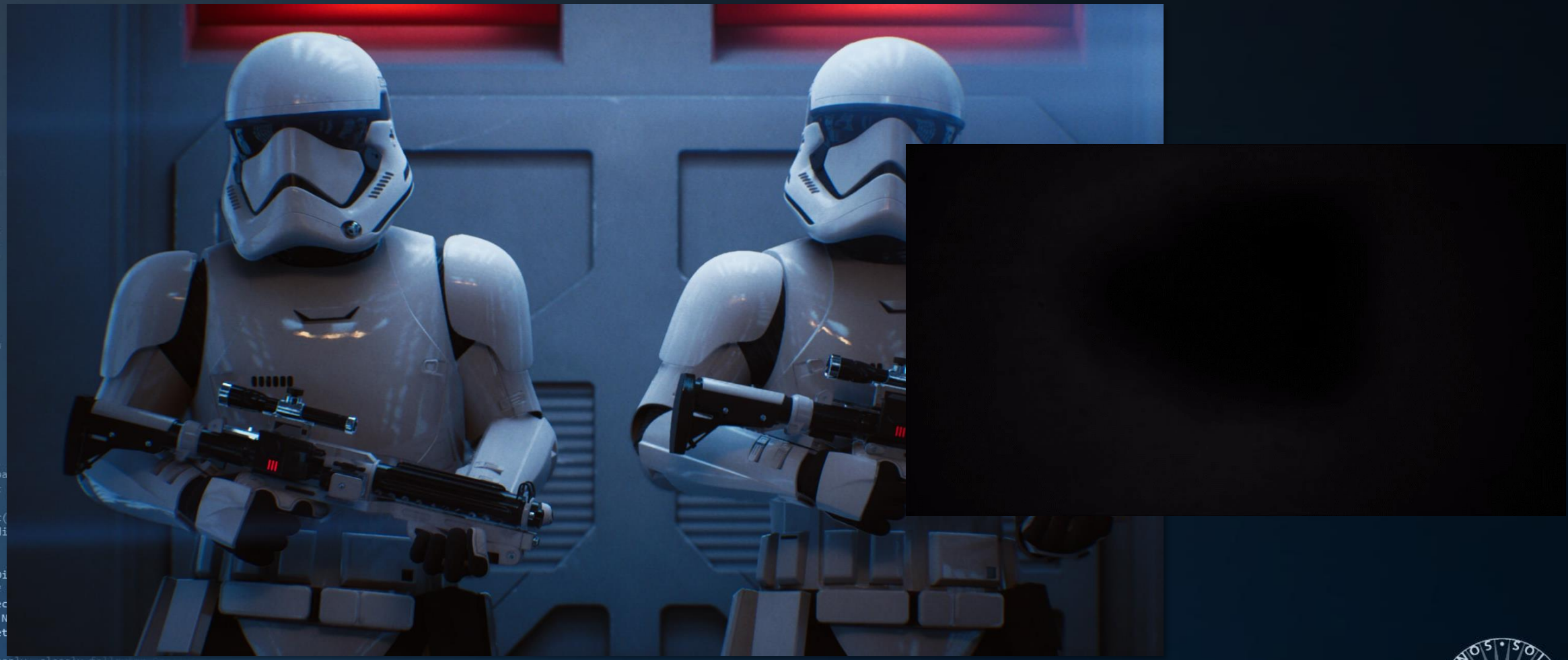
Welcome!

Today’s Agenda:

- Graphics
- Course Introduction
- Math 1

Introduction

Introduction



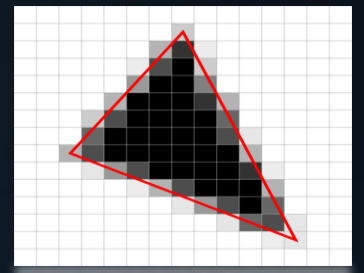
Introduction

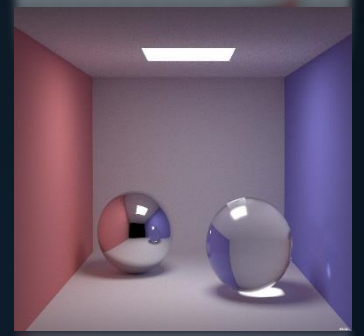
Introduction

Computer Graphics 2018:

Looking for realism (in several wrong places):

1. Rasterization
   - Geometry
   - Textures, shaders
   - Clipping, culling
   - Post processing
   - …
2. Ray tracing
   - Ray/triangle intersections
   - Bounding volume hierarchy
   - Snell, Fresnel, Beer
   - Whitted, Cook, Kajiya
   - …
3. Mathematics
   - Vectors
   - Matrices
   - Transformations





Introduction

Language: English,
because of reasons.

