T4 – Introduction to Version 2, Part 1:  
Control and ADT  
Tuesday, September 20 / 9:00 am – 12:30 pm

This tutorial provides students with an overview of the Version 2.7 Standard Chapter 2 – Control and Chapter 3 – Patient Administration. It covers the major concepts and processes for the development and usage of the HL7 Version 2.x messaging standard defined in Chapter 2 – Control and applies this to a number of examples from Chapter 3 – Patient Administration.

This Tutorial Will Benefit:
- Those new to HL7 Version 2.7 with a need to become more familiar with the fundamentals of the HL7 standard, or as a refresher

Upon Completion of This Tutorial, Students Will Know:
- The basic function of HL7 Standard messaging components
- How to explain original and enhanced mode processing

Faculty:
Hans Buitendijk, FHL7: Director, HL7 Board of Directors; Co-Chair, HL7 Clinical Statement Work Group; Co-Chair, HL7 Orders and Observations Work Group; Senior Strategist, Standards & Regulations, Cerner Corporation

T7 – Introduction to Version 2, Part 2:  
Orders and Observations  
Tuesday, September 20 / 1:45 pm – 5:00 pm

This tutorial provides students with an overview of the Version 2 Orders and Observations messages. It describes the major concepts and provides a sampling of the type of information that can be communicated using these messages.

This Tutorial Will Benefit:
- Those new to HL7 Version 2.7 orders and observations with a need to become more familiar with these message types and segments specific to them

Faculty:
Ted Klein, MS, FHL7: Co-Chair, HL7 Vocabulary Work Group; Klein Consulting, Inc.

T5 – Attachments for Reimbursement, Authorization and Referrals: Overview for Managers, Architects and Implementers  
Tuesday, September 20 / 9:00 am – 12:30 pm

This tutorial introduces the standards and workflow for attachments between providers and payers.

This Tutorial Will Benefit:
- Managers, architects and engineers planning to implement attachments

Upon Completion of This Tutorial, Students Will:
- Understand the standards proposed to support attachments and the relationship of these standards to clinical data exchange requirements
- Be in a position to develop strategic plans that anticipate and meet the key challenges inherent in electronic attachments

Faculty:
Hans Buitendijk, FHL7: Director, HL7 Board of Directors; Co-Chair, HL7 Clinical Statement Work Group; Co-Chair, HL7 Orders and Observations Work Group; Senior Strategist, Standards & Regulations, Cerner Corporation

Tutorials at HL7 working group meetings are an additional fee to the daily meeting registration fees. Please note that tutorials listed as free still require payment of the daily meeting fee.

To register for tutorials, please select each tutorial you would like to take on page 30 of the registration form.

HL7 MEETINGS ARE GREEN: Bring your laptop to your tutorials!

To reduce HL7’s carbon footprint, its meetings are largely paperless. HL7 no longer provides printed tutorial materials on-site. All materials will be distributed electronically to tutorial participants to either print out themselves or load to their laptops. It is important that you bring your laptop to this meeting for all tutorials. Free WiFi internet access will also be provided. Please note that the materials may be in a zip format. In the event that a tablet is the only accessible device, students should download the appropriate app prior to the course to ensure their tablet can open zip files.
Tutorials

**Faculty:**
- **Liora Alschuler, FHL7:** Co-Chair, Process Improvement Committee; CEO, Lantana Consulting Group
- **Durwin Day:** Co-Chair, Payer User Group; Co-Chair, Attachments Work Group
- **Lenel James:** Senior Project Manager - Health IT, Blue Cross Blue Shield Association

**T8 – Attachments: Technical Introduction for Architects and Implementers**
**Tuesday, September 20 / 1:45 pm – 5:00 pm**

This tutorial introduces the technical standards and implementation challenges for attachments between providers and payers.

