



**Karolinska
Institutet**

Course syllabus for

Standardisation within Health Informatics, 5 credits

Standardisering inom hälsoinformatik, 5 hp

This course syllabus is valid from spring 2018.

Please note that the course syllabus is available in the following versions:

Spring2018 , [Spring2019](#) , [Spring2021](#) , [Autumn2021](#) , [Spring2024](#)

Course code	5HI020
Course name	Standardisation within Health Informatics
Credits	5 credits
Form of Education	Higher Education, study regulation 2007
Main field of study	Health Informatics
Level	AV - Second cycle
Grading scale	Excellent, Very good, Good, Satisfactory, Sufficient, Fail, Fail
Department	Department of Learning, Informatics, Management and Ethics
Decided by	Education committee LIME
Decision date	2017-10-25
Course syllabus valid from	Spring 2018

Specific entry requirements

Bachelor of science or professional qualification of at least 180 credits within health care, biomedicine, technology, data and software engineering or informatics. Furthermore, knowledge in English equivalent to English B (with at least the Pass grade) is required.

Objectives

The general aims of the course are to enable students to acquire knowledge and skills to choose, analyse and apply different health informatics standards to store, retrieve, represent and exchange data between different health information systems.

On completion of the course, the students should be able to:

Knowledge and understanding

- account for the importance of health informatics standards and terminologies for management of patient information,
- account for different ways to use controlled terminology for care documentation,
- account for different ways to use health informatics standards to achieve interoperability between

- health information systems, and
- explain methods to represent medical knowledge in form of standardised models.

Skills and ability

- analyse and apply different standards to represent and exchange information between different health information systems,
- chose and apply techniques to model clinical knowledge, and
- evaluate possible fields for standardisation and possible choices of standards.

Assessment ability and attitudes

- assess the possible impact of health informatics standardisation on the efficiency, effectiveness and quality of care, and
- reflect on the use of health informatics standards in different countries.

Content

- National and international standardisation organisations and initiatives
- Different levels of interoperability
- Overview over health informatics standards, coding systems, terminologies and ontologies, e.g. HL7 series of standards, OpenEHR, SNOMED CT, Continua
- Models for clinical knowledge representation

Teaching methods

Lectures, seminars, computer laboratory sessions, individual and group assignments.

Examination

Examination is based on group assignments and presentations as well as on an individual assignment. Group assignments and presentations will be graded pass/fail and the individual assignment will be graded with A-F. Final grading is done when all mandatory parts of the examination are performed.

Compulsory participation

Group assignments and their presentations are compulsory. The course director assesses if and, in that case, how absence can be compensated. Before the student has participated in all compulsory parts or compensated absence in accordance with the course director's instructions, the student's results for the course will not be registered in LADOK.

Limitation of number of occasions to write the exam

The student has the right to be examined six times. If the student has not passed the course after four examinations he/she is encouraged to visit the study advisor.

Transitional provisions

Examination will be provided during a time of two years after a possible cancellation of the course. Examination can take place according to an earlier literature list during a time of one year after the date when a major renewal of the literature list has been made.

Other directives

Course evaluation will be carried out in accordance with the guidelines established by the Board of

Higher Education. The course language is English.

Literature and other teaching aids

Benson, Tim.

Principles of Health Interoperability HL7 and SNOMED

2nd ed. 2012. : London : Springer London, 2012. - XXV, 316 p. 65 illus., 7 illus. in color.

ISBN:9781447128014 LIBRIS-ID:13427021

URL: [Table of Contents / Abstracts](#)

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Clinical Decision Support : The Road to Broad Adoption

Academic Press, 2014

LIBRIS-ID:16549930

Part IV: The Technology of Clinical Decision Support