

Course HT2022 Schedule.

Week 34	Topic
Zoom Lecture	Course Introduction
Friday 26 th 15:00-16:00	Introduction to course syllabus, activities, faculty and different moments
Fernando Seoane and Farhad Abtahi	

Module 1: Introduction to Healthcare Transformation (Weeks 34 - 36)	
Week 34	Factors driving Transformation of Healthcare Offline - Self-study- Content on Web - available 26th of August
<i>Contents</i>	<i>Patient Centredness and Patient Engagement, Evidence-Based Medicine, Patient safety</i>
Week 35 available 29 th August, 29 th Monday	Video Lecture on High-Value Care and Outcome Measures available 29th of August
<i>Contents</i>	<i>High-Value Care, PROMs & PREMs, Integrated care</i>
Week 35 available September, 1 st Thursday	Video Lecture of Digital Health Transformation: a holistic process
<i>Contents</i>	DHT vs Digitalization, What is DHT? and requirements to achieve it
<i>Week 36</i>	Individual student work – Own reflexion on DHT potential and hinders
<i>Contents</i>	Activity to check in own progress and possibility to get bonus points.
End of Module 1	

Module 2: Digitalization of Healthcare (Weeks 36 - 37)	
Week 36 available September, 5th Monday	Video Lecture in Interoperability in Digital Healthcare
<i>Contents</i>	<i>Definitions, challenges in healthcare, influencing factors & solutions</i>
Week 36 available September, 8th Thursday	Video Lecture- Health Data and Health Data Management
<i>Contents</i>	<i>Sources, Usage, Access, Examples from Hospital centers</i>
Week 37 Available September, 12th Monday	Video Lecture in Security, Privacy and GDPR
<i>Contents</i>	<i>Legal Framework, requirements, risks and trends</i>
Week 37 Available September, 15th Thursday	Ethics in Digital Health Self-study- Content on Web
<i>Contents</i>	Group Activity. Impact of digitalization on ethical principles in Healthcare
Activity	Group discussion about benefits and risk of digitalization in Healthcare
End of Module 2	

Module 3: Tools and Methods (Weeks 38 - 41)	
Week 38 Available September 19 th , Monday	Video Lecture in Lean and Six-sigma in healthcare
<i>Content</i>	<i>What is Lean-Six Sigma, application in Healthcare settings, showcasing.</i>
Week 38 Available September, 22 th , Thursday	Video Lecture in Business Intelligence in Healthcare
<i>Contents</i>	<i>What is Business Intelligence, BI in Hospitals</i>
Week 39 Available September 26 th , Monday	Video Lecture in AI and Machine Learning in Healthcare.
<i>Contents</i>	<i>Introduction to AI, ML process, types, examples in healthcare and step-by-step case demonstration</i>
Week 39 Available September 29 th Thursday	Video Demonstration – Application of Machine Learning.
Week 40 Available October 3 rd Monday	Video Lecture on Process-oriented Data Science.
<i>Contents</i>	<i>Introduction, Interactive process Mining Methodology, cases.</i>
Week 40 Available October 2 nd , Wednesday	Video Demonstration – Application of Process mining
Week 40 Available October 3 rd Thursday	Video Lecture on Data Visualization and Dashboarding
<i>Contents</i>	<i>Sources, potential uses, examples</i>
Week 41	Self Assessment of Module
<i>Contents</i>	Activity to check in own progress and possibility to get bonus points
<i>Activity</i>	Individual Quiz
End of Module 3	

Module 4: Medical Technologies (W41-W42)	
Week 41 Available October 10 th , Monday	Video Lecture in Real-Time Locations Systems.
<i>Contents</i>	<i>What is? Technologies, solutions and services. Real installations Walkthrough.</i>
Week 41 Available October 13 th , Thursday	Video Lecture Telemedicine, eHealth and mHealth.
<i>Content</i>	<i>Enabling Digital and IT technologies. What is what, communalities, differences and examples</i>
Week 42 Available October 17 th , Monday	Video Lecture on Wearable technologies and consumer level health device.
<i>Content</i>	<i>Wearable sensing foundations, personal health devices, lifestyle and wellbeing solutions.</i>
Week 42 Available October 20 th , Thursday	Video Digital Lecture on Regulatory framework of medical technology and digital health.
<i>Content</i>	<i>Applicable regulations, Software as a Medical Device, AI Act, European Health Data Space, EU vs US</i>
Assessment	Group work on all-through course assignment. Activity to check in own progress and possibility to get bonus points

Course Examination	
Week 44	Delivery of presentations of student group work for bonus points
Week 44 (1 hour)	Canvas Course Examination Quiz Multiple Answer type + Essay own reflection question
Week 50	Canvas Course Re-examination, Quiz Multiple Answer type + Essay own reflection question