The Hebrew University of Jerusalem

Syllabus

21st Century Medicine: Challenges and Possibilities - 55837

Last update 04-11-2020

HU Credits: 2

Degree/Cycle: 2nd degree (Master)

Responsible Department: Business Administration

Academic year: 0

Semester: 2nd Semester

Teaching Languages: Hebrew

Campus: Mt. Scopus

Course/Module Coordinator: Dr. Nurit Tweezer Zaks, Dr. Nurit Tweezer Zaks, Dr Ariel Furer, Prof Yechezkel Barenholz

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Coordinator Office Hours: 20:00-22:00

Teaching Staff:
  Prof Yechezkel Barenholz,
Dr. Nurit Tweezer-Zaks,
Dr. Ariel Furer

Course/Module description:
  The course will familiarize students with the fast evolution and transformation of the 21st century healthcare. various aspects, including remote patient care models, hospitals of the future, consumerization of healthcare and alterations in incentives will be discussed with the emphazise on providing tools for enabeling students to become change-agents and entrepreneurs from within this evolving healthcare system

Course/Module aims:
  We aim to prepare healthcare students to take active role in designing the future of medicine, thereby creating hybrid leaders involved deeply in the clinical world while holding vast knowledge and understanding in the field of medical innovation, drug development, medical device design and digital health solutions.

Learning outcomes - On successful completion of this module, students should be able to:
  Student will be capable to understand the complexity of decision making in the field of medical innovation (well beyond the clinical view), the current and future challenges of the changing system. We expect this knowledge and exposure to set the tone for enabling the implementation of new concepts to initiate concrete initiatives in clinical areas they are familiar with or eager to impact.

Attendance requirements(%):
  85%

Teaching arrangement and method of instruction: There are three pillars to the course :
1. frontal lectures by experts on fundamentals of medical innovation.
2. Case studies delivered by innovators and entrepreneurs in the field of medical innovation
3. Workshops where specific products or projects will be dissected and analyzed by students themselves

Course/Module Content:

  1. Lead by Example (1): HCP/Entrepreneur personal angle
2. Expert Corner (1): The healthcare system structure today (various international and national models) – payers, providers, customers, suppliers, why is change needed, projected future trends
Expert Corner (2): Healthcare costs, introduction to health economics and the innovative data driven value chain, Alternatives

1. Lead by Example (2): HCP/Entrepreneur personal angle
2. Expert's Corner (3): Transformations in the Healthcare system- new models (tomorrow's hospital, community care, home care, consumerization of the healthcare system, data ownership)
1. Lead by Example (3): Introducing change in a system
2. Expert's Corner (4): Introducing entrepreneurship in complex system Instruct students on preparation of workshop (1)
1. Expert's Corner (5): Market analysis and refining the need in healthcare
2. Workshop (1): Need definition and seeking alternatives.
3. Instruct students on preparation of workshop (2)
1. Expert's Corner (6): Risk Assessment and Management, Crisis Management
2. Expert's Corner (7): Funding and budgeting in healthcare
1. Lead by Example (4): Introducing change in a system
2. Workshop (2): Defining solutions and planning a way forward
3. Instruct students on workshop (3)
1. Lead by Example (5): Introducing change in a system
2. Workshop (3): Solutions execution & implementation (customers, contractors, economics and risk assessment)
* handouts of workshops 1+2 to be provided for evaluation*
3. Instruct on workshop (4) – –
1. Expert's Corner (8): Commercial analysis, Comps and competition
2. Workshop (4): Choosing the right project for your organization and building a team
3. Instruct on workshop (5)
1. Expert's Corner (9) : Formulating a business model, familiarize with IP and the role of TTO
2. Workshop (5): Securing funding and managing your budget in healthcare organization
3. handouts of workshops 3+4 to be provided for evaluation
4. Instruct on workshop (6) –
1. Lead by Example (6): Introducing change in a system
2. Workshop (6): Pitching and presentation skills
1. Expert's Corner (10): Innovation model in healthcare organizations
2. Expert's Corner (11): Innovation model in public service
3. handouts of workshops 5+6 to be provided for evaluation

Required Reading:
 1. _Reverse Innovation in Health Care: How to Make Value-Based Delivery Work. by Vijay Govindarajan and Ravi Ramamurti, Publication Date: July 10, 2018, Harvard Business Review_
2. Digital Health Technology, Global case studies for healthcare transformation. Deloitte Insights report
3. Embracing uncertainty, managing complexity: applying complexity thinking principles to transformation efforts in healthcare systems. Sobia Khan et al, BMC Health services research 2018
4. Transformation in healthcare A prescription to address the rapidly changing health ecosystem, PWC 2019
5. The Creative Destruction of Medicine: How the Digital Revolution Will Create Better Health Care. Eric Topol, 2013
6. Why Doctors Hate Their Computers, The New Yorker, Atul Gawande, November 5, 2018
7. The Youngest Science by Lewis Thomas Penguin Books NY, 1993

8. Scientific Amrican May 2020 A New Era for Alzheimer's : Fresh approaches and hopeful clues in search for novel therapies p22-43

 Additional Reading Material:

  Course/Module evaluation:
  End of year written/oral examination 0 %
  Presentation 30 %
  Participation in Tutorials 10 %
  Project work 0 %
  Assignments 60 %
  Reports 0 %
  Research project 0 %
  Quizzes 0 %
  Other 0 %

Additional information: