



**HOCHSCHULE OSNABRÜCK**  
UNIVERSITY OF APPLIED SCIENCES

# INTERNATIONALES LEHREN UND LERNEN DIGITAL GESTALTEN?

Erfahrungen aus der Online Summer School „Learning Healthcare in  
Action – Clinical Data Analytics“



Photo by [Gaëtan Werp](#) on [Unsplash](#)



Photo by [Malte Heimhold](#) on [Unsplash](#)



Photo by [Jan Baborák](#) on [Unsplash](#)

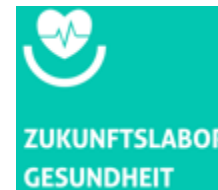
- **Summer Schools** haben eine Tradition an der Hochschule Osnabrück
- **Gemeinsames Lernen** und interkultureller Austausch steht im Vordergrund



With the support of the Erasmus+ Programme of the European Union



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# Syllabus and Course Content



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*Kick-Off Meeting*

## Agenda 17<sup>th</sup> June 2021

<b>Welcome</b>	The eHealth4all@EU project Syllabus and time schedule Learning outcomes
10 minutes break	
<b>Introduction</b>	Introduction of all participants Learning Management Platform
10 minutes break	
<b>Learning Health System</b>	Presentation Questions & Answers Adjournment

## Agenda 18<sup>th</sup> June 2021

<b>Learning Health System: Practical Examples in Wound Care</b>	Presentation Questions & Answers
10 minutes break	
<b>Sharing Experience in Data Analytics</b>	Applications Data Methods
10 minutes break	
<b>Introduction into SPSS</b>	Data and variable management Descriptive statistics and visualization



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FINLAND

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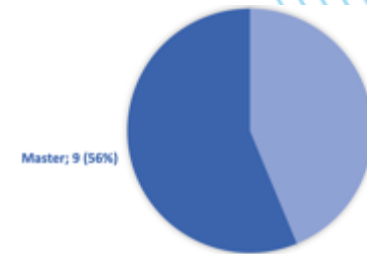


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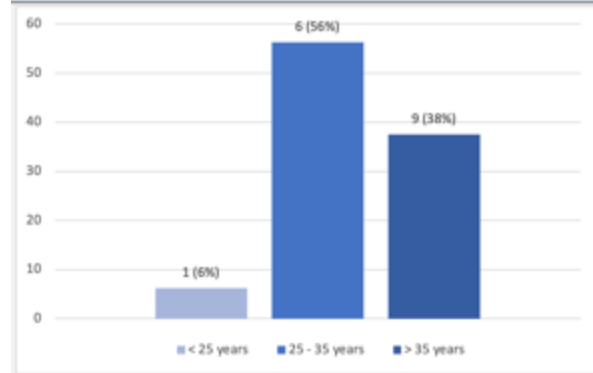


Doctoral studies; 7 (44%)

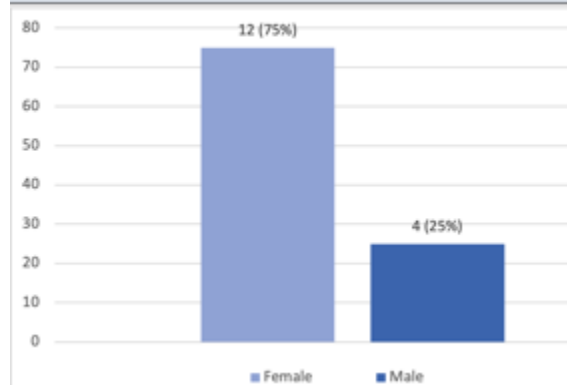
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Please specify your age (n = 16 (in %))



Please indicate your gender (n = 16 (in %)).



# Syllabus and Course Content



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## Self-Learning

Session 2 - Video: The Logistic Regression Model

In this video we start with simple linear regression models. Based on this model we explore the idea of the logistic regression model that builds on linear regression models.

Learning healthcare in action - clinical data analytics

### 3) Lesson: Odds Ratio and Case-Control Studies

This lesson contains 6 slides and 6 quizzes

Learn about Odds Ratio and their use cases in clinical research. First part of video series that explains logistic regression for clinical data analysis.