Prerequisites: C#.

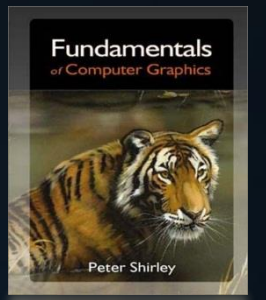
Literature: Fundamentals of Computer Graphics (3rd edition), by Peter Shirley and Steve Marschner (or 4th, or 2nd, or 1st).

~15 lectures.

Supporting math tutorials and working lectures.

For rooms: see schedule.

NEW: Respect the ‘groepsindeling’.



Introduction

Exams:

- Mid-term: May 16th.
- End of term: June 27th.
- Retake: July 11th.

Attendance:

You are not required to attend any of the lectures / tutorials / practicals (i.e., if you are here, it’s because you want to).*

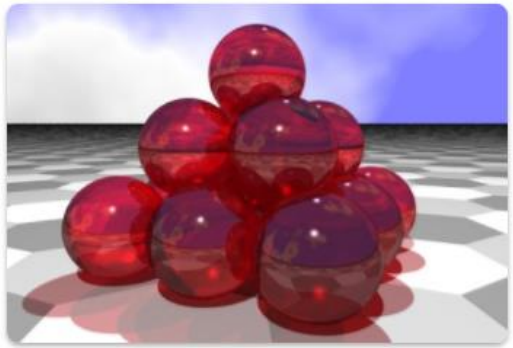
*Obviously, attendance is highly recommended.

Graphics

UNIVERSITEIT UTRECHT - INFORMATION AND COMPUTING SCIENCES

academic year 2017/18 – 4th period





Navigation

http://www.cs.uu.nl/docs/vakken/gr

Course Overview | Schedule | Practica | Literature & Links

News

Slack - INFOGR2018


Ctrl+1


Ctrl+2


Ctrl+3


Ctrl+4


Ctrl+5

INFOGR2018

Jacco Bikker

All Threads

Channels

general

random

supervisors

Direct Messages

slackbot

Jacco Bikker (you)

Bereket

Ik houd van frikandellen

Jeffrey

+ Invite People

Apps

#general

4 | 0 | Company-wide announcements and work-based matters

Search

https://infogr2018.slack.com/signup

use student.uu.nl e-mail address

general

You created this channel today. This is the very beginning of the **# general** channel. F
is for workspace-wide communication and announcements. All members are in this c

+ Add an app Invite others to this channel

Today

Jacco Bikker 10:55 AM
joined #general along with 3 others.

