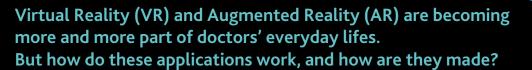


31.08.2022 to 06.11.2022 International Minor Siegen, Germany



## VIRTUAL AND AUGMENTED REALITY FOR DIGITAL MEDICINE

## HANDS ON INTRODUCTION TO SHAPING THE FUTURE OF DIGITAL MEDICINE



This minor aims at giving the students an understanding of VR/AR applications, their use, how they are developed and why they are increasingly popular in training and everyday lives of doctors as well as other medical staff.

The minor builds a link between theoretical foundations, medical applications and own creativity. It combines various educational formats, from lectures on basics and theory, via specific practical tasks to deepen understanding, to an extensive practical hands on lab and field course.

### Contents of the minor are:

- the future of digital medicine
- VR/AR technologies
- usability and gamification
- project management
- developing medical applications

### A strong offer with:

- high practical orientation
- learning and working in small groups
- renowned lecturers
- excellent and individual support

## DEEPENING ONE COURSE MINOR

10 weeks 15 EC



# Digital Medicine on the pulse of time:

Period?	31.08.2022 to 06.11.2022 Monday to Friday from 9:00 h to 16:30 h
Place?	Artur-Woll-Haus Am Eichenhang 50 57076 Siegen, Germany

No technical skills required!

## VIRTUAL AND AUGMENTED REALITY FOR DIGITAL MEDICINE



## **COURSE PROGRAM**

WEEK 01 02 03 04	05 06 07 08 09 10
Op:00 h - 12:00 h         AR         VR	PP CP P+
<ul> <li>AUGMENTED REALITY</li> <li>Introduction to augmented reality and the future of digital medicine</li> <li>AR Technology</li> <li>State of the art examples: AR in current clinical application</li> <li>Concept development, Interfaces</li> <li>Unreal Engine</li> <li>AR Lab Project</li> </ul> VIRTUAL REALITY <ul> <li>Introduction to Virtual Reality</li> <li>VR Technology</li> <li>State of the art examples: VR in clinical and educational medical contexts</li> <li>Concept development</li> <li>VR user experience</li> <li>Unity Engine</li> <li>VR Lab Project</li> </ul>	<ul> <li>PROJECT PREPARATION</li> <li>Advanced programming: Do's and Don'ts of software development</li> <li>Project management</li> <li>Concept Design of an own Medical VR/AR Application</li> <li>Skills Lab</li> </ul> CREATIVE HANDS-ON PROJECT <ul> <li>Concept and Development of an own Application</li> <li>Self-management in a small design team</li> <li>Weekly Design Reviews with the supervisors</li> </ul> PRESENTATION AND EXAMINATION <ul> <li>Presentation of the Hands-On Project results with live demonstration</li> <li>Written report + Exam</li> <li>Feedback sessions</li> </ul>

## Join us shaping the future of digital medicine!



### Hard to believe!

- INTERNATIONAL MINOR
   (in ENGLISH)
- FREE ticket for public transport in Siegen for this time possible
- This course is FREE

#### Erasmus MC Dr. Jifk<u>e Veenland</u>

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