

**Course 2QA327- Schedule HT2023.**

<b>Week 34</b>	<b>Topic</b>
Zoom Lecture	<b>Course Introduction</b>
Friday 25 <sup>th</sup> 16:00-17:00	Introduction to course syllabus, activities, faculty and different moments
Fernando Seoane and Farhad Abtahi	

<b>Module 1: Introduction to Healthcare Transformation ( Weeks 34 - 36 )</b>	
Week 34 available 26 <sup>th</sup>	<b>Factors driving Transformation of Healthcare Offline - Self-study- Content on Web</b>
<i>Contents</i>	<i>Patient Centredness and Patient Engagement, Evidence-Based Medicine, Patient safety</i>
Week 35 available 28 <sup>th</sup> August, Monday	<b>Video Lecture on High-Value Care and Outcome Measures</b>
<i>Contents</i>	<i>High-Value Care, PROMs &amp; PREMs, Integrated care</i>
Week 35 available August, 31 <sup>st</sup> Thursday	<b>Video Lecture of Digital Health Transformation: a holistic process</b>
<i>Contents</i>	DHT vs Digitalization, What is DHT? and requirements to achieve it
<i>Week 36</i>	<b>Individual student work – Own reflexion on DHT potential and hinders</b>
<i>Contents</i>	Activity to check in own progress and possibility to get bonus points.
<b>End of Module 1</b>	

<b>Module 2: Digitalization of Healthcare (Weeks 36 - 37 )</b>	
Week 36 available September, 4th Monday	<b>Video Lecture in Interoperability in Digital Healthcare</b>
<i>Contents</i>	<i>Definitions, challenges in healthcare, influencing factors &amp; solutions</i>
Week 36 available September, 7 <sup>th</sup> Thursday	<b>Video Lecture- Health Data and Health Data Management</b>
<i>Contents</i>	<i>Sources, Usage, Access, examples from Hospital centers</i>
Week 37 Available September, 11 <sup>th</sup> Monday	<b>Video Lecture in Security, Privacy and GDPR</b>
<i>Contents</i>	<i>Legal Framework, requirements, risks and trends</i>
Week 37 Available September, 14 <sup>th</sup> Thursday	<b>Ethics in Digital Health Self-study- Content on Web</b>
<i>Contents</i>	Group Activity. Impact of digitalization on ethical principles in Healthcare
<b>Activity</b>	Group discussion about benefits and risk of digitalization in Healthcare
<b>End of Module 2</b>	

<b>Module 3: Tools and Methods (Weeks 38 - 41)</b>	
Week 38 Available September 18 <sup>th</sup> , Monday	<b>Video Lecture in Lean and Six-sigma in healthcare</b>
<i>Content</i>	<i>What is Lean-Six Sigma, application in Healthcare settings, showcasing.</i>
Week 38 Available September, 21 <sup>st</sup> , Thursday	<b>Video Lecture in Business Intelligence in Healthcare</b>
<i>Contents</i>	<i>What is Business Intelligence, BI in Hospitals</i>
Week 39 Available September 25 <sup>th</sup> , Monday	<b>Video Lecture in AI and Machine Learning in Healthcare.</b>
<i>Contents</i>	<i>Introduction to AI, ML process, types, examples in healthcare and step-by-step case demonstration</i>
Week 39 Available September 28 <sup>th</sup> Thursday	<b>Video Demonstration – Application of Machine Learning.</b>
Week 40 Available October 2 <sup>nd</sup> Monday	<b>Video Lecture on Process-oriented Data Science.</b>
<i>Contents</i>	<i>Introduction, Interactive process Mining Methodology, cases.</i>
Week 40 Available October 4 <sup>th</sup> , Wednesday	<b>Video Demonstration – Application of Process mining</b>
Week 40 Available October 3 <sup>rd</sup> Thursday	<b>Video Lecture on Data Visualization and Dashboarding</b>
<i>Contents</i>	<i>Sources, potential uses, examples</i>
Week 41	<b>Self Assessment of Module 3</b>
<i>Contents</i>	Activity to check in own progress and possibility to get bonus points
<i>Activity</i>	Individual Quiz
<b>End of Module 3</b>	

<b>Module 4: Medical Technologies (W41-W42)</b>	
Week 41 Available October 9 <sup>th</sup> , Monday	<b>Video Lecture in Real-Time Locations Systems.</b>
<i>Contents</i>	<i>What is? Technologies, solutions and services. Real installations Walkthrough.</i>
Week 41 Available October 12 <sup>th</sup> , Thursday	<b>Video Lecture Telemedicine, eHealth and mHealth.</b>
<i>Content</i>	<i>Enabling Digital and IT technologies. What is what, communalities, differences and examples</i>
Week 42 Available October 16 <sup>th</sup> , Monday	<b>Video Lecture on Wearable technologies and consumer level health device.</b>
<i>Content</i>	<i>Wearable sensing foundations, personal health devices, lifestyle and wellbeing solutions.</i>
Week 42 Available October 19 <sup>th</sup> , Thursday	<b>Video Digital Lecture on Regulatory framework of medical technology and digital health.</b>
<i>Content</i>	<i>Applicable regulations, Software as a Medical Device, AI Act, European Health Data Space, EU vs US</i>
<b>Assessment</b>	Group work on all-through course assignment. Activity to check in own progress and possibility to get bonus points
<b>End of Module 4</b>	

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