**This Tutorial Will Benefit:**
- Architects and engineers planning to implement attachments

**Upon Completion of This Tutorial, Students Will:**
- Have a fundamental understanding of the standards proposed to support attachments and the relationship of these standards to key applications required to support them
- Be in a position to develop technical strategies that anticipate and meet the key challenges inherent in implementing electronic attachments

**Prerequisites:**
- High-level understanding of payer/provider workflow for attachments and Clinical Document Architecture (CDA®)

**Faculty:**
- **Rick Geimer:** Member, HL7 Structured Documents Work Group; Chief Technology Officer, Lantana Consulting Group
- **Durwin Day:** Co-Chair, Payer User Group; Co-Chair, Attachments Work Group
- **Lenel James:** Senior Project Manager - Health IT, Blue Cross Blue Shield Association

**W10 – Introduction to Clinical Document Architecture**
**Wednesday, September 21 / 9:00 am – 12:30 pm**

The Clinical Document Architecture (CDA®) is HL7’s specification for standards-based exchange of clinical documents. CDA is based on the concept of scalable, incremental interoperability and uses Extensible Markup Language (XML), the HL7 Reference Information Model (RIM), and controlled terminology for structure and semantics. This tutorial presents the business case for CDA, its primary design principles, and an overview of the technical specification.

**This Tutorial Will Benefit:**
- New implementers, standards developers and policy makers

**Upon Completion of This Tutorial, Students Will Know:**
- The history and core principles of CDA design
- How to explain the core structures of CDA and where they are appropriately used
- The basic skills necessary to understand the CDA standard and existing CDA implementation guides

**Prerequisites:**
- Introduction to Version 3 (Part 1) recommended

**Faculty:**
- **Calvin E. Beebe, FHL7:** Co-Chair, Structure & Semantic Design Steering Division—HL7 Technical Steering Committee; Co-Chair, HL7 Structured Documents Work Group; Co-Editor, CDA; Technical Specialist, Mayo Clinic - Rochester, MN

**W13 – Consolidated CDA**
**Wednesday, September 21 / 1:45 pm – 5:00 pm**

Every ONC certified EHR must support Consolidated CDA (C-CDA). C-CDA is a document standard for communicating patient summaries between providers and patients. It is a foundational component for US Meaningful Use (MU) Stage 3 and Merit-Based Incentive Payment System (MIPS) interoperability. This tutorial provides a detailed background on the specification, explains how C-CDA builds on CDA to provide highly structured patient summaries and discusses implementation challenges and choices. The purpose of this tutorial is to prepare the student to work with C-CDAs in the field to improve healthcare interoperability.
Tutorials

This Tutorial Will Benefit:
• Software vendor stakeholders building and supporting C-CDA functionality in HIT products
• Payers interested in visit summaries
• Providers implementing and supporting C-CDA based health information exchange and patient engagement interoperability functionality
• Others interested in capitalizing on the widespread availability of C-CDA capabilities in electronic health records
• Stakeholders interested in structured document standards development

Upon Completion of This Tutorial, Students Will Be Able To:
• Effectively navigate the specification
• Identify and explain the key document types and sections
• List the latest enhancements to the standard and supporting documentation and tools.
• Use CDA templates to streamline implementation
• Locate C-CDA validation tools

Prerequisites:
• Introduction to CDA

Faculty:
Brett Marquard: Co-Chair, HL7 Structured Documents Work Group; Principal, River Rock Associates

TH16 – Driving Health Information Exchange Using XDS with CDA and FHIR
Thursday, September 22 / 9:00 am – 12:30 pm

This is a practical session on how to use IHE XDS and HL7 Fast Healthcare Interoperability Resources (FHIR®) using CDA documents as the payload and freely available open source toolkits to assist implementers. Why reinvent the wheel?

This Tutorial Will Benefit:
• Managers, architects and implementers of health exchange projects who wish to learn more about standards based health exchange

Upon Completion of This Tutorial, Students Will Know:
• Key IHE profiles that should be considered to support document exchange
• HL7 FHIR profiles also supporting document exchange
• Where to find open source tools supporting XDS and CDA in several programming languages
• The HL7 standards that these profiles use, and where to find more details about them

Prerequisites:
• Students should have a basic understanding of healthcare workflows

Faculty:
Keith Boone: Director, HL7 Board of Directors; Interoperability Guru, GE Healthcare IT

TH19 – CDA Template Design in Theory and Practice
Thursday, September 22 / 1:45 pm – 5:00 pm

In order to address requirements for healthcare data exchange, HL7’s Clinical Document Architecture (CDA®) is used. To constrain the general CDA model to specific use cases, CDA template specifications as part of implementation guides are created, published and maintained.

In this tutorial, the creation of CDA templates is shown, highlighting best practice and design principles. CDA templates on document, section and entry level are crafted. It will also cover the use of repositories like the C-CDA library for easy template re-use.

This Tutorial Will Benefit:
• Anyone who works with CDA including modelers, specification designers, analysts and implementers

Upon Completion of This Tutorial, Students Will Know:
• How to analyze use cases for CDA document design and derive CDA components
• CDA templates, design and types
• HL7’s templates STU as the base for CDA templates
• Value sets and how they are related to templates
• Best practices and strategy for design and maintenance of CDA templates, perform CDA templates creation and refinement
• How to use repositories like the C-CDA

Prerequisites:
• Basic XML skills and general knowledge of CDA

Faculty:
Kai U Heitmann, MD, FHL7: CEO, HL7 Germany; Heitmann Consulting
Rick Geimer: Member, HL7 Structured Documents Work Group; Chief Technology Officer, Lantana Consulting Group
M1 – Standards for Interoperability
Monday, September 19 / 1:45 pm – 5:00 pm

This tutorial provides a survey of the healthcare interoperability standards landscape, pointing out the main features of the terrain and how they link together to perform useful functions. It consists of three main sections covering (1) messaging standards such as HL7 Version 2 and Version 3, (2) clinical document standards such as CDA, Continuity of Care Document (CCD®), Continuity of Care Record (CCR) and IHE XDS, and (3) terminology standards, such as SNOMED CT and LOINC. It explains how and why these were developed and their complementary roles, each best suited to particular tasks.

In the time available, the treatment of each standard is necessarily brief, but this tutorial will provide an introduction to other more detailed tutorials.

This Tutorial Will Benefit:
• Relative newcomers to health interoperability who are still unsure about how everything fits together

Upon Completion of This Tutorial, Students Will Know:
• How the main healthcare interoperability standards relate to each other and which is most suited for particular roles

Faculty:
Diego Kaminker, FHL7; Co-Chair, HL7 Education Work Group; Co-Author and Coordinator, HL7 Fundamentals Course, Argentina; Chief Developer and Manager, Kern-IT SRL

M2 – Advanced Vocabulary in HL7
Monday, September 19 / 1:45 pm – 5:00 pm

This tutorial explains the governance and processes which support vocabulary and its use in HL7 standards. The appropriate use of vocabulary in health software and information exchange is important for safe, effective and unambiguous information exchange. This tutorial identifies how to correctly implement code system content into HL7 messages and content, and how to facilitate the development of code system content in HL7 standards. It covers requirements for HL7 Version 2 (V2), Version 3 (V3), CDA and Fast Healthcare Interoperability Resources (FHIR®).

This Tutorial Will Benefit:
Those involved in the implementation or development of HL7 standards, or health information systems, including:

• Those implementing vocabulary content in IT systems based upon HL7 standards
• Those participating in the Vocabulary Work Group
• HL7 Vocabulary facilitators

Upon Completion of This Tutorial, Students Will Understand:
• HL7 processes for terminology content
• Structures for vocabulary in HL7 Version 2.x
• How coded data is represented in Version 3 messages
• How to use value sets and concept domains as they apply in HL7
• The use of OIDs in HL7 vocabulary maintenance
• The tools used to maintain and implement code systems

Prerequisites:
• Vocabulary 1 or equivalent. It is expected that attendees will understand the basics of V2.x message structures.

Faculty:
Russ Hamm; Co-Chair, HL7 Vocabulary Work Group; Architect Liaison, Intelligent Medical Objects (IMO)

W11 – Implementing HL7 Standards Based Interoperability in Preparation for MACRA/MIPS and MU Stage 3
Wednesday, September 21 / 9:00 am – 12:30 pm

Meaningful Use (MU) Stage 3 of the EHR Incentive Program and the new Merit-Based Incentive Program System (MIPS) of Medicare Access & CHIP Reauthorization Act (MACRA) require implementing ONC 2015 certified health IT and using it to achieve interoperability goals including:
• Engaging patients by providing them access to their information using portals and APIs
• Exchanging data between providers
• Communicating with public health authorities and registries
• Electronically submitting quality measure data