Message #general

Introduction

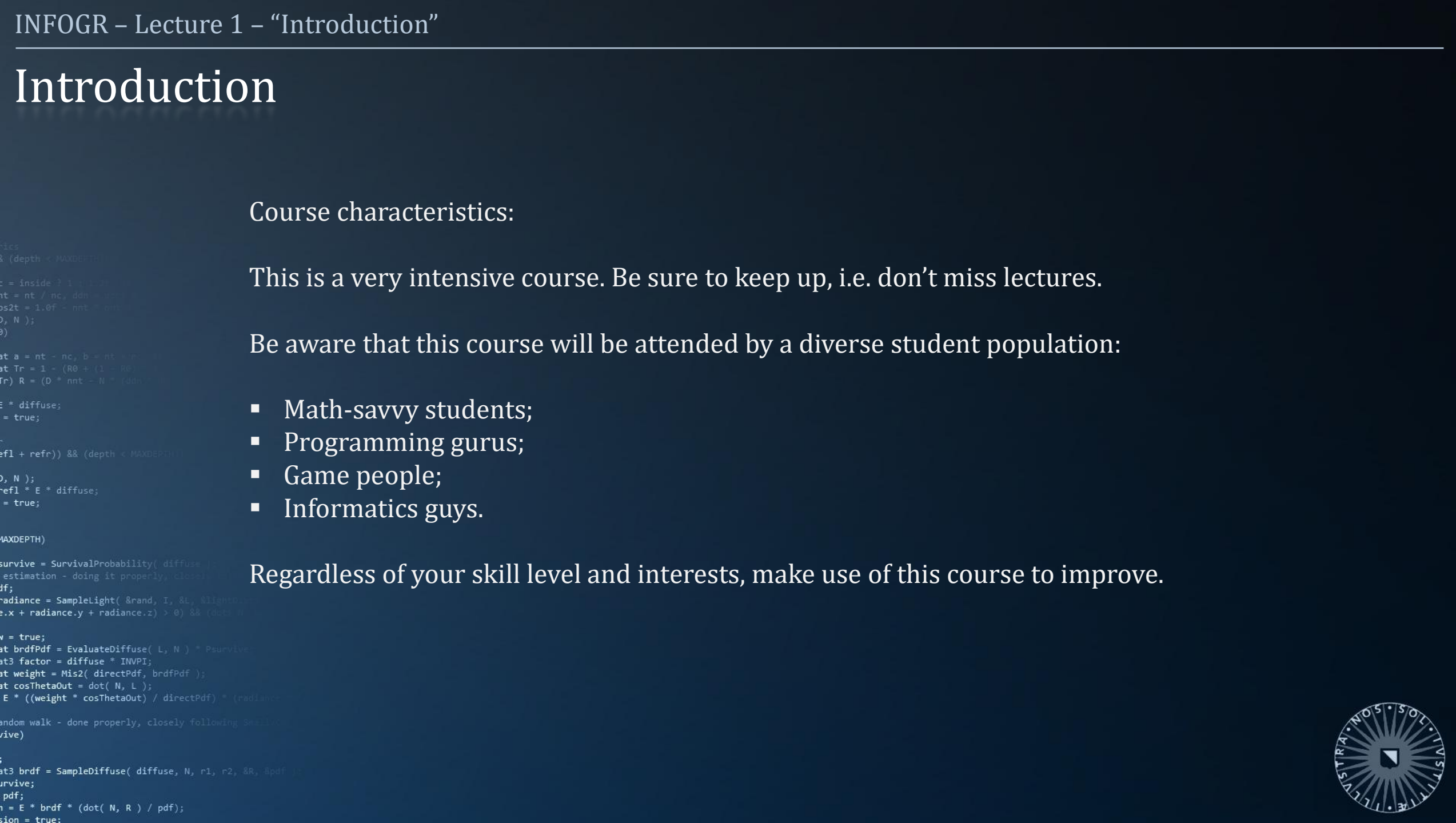
Course characteristics:

This is a very intensive course. Be sure to keep up, i.e. don’t miss lectures.

Be aware that this course will be attended by a diverse student population:

- Math-savvy students;
- Programming gurus;
- Game people;
- Informatics guys.

Regardless of your skill level and interests, make use of this course to improve.



Team

Lecturers:

Jacco Bikker
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Debabrata Panja
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Office: BBL 511

Team

Student Assistants:

1. Frederico D’Ambrosio
2. Mark Dekker
3. Jan Posthoorn
4. Willem Wijnia
5. Iwan Boksebeld
6. Niels Kwadijk
7. Hugo Peters

Practical Details

Assignment Overview:

i. P1: “Introduction”;
ii. P2: Ray Tracing;
iii. P3: Rasterization.

Final practicum grade is (P1 + 2 P2 + 2 P3) / 5.

Exam overview:

i. T1: Mid-term exam;
ii. T2: Final exam.

Final exam grade is 0.3 * T1 + 0.7 * T2.

Final grade: (T + P) / 2

Passing criteria:

