

DIGITAL HEALTH ENGINEERING AND ENTREPRENEURIAL INNOVATION

COURSE DESCRIPTION

INTERDISCIPLINARY COLLABORATION BETWEEN THE IAW AND WIN CHAIR

School of Business and Economics

IAW Institute of Industrial Engineering and Ergonomics

WIN Innovation and Entrepreneurship group by TIME Research Area

Contact: Cara Droege | cara.droege@time.rwth-aachen.de

JULY 2019

1 COURSE OUTLINE

Course name:	Digital Health Engineering and Entrepreneurial Innovation
Programme:	All master programmes
Professor:	Prof. Dr. Malte Brettel (WIN) Prof. Dr.-Ing. Verena Nitsch (IAW)
Lecturer:	Andrea Greven (WIN) Dr.-Ing. Dr. rer. medic. Alexander Mertens (IAW) Dr. Peter Rasche (IAW)
Contact:	Cara Droege (cara.droege@time.rwth-aachen.de) (WIN)
Dates:	Kick-off event: 19.09.2019, 5 p.m. (not mandatory) Block seminar: 24.-26.10.2019, 14.-16.11.2019 Exams: 14.11.2019 (Mid-term exam (Pitch)), 16.12.2019 (Final exam)
Course description:	In this transdisciplinary course, you receive the opportunity to work together with students from various disciplines by developing creative digital solutions to address the aging population in Europe. Triggered by an interactive experience of aging using an age simulation suit, you and your team will develop digital solutions to support older adults in the field of healthcare. This course will be delivered by RWTH's Entrepreneurship and Innovation Group (WIN) and the Chair and Institute of Industrial Engineering and Ergonomics (IAW). It comprises interactive teaching modules focusing on entrepreneurship, user-centered app design as well as ethical and age oriented product development.
Teaching goals:	In this course you can strengthen your skills in interdisciplinary teamwork and take a new perspective on age and health. A focus will be laid on the development of competencies for the ethical, social and age-appropriate development of digital (app-supported) solutions. Basic competences for the development of digital solutions, their user-oriented design and meaningful connection with a business plan are trained. This course provides you with the necessary tools to develop and deepen necessary skills and competences including contact with elderly people and experience of age by using an aging simulation. Additionally, you will deepen given the opportunity to increase your skills and competences in working scientifically (peer review, writing, etc.) as well as your presentation skills.
Literature:	n.a.
Course assessment:	Business Plan (40%), App Development using MIT AppInventor (40%), Presentations (20%)
Requirement:	None
Group size:	30 – 40 students
Teaching form:	Interactive lectures, flipped classroom, hands-on exercises as well as multiple guest lectures
Language:	Englisch
ECTS reference:	5 Credit Points

2 COURSE ORGANISATION & TOPICS

This course consists of interactive lectures and hands-on exercises by the WIN as well as the IAW Chair and Institute. This way you will gain insights into entrepreneurship, user-centered design as well as ethical and age oriented digital product development. Multiple guest lectures will give you an understanding of the relevance in practice. Furthermore, you receive the chance to enhance your presentation skills and win with your team a two-day excursion to Paris visiting CapDigital, the digital playgrounds in France.

Attendance

Attendance at all lectures is mandatory.

Application

The number of participants is limited. Please sign up for the class on RWTHonline.

In case you have questions please do not hesitate to contact us via Email at digitalhealth@time.rwth-aachen.de

We look forward to hearing from you!

Lecture Plan (subject to alterations)

Date	Event
Block 1	24.10.2019 17:00 – 21:00 Welcome Introduction to Healthcare Entrepreneurial Mindset Presentation Skills
	25.10.2019 17:00 – 21:00 Participative Design processes Age-related Design Introduction of the MIT AppInventor Introduction to Aging
	26.10.2019 09:00 – 17:00 Guest Lecture I – Talk to a senior Idea Generation Value Creation Guest Lecture II
Block 2	14.11.2019 17:00 – 20:00 Midterm Exam (Pitch)
	15.11.2019 17:00 – 21:00 Feedback Introduction to AMICAI From Prototype to Market - Medical Product Approval
	16.11.2019 09:00 – 17:00 Business Plan Writing Business Modelling Finance Guest Lecture III
Block 3	16.12.2019 08:30 – 15:00 Final Exam

3 COURSE ASSESSMENT

The course grade is composed of:

- Business Plan (40%)
- App Development with MIT AppInventor (40%)
- Presentations (20%)

While each of the components is delivered as a group, your individual effort will be assessed as well. Please be aware that you can only pass this course, if you pass each of the three components.

This course gives you the unique opportunity to learn the necessary entrepreneurial as well as technical skills to come up with your own digital business idea taking on challenges the aging population has to face day-to-day. Furthermore, you will gain further competences in presentation techniques and the efficient development of digital solutions like a smartphone app.

The team with the most promising business idea and performance will win a two-day excursion to Paris to visit our Partner, CapDigital, the digital playground in France. Two days visiting these innovation spaces and multiple opportunities to network with other start-ups awaits you.

We hope this course description sparked your interest!