- Session 1 - Video: Relationship between two binary variables
- Introduction to the analysis of potential relationships between two binary variables.
- Session 1 - Quiz: Relationship between two binary variables
- Quiz to test your knowledge on the topic Relationship between two binary variables
- Session 2 - Video: Relationship between two binary variables (Relative Risks and Odds Ratios)

In this video, we will see how statistics such as relative risks and odds ratios quantify the relationship between two binary variables. Relative risks and



# Zahlen und Fakten zur Selbstlernphase

28  
englische  
Lern-  
videos

5,5  
Stunden  
Video-  
material

76 Quiz-  
fragen

10 Foren-  
diskussionen

2 Q&A  
Sessions

The screenshot shows a Moodle course page. At the top, there is a navigation bar with the university logo, 'Meine Kurse', and 'Deutsch (de)'. The user 'Jens Hüters' is logged in. The main content area is titled 'eHealth4All@EU - Learning healthcare in action - clinical data analytics' with the course ID 'FMUP-eHEALTH4All@EU-2020/2021-SP'. A breadcrumb trail shows 'Dashboard > Meine Kurse > eHealth4All@EU - Learning healthcare in action - clinical data analytics'. A 'Bearbeiten einschalten' button is visible. The left sidebar contains a 'Dashboard' menu with items like 'eHealth4All@EU - Learning healthcare in action - clinical data analytics', 'Course Management', 'Teilnehmer/innen', 'Bewertungen', 'Download Center', 'Allgemeines', 'Organizational matters', 'virtual European Summer School (23.-25. August 2021)', 'Kick-off-Meeting 17. & 18.06.2021', and 'Self-Learning Phase - Syllabus'. The right sidebar has 'Aktivitäten' (Arbeitsmaterial, Aufgaben, Chats, Foren, Glossare, Gruppenwahlen, Tests, Wikis) and 'Neue Ankündigungen' (Neues Thema hinzufügen..., 23. Aug., 16:25, Nicole Egbert, Chat for group work, 19. Aug., 11:07, Nicole Egbert, Reminder: Installation of SPSS, 16. Aug., 14:54, Nicole Egbert, virtual European Summer School 23.-25.08.2021: Schedule and link to Zoom, 16. Aug., 11:06, Nicole Egbert, Q&A-Session Friday 20.08.2021, 15. Jul., 08:21, Nicole Egbert).

**eHealth4All@EU - Learning healthcare in action - clinical data analytics**

FMUP-eHEALTH4All@EU-2020/2021-SP

Dashboard > Meine Kurse > eHealth4All@EU - Learning healthcare in action - clinical data analytics

[Bearbeiten einschalten](#)

Welcome to the course **Learning Healthcare in Action: Clinical Data Analytics!**

The course "Learning Healthcare in Action: Clinical Data Analytics" teaches you how to apply statistical analysis techniques to clinical data. The goal of the course is to show how statistical methods and models can be brought together with clinical data to generate new knowledge. In order to transfer this generated knowledge into the clinic in the form of evidence-based medicine, the use of the presented statistical models as decision support systems will be demonstrated. The course aims to convey the content in a practical manner. Therefore, in addition to teaching the statistical methods, clinical data used to build models will be addressed. Furthermore, a focus of the course is a research workshop in which you independently develop and validate statistical models based on clinical data.

The following topics will be covered in this course:

- Learning Health System
- Clinical Data and Secondary Use
- Evidence Based Medicine
- Statistical Methods and Models

moodle2021.up.pt



# Syllabus and Course Content



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Self-Learning

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Data Lab

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European Summer School  
Learning Health System in Action

Welcome to Day 1  
"Analysing Risk Factors"

Welcome to Day 2  
"Creating Prediction Models"

Welcome to Day 3  
"Presentations and Certificates"



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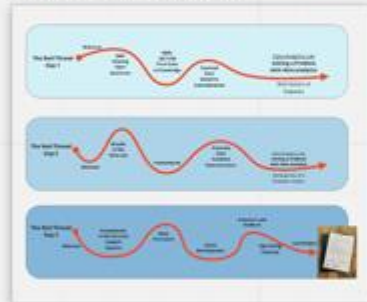
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## European Summer School Learning Healthcare in Action

Welcome to Day 1  
"Analysing Risk Factors"

Course Event Workshop



Map Activity - What's your Location?



