Computer Graphics
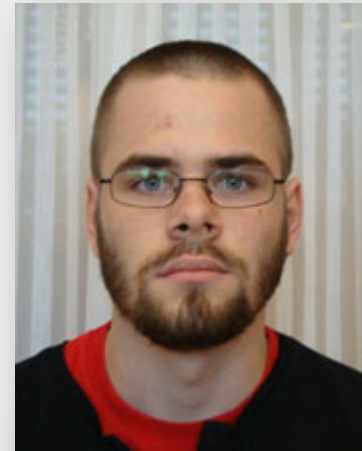
Virtual Environments

Spring 2015

"Velkommen!"

- ## We are
  - Tom-Robert Bryntesen: *3D programming*
  - Michael Louka: *Concepts, theory & practice*
  - Thomas Winger: *3D programming*

About the course

- Theory and practice for implementing non-trivial interactive 3D applications
  - with a focus on virtual environments

- Introduction to concepts and research issues

- Practical introduction to using the JMonkeyEngine 3D API to implement applications

Web Pages

- http://create.ife.no/vr/kurs/vrhiof15/info/
- Course Info
    - Plan, Tools, Literature, Evaluation, etc.
- Modules
    - New material added every week
- Resources
    - External resources, websites, groups, etc.

Course Plan

- Lectures in IFE's VR lab every Monday
  - Start at 12:15
  - Normally last 3 hours with
    - 1 hour on concepts/theory
    - 2 hours on applying concepts
  - The first and last lectures are an hour longer
- Also four programming "Workshops"

Course Plan

Week	Topic	Date	Duration
1	Introduction, including demos	9 February 2015	4
2	Content Production	15 February 2015	3
3	Workshop	23 February 2015	3
4	Interaction	2 March 2015	3
5	Animation	9 March 2015	3
6	Workshop	16 March 2015	3
7	Simulation	23 March 2015	3
8	Optimisation	13 April 2015	3
9	Workshop	20 April 2015	3
10	Immersion, including workshop	27 April 2015	4

Literature

- Required:
  - Lecture slides and notes (links/handouts)
  - Articles and papers (links/handouts)
  - Book: JMonkeyEngine 3 online documentation

- Optional:
  - See the main course website on the HiØ site for suggestions of optional further reading

Evaluation

- You will work on an assignment during the course that will be submitted for evaluation

- Your assignment should demonstrate your understanding of how to implement concepts taught

- The assignment requires that you develop an interactive 3D application and document the design and concepts applied in a report.

- *We will discuss the assignment and what you are expected to demonstrate in it during the first workshop.*

Advice, Questions, Guidance

- E-mail addresses:
  - Tom-Robert: tom-robert.bryntesen@hrp.no
  - Michael Louka: michael.louka@hrp.no
  - Thomas Winger: thomas.winger@hrp.no
- Can also visit us in Os Allé 5 (3rd floor)
  - Need to phone first to be let in so best to arrange visit via e-mail beforehand

Finally

We hope that you will find this course education, interesting, useful, and fun!