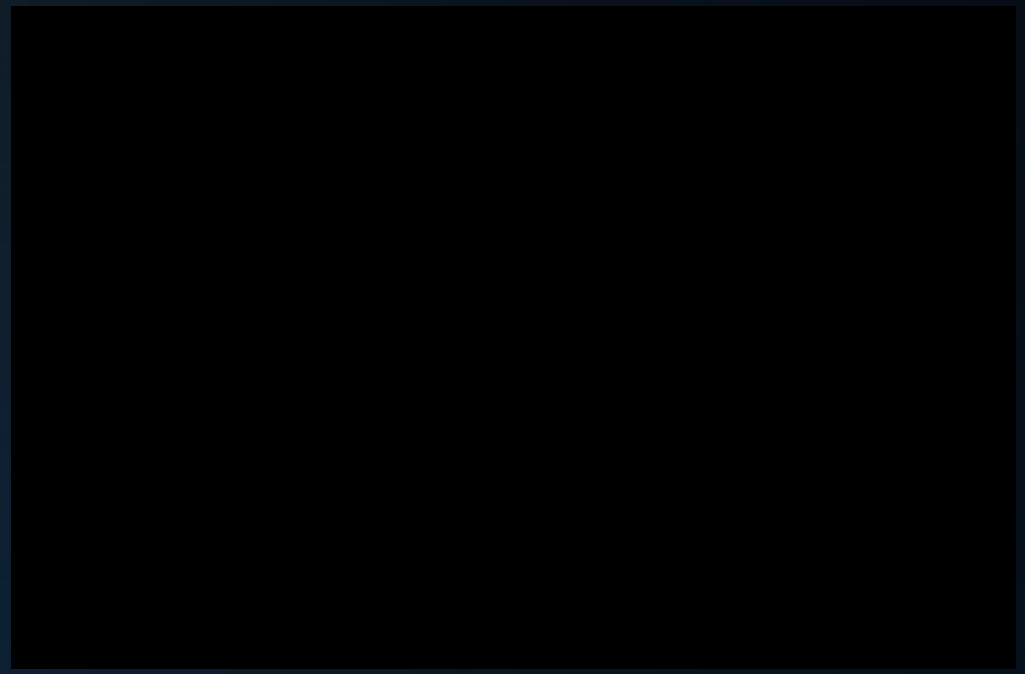
Final Grade ≥ 6 (<u>after</u> rounding); both T and P ≥ 5.0 (<u>before</u> rounding).

Practical Details

How to hand in assignments:

- http://www.cs.uu.nl/docs/submit

First assignment (“Introduction”) is online now:
See website.



Practical Details

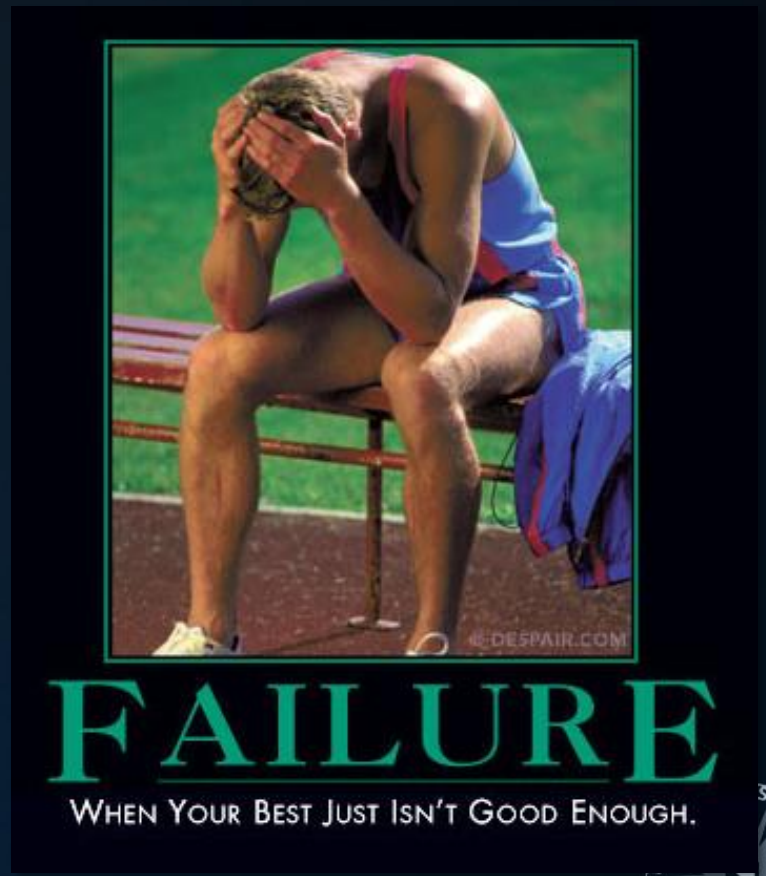
Retake: only if you failed the course, and scored at least a 4.0 (before rounding).