Welcome to Day 2  
"Creating Prediction Models"

Positive Gossip



Presentation of the results of the Data Analytic Lab

Discussion

Coffee/Lunch Break

Data Demonstration Topic:

Welcome to Day 3  
"Presentations and Certificates"

Results of the Data Lab Day 2 - Team Presentations

Presentations, 20 minutes Discussion, 10 minutes

Team Osnabrück

Team Kuopio

Team Porto

Coffee Break (15 minutes)

Quick Retrospective



miro



## Herausforderungen

- Unverbindlichkeit von Online-Kursen: hohe Drop-Out Quote
- Aktivierung der Studierenden während der Selbstlernphase
- Unterschiedliche Lerntypen (Autodidakt vs. Hörer)
- Falsche Einschätzung des Workloads durch die *Studierenden*
- Falsche Einschätzung des Workloads durch die *Lehrenden*
- Vereinbarkeit mit anderen Verpflichtungen
- Studierende in unterschiedlichen Zeitzonen



# VIELEN DANK FÜR DIE AUFMERKSAMKEIT!

**Jens Hüasers, M.A.**

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**Nicole Egbert, M.A.**

[n.egbert@hs-osnabrueck.de](mailto:n.egbert@hs-osnabrueck.de)

Forschungsgruppe Informatik im Gesundheitswesen

<https://www.hs-osnabrueck.de/forschungsgruppe-informatik-im-gesundheitswesen/>

eHealth4all@EU: <https://www.hs-osnabrueck.de/ehealth4alleu/>

Zukunftslabor Gesundheit: <https://www.zdin.de/zukunftslabore/gesundheit>

”

The quizzes were fun and motivational. You did a really good job in preparing the videos!

Teilnehmerin der Summer School

”

Außerdem gefällt mir die internationale Stimmung im Kurs sehr gut, das etwas steife und altbackene Deutsche fällt weg.

Teilnehmerin der Summer School

”

Due to the timing of my dissertation, it was not possible to conciliate both things. I still took advantage of the course as it had some topics which I used in my dissertation.

Teilnehmerin der Summer School,  
die den Kurs abgebrochen hat

”  
Lehrende die sich im Bereich von Digitalisierung bewegen, berichten immer von Mehrarbeit. Sie müssen Lehrkonzepte in ein neues Format übersetzten. Das kostet immer Zeit.

Dr. Malte Persike, RWTH Aachen; Leiter Center für Lehr- und Lernservices

- 
- Hochschulen müssen Unterstützungsangebote machen
  - E-Learning Zentren an den Hochschulen
  - Unterstützung der Lehrenden bei der Produktion von digitaler Lernmittel
- 

Ziel: Lehrende in die Lage versetzen, mit den erstellten Materialien Lehre zu gestalten



”

Der Sommerkurs zum Thema „Clinical Data Analytics“ war angenehm intensiv und vermittelte richtig gutes und sofort verwertbares Wissen. [...] Außerdem lernt man andere Kollegen und Studenten unterschiedlichen Alters und Kulturen kennen. Einige der Lernmaterialien (Videos) sind in YouTube für jeden verfügbar. Es ist einer der am besten konzipierten Kurse, die ich belegt habe.

Teilnehmerin der Summer School

”

The course was very well organized and the content was very good. Also the online sessions taught me much more than in previous courses I´ve taken in statistical analysis. I also liked the tasks had to do with real life situations and modelling them.

Teilnehmerin der Summer School



”

Eines der wichtigsten Kriterien [der Digitalisierung der Lehre] auf Seiten der Lehrenden ist der Aufwand, der mit der Erstellung eines digitalen Lernmaterials verbunden ist. Digitalisierung [...] darf nicht zu einer Belastung für die ohnehin knappen Ressourcen bei Lehrenden werden.

TAGUNGSBAND Digitale Lehrformen für ein studierendenzentriertes und kompetenzorientiertes Studium