



UNIVERSITÄT  
ZU KÖLN

# METaverse TECHNOLOGIES AND BUSINESS MODELS

Syllabus – Last Update 02 February 2026

# What is This Course About?

*“So Hiro’s not actually here at all. He’s in a computer-generated universe that his computer is drawing onto his goggles and pumping into his earphones. In the lingo, this imaginary place is known as the Metaverse. Hiro spends a lot of time in the Metaverse.”*

- Neal Stephenson, Snow Crash (1992)

# Main Contents of The Course

- History and evolution of the Metaverse
- Current trends and proto-metaverses
- Metaverse technologies (hardware and software) and standards
- Metaverse design and artifacts
- Metaverse governance and regulation
- Business models and monetization strategies

# Learning Goals

Students...

- analyze current questions and challenges in leveraging Metaverse technologies for digital innovation and business models.
- act responsibly considering ecological, social and ethical criteria.
- critically evaluate current social developments and develop alternative solutions.
- develop work processes for real problems and challenges.
- know and understand the relevant methods and theories for the module content.

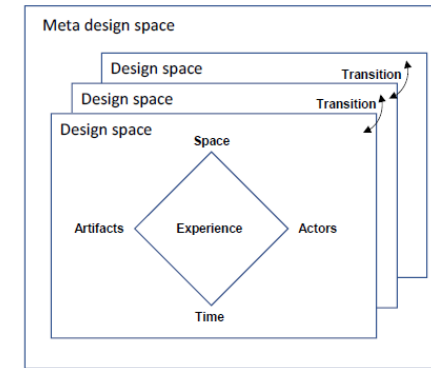
# How this Unit Fits in the M.Sc. Information Systems

- Modul Name: SM Information Systems III (1277MSISY3)
- Course Name: Metaverse Technologies and Business Models
- 6 ECTS Credit Points

	1 <sup>st</sup> Term (Winter)	2 <sup>nd</sup> Term (Summer)	3 <sup>rd</sup> Term (Winter)
Information Systems Profile: Digital Sustainable Society	IS and Environmental Sustainability [BM Information Systems I]		Sustainable Digital Innovation Lab [SM Information Systems I] Applied Mathematical Optimization [SM Information Systems III]
Information Systems Profile: Business Intelligence & Data Science	Analytics and Applications [BM Information Systems II]	Advanced Analytics and Applications [SM Information Systems I] AI and Information Management [SM Information Systems III]	Decision Making under Uncertainty [SM Information Systems II]
Information Systems Profile: Digital Innovation & Entrepreneurship	Digital Transformation and Innovation [BM Digital Transformation]	Emerging Electronic Business [SM Information Systems II] Metaverse Technol. & Business Models [SM Information Systems III]	Digital Design [SM Information Systems II] Case Project Digital Transformation [SM Information Systems I]
Information Systems Seminars		Adv. Seminar Information Management [SM Seminar Information Systems I/II] Adv. Seminar COINs [SM Seminar Information Systems I/II] IS Research: Analytics for Sustain. Society [SM Seminar Information Systems I/II] Adv. Seminar IS and Digital Technology [SM Seminar Information Systems I/II]	Adv. Seminar Information Management [SM Seminar Information Systems I/II] Adv. Seminar COINs [SM Seminar Information Systems I/II] Adv. Seminar IS for Sustainable Society [SM Seminar Information Systems I/II]
Computer Science	[SM Computer Science I]	[SM Computer Science II]	
Supplementary Section	[1 Module from the Supplementary Section]	[up to 3 Modules from the Supplementary Section]	[up to 3 Modules from the Supplementary Section]

Mandatory Courses in Information Systems
  Elective Courses in Information Systems choose one from each module (I-III)
  Elective Seminars in Information Systems choose two in total
  Modules offered by other departments

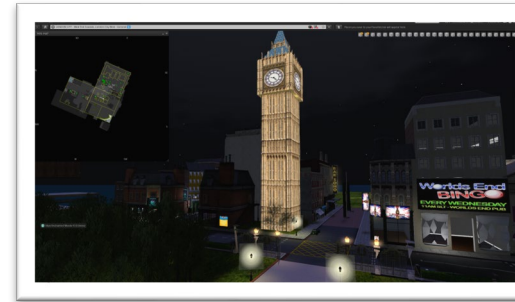
# Course Format & Assessment



**Conceptual foundations**

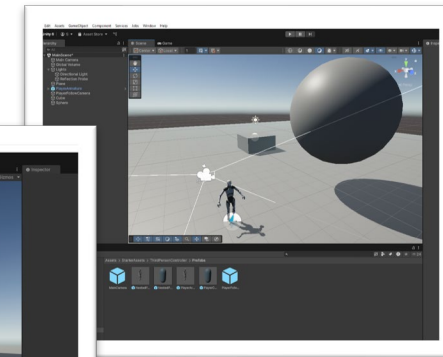
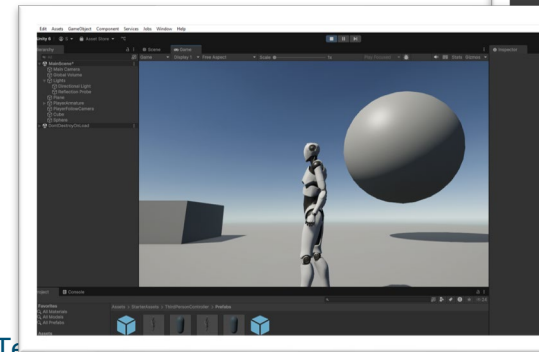
- Sessions Consisting of
  - Lecture Input
  - Hands-on experience, including development
- Combined Exam
  - Written exam [60%]
  - Project work [40%]

Seidel, S., Berente, N., Nickerson, J., & Yepes, G. (2022). Designing the metaverse. Proceedings of the Hawaii International Conference on Systems Science (HICSS) 2022.



**Hands-on experience with existing proto-metaverse applications**

**Developing Metaverse applications**



# Sessions

Date	Time	Session
01.04.2026	09:00-17:00	Session 1
02.04.2026	09:00-17:00	Session 2
08.04.2026	09:00-17:00	Session 3
09.04.2026	09:00-17:00	Session 4
10.04.2026	09:00-17:00	Session 5
23.04.2026	08:00-11.30	Q&A Session
30.04.2026	09:00-10:00	Exam

# Exam Registration

- You must **register for the combined exam in KLIPS**. The exam registration in KLIPS is **different from the course registration!** Exam Registration in KLIPS is mandatory to complete the course.
- **Registration deadline: 07.04.2026 (11:59pm)**
- Registration is for the **whole exam at once**, not for individual components. All two components must be completed in this semester, you cannot carry over your results from one component into next year.

# ILIAS

- All course materials are **shared through ILIAS**.
- **ILIAS keeps you updated** and informed, e.g.:
  - **News** about the course
  - **Deadlines** for submissions
  - Activate message forwarding to your email inbox
- **If you are not yet a member** of the ILIAS course
  - **Enrol yourself** to the course via KLIPS2 (you will be automatically added to the ILIAS course on the next day)
  - If you encounter problems, please contact me

# Volume

- The course is awarded **six credit points**, equivalent to 180 semester working hours (SWH; 1 SWH = 45 minutes)
  - As a **rule of thumb**, we expect you to invest around 12 SWHs on a weekly basis in total
  - That includes physical attendance in the sessions (3 SWHs), as well as self-study and work on the assessments (~9 SWHs)



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# CONTACT

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