Problembasiertes Lernen und digitale Lehre – Climate Change and the Effects on Health
(Vorklinik 03192324 Klinik 03192323)

Ort und Zeit	Ort: Würzburg	Zeit: **dienstags 17:15 - 18:45 Uhr**
Erster Termin:	Dienstag, 23.04.2024, 18:00 – 19:30	
Einführungsveranstaltung:	Dienstag, 23.04.2024, Ort: Lehrklinik, Medizinische Fakultät Würzburg, Campus UKW Grombühl – Haus D5	
Ansprechpartner/in:	Name: Dr. rer. nat. Oyudari Vova E-Mail: Vova_O@ukw.de	
	Name: Univ.-Prof. Dr. med. Sarah König E-Mail: Koenig_S7@ukw.de	
Anwesenheit	Anwesenheitspflicht * Ja Nein The teaching language is English. Group size: 10 students	
Zulässige Fehltermine	1 Session	
Prüfung	Within the framework of the elective course	
Prüfungsform	Active participation and brief presentation	
Veranstaltungsinhalte (optional)	Termin: Dienstag, **23.04.2024** 18:00 – 19:30	
Inhalt	Introduction into the topic “Climate Change and the Effects on Health” and into the used didactic methods “Problem-based-learning and digital learning”	
Dozenten/innen	Univ.-Prof. Dr. med. Sarah König; Dr. Oyudari Vova	
Beschreibung (optional)	Face-to face teaching, **Seminarraum EG (D5.1.012),** Lehrklinik	
Veranstaltungsinhalte (optional)	Termin: Dienstag, **30.04.2024** 17:15 – 18:45	
Inhalt	Case “Air runs short„ as PBL: exploring the problems and identification of learning objectives	
Dozenten/innen	Univ.-Prof. Dr. med. Sarah König; Dr. Oyudari Vova	
Beschreibung (optional)	Face-to face teaching, **Studiendekanat: Besprechungsraum (D6.1.010),** Lehrklinik	
	Please be aware that you need time for self-study after the session. You work on your defined learning objectives, search for information and prepare the results for a presentation (approx. 90 minutes required)	
Veranstaltungsinhalte (optional)	Termin: Dienstag, **14.05.2024** 17:15 – 18:45	
Inhalt	Case “Air runs short„ as PBL: presentation of case work and discussion	
Dozenten/innen	Univ.-Prof. Dr. med. Sarah König; Dr. Oyudari Vova	

Beschreibung (optional)	Face-to face teaching, **Studiendekanat: Besprechungsraum (D6.1.010),** Lehrklinik
Veranstaltungsinhalte (optional)	Termin: Dienstag, **28.05.2024** 17:15 – 18:45
Inhalt	Introduction to the EN-Roads - simulator
Dozenten/innen	Dr. Oyudari Vova
Beschreibung (optional)	Interactive Seminar, Face-to face teaching, **Studiendekanat: Besprechungsraum (D6.1.010),** Lehrklinik
Veranstaltungsinhalte (optional)	Termin: Dienstag, **04.06.2024** 17:15 – 18:45
Inhalt	En-Roads II - Simulation of climate change and testing measures to reduce global warming
Dozenten/innen	Dr. Oyudari Vova
Beschreibung (optional)	Interactive Seminar, **Zoom Meeting,** En-Roads simulator
Veranstaltungsinhalte (optional)	Termin: Dienstag, **11.06.2024** 17:15 – 18:45
Inhalt	RealityStack: Introduction into the fully immersive classroom (**Virtual reality**)
Dozenten/innen	Dr. Oyudari Vova
Beschreibung (optional)	Face-to face teaching, **Studiendekanat: Besprechungsraum (D6.1.010),** Lehrklinik
Veranstaltungsinhalte (optional)	Termin: Dienstag, **18.06.2024** 17:15 - 18:45
Inhalt	RealityStack: Explore sustainable practices for a green environment through interactive **3D scenes** and immersive VR elements.
Dozenten/innen	Dr. Oyudari Vova
Beschreibung (optional)	RealityStack (VR) - **items on loan at home**
Sonstiges	The elective course will be realized in a **face-to-face** (Lehrklinik) and various **digital formats,** the latter interactive sessions in VR. The online whiteboard Collaboard will be used to enhance interaction and collaboration in the classroom setting. Students will have an experience working with artificial intelligence tools, specifically with Elicit AI, and explore the interactive En-ROADS simulator to learn about global dynamics. Using the method of **problem-based learning**, you will define learning objectives to understand the conditions of climate-change-sensitive illnesses, research patient problems with the aid of suitable sources of information, and finally present the results to peers as well as experts. As a novelty, we will be investigating the use of a **fully immersive classroom** with **virtual reality (VR)** technology. Through exploring an ineractive 3D green environment model in RealityStack, students can gain new perspectives in **virtual reality-based** education. They learn within a virtual world equipped with interactive tools, such as 3D quizzes, where they can present feedback and engage in discussions about the connection between sustainable living and climate targets. This new study approach emphasizes the engaging and creative aspects of sustainable practices, providing support for a green and healthy environment.

	During the final session, students will have the opportunity to experience immersive classroom settings using VR techniques from their own homes and borrow the VR technical equipment. Innovative virtual technology enhances student's complex and design thinking skills (Lyu Q & Watanabe 2023). By participating in this program, you will gain a comprehensive understanding of the potential health effects of climate change, grounded in knowledge- based practical experience and digital learning competencies, preparing you for a new and future profession. What can you learn from this elective course? • to understand the existing and potential health impacts of climate change • to identify climate-related health issues • to be aware of characteristics that may make certain individuals especially vulnerable to climate change, e.g. heatwaves • to gain practical knowledge about an immersive VR learning environment and sustainable living through 3D scene models in VR • to explore the benefits of collaborative learning with digital learning systems
Literaturangabe (optional)	Terra X (Lesch) Video „Hitzetod trotz Schwitzen: Wird die Erde unbewohnbar?: https://www.zdf.de/dokumentation/terra-x/lesch-und-co-hitzetod-trotzschwitzen-wird-die-erde-unbewohnbar-100.html Editorial article: Call for Emergency Action to Limit Global Temperature Increase, restore biodiversity and Protect health https://www.nejm.org/doi/full/10.1056/NEJMe2113200?query=featured_home Climate simulator: https://en-roads.climateinteractive.org/scenario.html?v=23.6.1 Skills to be learned and the scope of 7 steps of problem based learning: https://www.maastrichtuniversity.nl/education/why-um/problem-basedlearning Artificial intelligence tool: Elicit Design-thinking skill enhancement in virtual reality: A literature study: Lyu Q & Watanabe K et al., 2023. Immersive classroom RealityStack: https://vilearn.hci.uni-wuerzburg.de/about/ Collaborative online whiteboard Collaboard: Online Whiteboard » Jetzt kostenlos nutzen! (collaboard.app)