Retake / Theory:

- Retake covers all theory and replaces min(T1, T2).

Retake / Practical:

- Retake replaces min(P2, P3).
  Topic will be assigned individually.



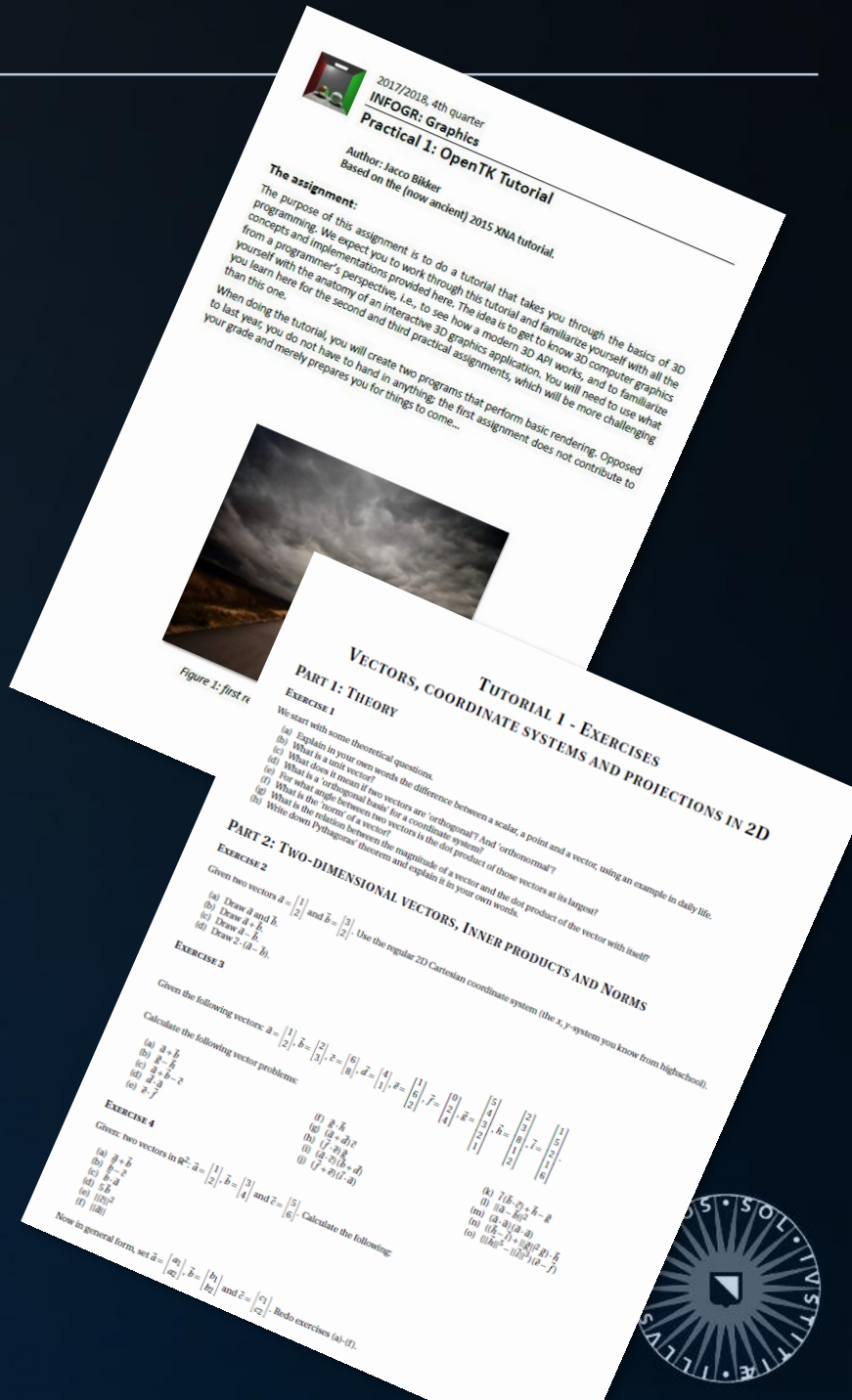
Assignments

PART 1: Mathematics

Tutorial 1 is now available from the website.

PART 2: Programming assignment

P1 (OpenTK Introduction) is now available from the website.
Assistance is available after each lecture.



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