openEHR

Fundamentals and Implementation
of the openEHR standard

the open standard for future proof health information systems

CaboLabs

Healthcare Informatics, Standards and Interoperability

Course objectives

The main goal of this course is for students to get to know the openEHR specifications, its role and purpose on health informatics projects, its scope and how it can work together with other standards. Including how openEHR contributes to improve health information systems quality, and how it enables interoperability.

Students will be instructed in the openEHR Information Model Specifications, in the Archetype Model and Archetype Definition Language (ADL) Specifications, and in Software Tools for modeling and sharing Archetypes and Templates. All these topics will be linked together with general concepts of clinical record structure, information model architectures and interoperability.

Why do we need this course?

Health information system projects are booming. Some projects had some level of success and are now very lucrative products, but most didn't have the expected impact or even failed after huge investments. This is due multiple factors, including deficient or incomplete technical proposals that do not contemplate or limit the action of the health professional, lack of standardization of health information that limits the ability to share and reuse information, a huge technological dependency created by the software industry, in-house developments or acquisitions of canned systems that are not capable of being adapted to specific needs and evolve with changing requirements of clinical information is a sustainable way.

The openEHR standard proposes solutions for some of these problems and challenges, with a completely new paradigm of designing health information systems, that empowers the health care professional making them fundamental actors in developing new health information systems, in a vendor-neutral way. The openEHR approach proposes a long term sustainable methodology, focused on clinical knowledge management, instead of focusing on technology. Systems based on openEHR have greater quality, are more generic and flexible, are designed to change and can be adapted to new requirements without huge efforts, embrace interoperability as a core feature, and is complementary to other data interchange standards like HL7 and DICOM, and terminology standards like SNOMED CT, LOINC, ICD and UCUM.

OpenEHR is not new, has more than 15 years and is the result of research projects that came before. Today it is implemented in various countries around the world and more software providers are attracted to it's paradigm to improve their products.

Who is this course for?

This course is of interest to any person with IT or clinical profiles, that work or want to work in health information system projects using a different approach, specifically for those who want to learn more about openEHR.

Syllabus

Here you can find the course modules and the correspondent list of topics.

Module	Topics
1. Introduction	+ Health information system (HIS) development process + Current approach for HIS development + Problems of current and challenges of the current approach + A fundamentally different approach with openEHR
2. openEHR and dual modeling	+ Electronic health records (EHR) + EHR requirements and clinical information uses + EHR computing platform and semantic architecture + openEHR design principles + Introduction to archetypes and templates + Dual level modeling
3. openEHR Information Model I	+ Hierarchical organization of health records + openEHR IM: hierarchical levels, compositions, sections and entries + Information model real life examples
4. openEHR Information Model II	+ openEHR IM: datatypes and demographic model + Information model real life examples
5. Archetype and Template Models	+ Archetype Model (structure, constraints and terminology) + Archetype Definition Language (ADL) + Archetype modeling process + Using clinical terminologies in archetypes
6. openEHR Tools	+ Clinical Knowledge Manager (international archetype repository) + Archetype Editor (archetype creation) + Template Designer (template creation) + CaboLabs openEHR Toolkit (tools to work with archetypes and templates)
7. Implementation Concepts	+ Strategies and good practices for openEHR implementation + Implementation examples (EHRServer, EHRGen, PsiSix, CoT)
8. Conclusion and Closing	+ Summary of the course + How to be part of the community + What are the next steps?

Modalities

This course is offered online and on-site for companies, organizations and events. To request a quote please contact info@cabolabs.com

It is also offered online with live/synchronous sessions or on-demand with pre-recorded sessions. This modality works in established periods, generally once a year. To get notification when the next enrollment period opens, sign to the Waiting List found here: https://www.cabolabs.com/education

For the online editions:

● We have a virtual campus with the materials and a forum
● We have a video-conference tool to provide the live online sessions
● All the sessions will be recorded to watch later
● All the materials needed for each module will be available before the correspondent session

In the on-demand modality, the only difference is two session recordings will be published each week.

Evaluation and Certification

This course has four optional assignments, with a total score of 100. The course is approved with 60 points.

Two kinds of certificates from CaboLabs will be delivered:

● APPROVAL: for those who got 60 or more points.
● PARTICIPATION: for those who got less than 60 points or didn't deliver the assignments.

Trainer

The course will be delivered by Pablo Pazos Gutiérrez, who designed the course taking into account the openEHR specifications and summarizing years of experience working with openEHR and clinical repositories.

Bio

Pablo is a Computer Engineer from Uruguay, specialized in the eHealth domain. Director of CaboLabs: Health Information Systems, Standards and Interoperability, and creator of the courses delivered through CaboLabs. With 15+ years of experience in eHealth, 600+ trained professionals from 16 countries.

- Computer Engineer degree, Universidad de la República, Uruguay
- Director at CaboLabs Health Informatics
- Educator at Asociación Chilena de Informática en Salud
- openEHR Ambassador for Latin America
- Coordinator at openEHR community in spanish
- Qualified Member of openEHR's programs

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