All of these functions utilize HL7 standards. The regulations require or encourage providers to meet high thresholds on interoperability objectives using numerous HL7 standards including the Consolidated CDA (C-CDA) for patient and provider communication, API access (likely using FHIR), Quality Reporting Document Architecture (QRDA) for e-submission of quality measures, and Version 2-based implementation guides for public health. This tutorial will explain the use of HL7 standards to achieve each interoperability goal of the regulations.
This Tutorial Will Benefit:
• Providers implementing ONC 2015 certified technology to satisfy MU Stage 3 or MACRA/MIPs regulations in the US domain
• Vendors working on development and certification of ONC 2015 certified technology
• Other stakeholders that could benefit in utilizing interoperability features of ONC 2015 certified technologies and the HL7 standards they employ

Upon Completion of This Tutorial, Students Will Be Able To:
• Identify and explain how HL7 standards are used to meet healthcare interoperability regulatory goals in the US domain
• Discuss implementation considerations in utilizing HL7 standards to meet the MU and MIPS objectives

Faculty:
Virginia Lorenzi, FHL7: Co-Chair, HL7 Education Work Group; Manager-HIT Standards and Collaborations; New York-Presbyterian Hospital
Hans Buitendijk, FHL7: Director, HL7 Board of Directors; Co-Chair, HL7 Clinical Statement Work Group; Co-Chair, HL7 Orders and Observations Work Group; Senior Strategist, Standards & Regulations, Cerner Corporation

W14 – HL7 Hot Topics – Healthcare Challenges, Technological Advances and HL7’s Response
Wednesday, September 21 / 1:45 pm – 5:00 pm

Discover how the HL7 community is capitalizing on current and future technology to solve the serious problems of healthcare of today and tomorrow. This tutorial spotlights 10 different trending topics in technology or healthcare and discusses how HL7 is involved. The class will be spotlighting the following topics:

1. Outbreaks
2. Cyber-attacks
3. Treating cancer
4. Personomics
5. The cloud
6. Mobile health
7. Innovation
8. Patient-centered care
9. EHR usability
10. The learning health system

This Tutorial Will Benefit:
• Newcomers to HL7
• Current and new attendees interested in a breadth view of the standards with respect to current events

Upon Completion of This Tutorial, Students Will Be Able To:
• Describe several hot topics in health and technology
• Summarize and evaluate how HL7 is connected to each topic
• Engage in specific HL7 initiatives
• Implement solutions for technologies or problems using HL7
• Explore other ideas of how HL7 can help solve the problems of healthcare

Faculty:
Virginia Lorenzi, FHL7: Co-Chair, HL7 Education Work Group; Manager-HIT Standards and Collaborations; New York-Presbyterian Hospital

TH17 – Introduction to Health Quality Measure Format
Thursday, September 22 / 9:00 am – 12:30 pm

Clinical Quality Measures (CQMs) help in measuring the quality of healthcare provided to a patient. The Health Quality Measures Format (HQMF) is HL7’s specification for defining the structure and content of a CQM. It is based on the HL7 Reference Information Model (RIM) as is CDA, but uses that model to define all the information necessary to compute a quality measure and produce a mathematical result. This tutorial serves as an introduction to HQMF Release 1 and 2 and their design and use in quality measurement. It covers the HQMF R2 architecture as well as the technical specification, the role it plays in the quality measurement space and its relationship to other quality measurement standards, including the HL7 QDM-based HQMF R2 implementation guide (a US-realm guide for HQMF).

This Tutorial Will Benefit:
• New implementers, measure developers, policy makers, standards developers

Upon Completion of This Tutorial, Students Will Know:
• The history and design of HQMF R1 and R2
• How to explain the structure of an HQMF R2 document and a clinical quality measure
• The HQMF R2 standard and its related implementation guides
• How HQMF R2 fits into the clinical quality workflow

Faculty:
Chris Millet: Co-Chair, Clinical Quality Information Work Group; Co-Founder and CEO, Lazy
TH20 – Quality Reporting Document Architecture
Thursday, September 22 / 1:45 pm – 5:00 pm

The Quality Reporting Document Architecture (QRDA) is one of HL7’s premier standards for quality reporting, particularly for capturing various kinds of quality reports. QRDA builds off of the growing Clinical Document Architecture (CDA®) standard. This tutorial will cover the structure of the QRDA specification, demonstrate how QRDA relates to other HL7 standards such as CDA and the Health Quality Measures Format (HQMF), and show how QRDA is being used and adopted in the United States.

