科目ナンバリング	U-LAS70 10002 SE50						
授業科目名<英訳>	ILAS Seminar-E2 :Let's create 3D computer animations（三次元アニメーションを作ってみよう） ILAS Seminar-E2 :Let's create 3D computer animations			担当者所属職名・氏名	医学研究科　准教授　PATAKY，Todd		
群	少人数群	単位数	2単位	週コマ数	1コマ	授業形態	ゼミナール（対面授業科目）
開講年度・開講期	2026・前期	受講定員(1回生定員)	15 (10) 人	配当学年	主として1回生	対象学生	全学向
曜時限	金5	教室	医学部人間健康教科学科第6講義室 (医・薬・病院構内)			使用言語	英語
キーワード	3D modeling / computer graphics / character animation / Blender						

[授業の概要・目的]

This course introduces the basics of computer-based 3D modeling (shape design, lighting, materials, surface textures) and animation (keyframes, object motion, camera zooming and panning, etc.). The open-source software“ Blender ”(blender.org) will be used for all lessons. Blender can be used for free on Windows, Mac and Linux. As a final project, you will create a short animated movie. Programming experience is recommended but not required.

[到達目標]

Students will become familiar with the main concepts of 3D modeling and animation. They will learn how to reproduce simple example 3D models and animations. After some initial general assignments, focus will shift to Final Projects, which students will work on for most of the semester. The goal of Final Project is to create a 60 s (or longer) animation. The animation theme, style and techniques are all free, to be chosen by each student based on your interests. The instructor will help students to choose a Final Project that is challenging, but also achievable. The instructor will also help you solve Final Project modeling and animation problems as you encounter them.

[授業計画と内容]

The following weekly topics will be covered:

1) Modeling I: Fundamentals
2) Animation I: Fundamentals
3) Modeling II: Materials & Lighting
4) Modeling III: Images, Videos & Sounds
5) Animation II: Camera Animation
6) Presentations I: Initial Results
7) Animation III: Fine-tuning
8) Modeling IV: Organizing, Linking & Appending
9) Modeling V: Add-ons
10) Presentations II: Progress Report
11) Advanced Topics I: Environments
12) Advanced Topics II: Scripting
13) Advanced Topics III: Physics
14) Presentations III: Final Projects
15) Feedback

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[履修要件]

There are no specific requirements for this class. However, students must be willing to work with open-source software, which is relatively poorly documented compared to commercial software. The class instructor will help with problems, but students are also encouraged to find solutions to their problems through internet searches.

[成績評価の方法・観点]

Students are expected to actively participate in class, to reproduce all examples discussed in class, and also to complete regular reports.

Evaluation will be based on the following criteria:

- Assignments (49%) [7 @ 7% each]
- Presentations (21%) [3 @ 7% each]
- Final Project (30%)

TOTAL: 100%

[教科書]

No specific textbook will be used. All necessary materials will be distributed electronically and will be discussed in class.

[参考書等]

（参考書）

A number of useful books and internet resources will be discussed for student self-learning.

（関連ＵＲＬ）

www.blender.org(Blender is free-and-open-source 3D modeling software that will be used in all lectures and all assignments.)

[授業外学修（予習・復習）等]

This course has a variety of out-of-class assignments (including a Final Project) and no exam. Students who do not pay attention to the lecture content during class will likely have difficulties completing the assignments.

[その他（オフィスアワー等）]

REASONS FOR CLASS SIZE RESTRICTION:
This class extensively uses Blender (blender.org), which is a powerful and complex software package. Extensive one-on-one student support to understand and handle software problems that arise. A large class size is not feasible.

IN-CLASS ENVIRONMENT
This is a small seminar class, and active discussion is encouraged. Students are encouraged to ask questions, both of the instructor and of fellow students. We are all here to learn, so let's work together to create the best results we can!

OFFICE HOURS:
Immediately before / after class or by appointment (pataky.todd.2m @ kyoto-u.ac.jp)

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[主要授業科目（学部・学科名）]