

eHealth – connecting Healthcare IT, medical devices, processes and people

Prof. Dr. med. Sylvia Thun
Germany



Questions

- Target audience: Whom do we teach?
- Content: What do they have to know?
- Learning objectives and competence levels: Where and how far do we take them?
- Materials and methods: How do we teach and assess?

University of Applied Science Niederrhein Faculty of Healthcare



- 1.10.1971
- 13.600 students
- 60 Bachelor/ 20 Master
- HCM & eHealth 854
- 100 partner universities

Whom do we teach?



What do we teach?

"The delivery of healthcare services, where distance is a critical factor, by all healthcare professionals using information and communication technologies for the exchange of valid information for diagnosis, treatment and prevention of disease and injuries, research and evaluation, and for the continuing education of healthcare providers, all in the interests of advancing the health of individuals and their communities".



WHO

What do they have to know?

- General qualification for university entrance
- Alternative: examination § 66 HG
- English
- Internship healthcare facility (6 weeks)
- Internship IT (6 weeks)

→ Interest in science & healthcare

The start

- Mathematic
- Chemistry
- Informatics
- Economics
- Business arithmetics
- Medicine



Learning objectives / competence levels

- **Medicine and Nursing Care:**
 - Terminologies and medical documentation
 - Medicine, pharmacology, care
 - Medical guidelines
 - Knowledge of processes of care provision
- **IT**
 - Telemedicine, AAL
 - Data analysis, databases, network techniques
 - Programming language, software delivery skills
 - Privacy and security

Learning objectives / competence levels

- **Technology:**
 - Medical engineering
 - Medical technology: CT, MRT,...
 - Imaging systems & techniques
 - Implants and micro systems
- **Soft-Skills & Business admin.**
 - Project management (IT, QM)
 - Process management
 - Communication
 - eLearning, Usability
 - Controlling



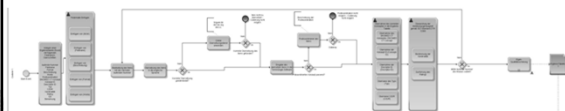
Organisation

- Fulltime
- Halftime
 - 6 semester
 - 8 semester
- DUAL
- Internship and Bachelorthesis
→ Bachelor of Science (B.Sc.)
- Master eHealth & Health Care Management

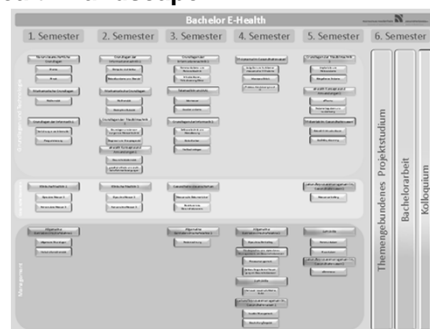


Materials and methods: How do we teach and assess?

- Practical experience, excursions
- eHealth Lab (HIS, MIS, CPOE, telemetry)
- Seminars and eLearning sessions
- Internship & Thesis



eHealth Landscape



Research projects



- Snomed CT
- LOINC
- eCI@ss
- IHE
- HL7
- GS1
- CDISC



Verbesserung der Versorgungsforschung in der Akutmedizin in Deutschland durch den Aufbau eines Nationalen Notaufnahmeregisters

Anhand von Daten aus der Notfallmedizin werden Gefahren für die öffentliche Gesundheit, wie etwa der Ausbruch von ansteckenden Infektionskrankheiten, sehr frühzeitig erkennbar. Dennoch stehen diese Daten bislang auf Bundes- und Länderebene weder in ausreichendem Umfang noch in ausreichender Qualität zur Verfügung. Wissenschaftliche Untersuchungen im Rahmen der Versorgungsforschung sind deshalb aktuell kaum möglich. Mit dem Aufbau eines Notaufnahmeregisters im Rahmen des Verbundforschungsprojekts „Aktionsbündnis für Informations- und Kommunikationstechnologie in Entzerr- und Notfallmedizin“ (ACTIN) soll sich dies ändern.

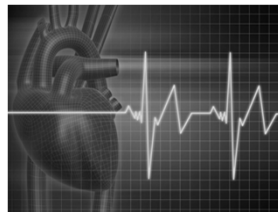
Work offers hospitals

- Billing
- Accounting (DRGs)
- Controlling
- eSupply, eCommerce
- Medical documentation
- Decision support systems (CPOE)
- Security, privacy
- Implementation and support of IT - Systems



Work offers: Telemedicine

- Telepathology
- Telesurgery
- Teledermatology
- Telediagnosics
- Telecardiology
- Teleoncology
- Telemetry
- Telemonitoring
- Teleneurology
- Telesychiatry
- Teleradiology
- Teletherapy



Work offers: authorities & others

- Gematik
- Vendors and Companies
 - Pharma
- Institutes: RKI, DIMDI
- IQWiG: Health Technology Assessment
- Integrated Care Organisations
- Insurance Companies
- Ministry of Health
- Offers all over the world (e.g. WHO)



Job Profile

- Industry
 - Projectmanager
 - Expert
- Authorities
 - Statisticians, Epidemiologist
- Research
 - Research Assistant
- Hospitals
 - Controller, Medical Documentation Specialists
 - Application Supporter
 - Process Manager
 - Risk Manager
- Pharma:
 - Monitor
 - Coordinator of Studies



Thank you



Österreichs eHealth Event | Wien | 22. - 23. Mai 2014

Prof. Dr. med. Sylvia Thun
IKT im Gesundheitswesen
Hochschule Niederrhein
 FB 10 Gesundheitswesen E-Health
 Reinarzstr. 49
 47805 Krefeld

E-Mail: sylvia.thun@hs-niederrhein.de
 Tel. +49 2151/822-6654
 Fax +49 2151/822-6660

<http://www.hs-niederrhein.de>