This Tutorial Will Benefit:
• Implementers looking to generate quality reports using QRDA

Upon Completion of This Tutorial, Students Will Understand:
• The different kinds of quality reports that can be represented using QRDA
• The structure of the QRDA Category 1 and QRDA Category 3 specification
• How to apply program specific guidance to the HL7 QRDA standard
• How QRDA relates to HQMF

Faculty:
Chris Millet: Co-Chair, Clinical Quality Information Work Group; Co-Founder and CEO, Lazy

F1 – FHIR Update and Coordination Session – FREE TUTORIAL FOR CO-CHAIRS AND FACILITATORS ONLY
Sunday, September 18 / 3:30 pm – 5:00 pm

This session is for co-chairs, facilitators and other key individuals driving the development of FHIR artifacts within HL7 work groups. The session will include updates on the current set of tooling, any changes to methodology or QA processes, timelines, etc. The session will also provide a forum for discussion of cross-WG issues and general FHIR-related questions arising from work group development.

Faculty:
Grahame Grieve, FHL7: FHIR Product Director, HL7 International; Co-Chair, HL7 FHIR Infrastructure Work Group; Member, HL7 FHIR Governance Board; Co-Chair, HL7 Modeling and Methodology Work Group; Modeling and Methodology Facilitator, HL7 Infrastructure and Messaging Work Group; Consultant, NEHTA; National Development Manager, Health Intersections Pty Ltd
**Tutorials**

**M3 – Introduction to HL7 FHIR**
Monday, September 19 / 1:45 pm – 5:00 pm

FHIR (Fast Healthcare Interoperability Resources) is the newest healthcare interoperability standard offered by HL7, providing domain friendly wire formats compatible across the document, messaging, services and RESTful paradigms. This tutorial is for those who want to learn more about FHIR, what it can do and how their organization might best take advantage of it.

**This Tutorial Will Benefit:**
- Analysts, vendors, and project managers

**Upon Completion of This Tutorial, Students Will Be Able To:**
- Explain the main principles underlying the FHIR methodology
- Describe the characteristics of a FHIR resource and understand the contents of a resource definition
- Understand the relationship between FHIR and other HL7 standards such as Version 2, Version 3 messaging and CDA
- List some of the key FHIR infrastructure resources and explain how they are used to support the four FHIR interoperability paradigms
- Help their organization to determine if, when, where and how they might implement FHIR

**Faculty:**
*Eric M Haas, MS, DVM: President of Health eData Inc; Haas Consulting*

**T6 – FHIR for Architects**
Tuesday, September 20 / 9:00 am – 12:30 pm

FHIR is attracting a great deal of attention as the next great thing in healthcare interoperability. This course will help participants understand where and how FHIR might fit into their healthcare interoperability environment and provide them with the tools they need to make judgments about when or if FHIR might be an appropriate solution for their healthcare IT needs.

**This Tutorial Will Benefit:**
- Architects, technical managers and other healthcare IT decision-makers involved in solution design

**Upon Completion of this Tutorial, Students Will be Able To:**
- Explain how FHIR may be used in different interoperability paradigms
- Describe how FHIR can fit in different locations in the architectural stack

- Identify architectural considerations that apply to FHIR and determine how best to address those in their own FHIR solutions
- Explain where and how profiles fit into an architectural solution
- Give guidance on if, when and how FHIR might be used within their own organization

**Prerequisites:**
- Introduction to FHIR or basic familiarity with the FHIR standard and concepts
- Some knowledge of healthcare IT architecture could also be useful

**Faculty:**
*Lloyd McKenzie, PEng: Co-Chair, HL7 FHIR Infrastructure Work Group; Member, FHIM Management Group; Co-Chair, HL7 Modeling and Methodology Work Group; Modeling and Methodology Facilitator-at-Large; Principal Consultant, LM&A Consulting Ltd.; Senior Consultant, Information Technology Services, Gevity Consulting Inc.*

**T9 – FHIR for Specifiers**
Tuesday, September 20 / 1:45 pm – 5:00 pm

FHIR provides a set of building blocks from which interoperability solutions can be created. Profiles combine those blocks into solutions, serving a similar purpose to implementation guides, templates, archetypes and detailed clinical models associated with other HL7 standards. This tutorial will demonstrate how to use profiles to shape the FHIR core specification for use in a specific national, regional or organizational context.

**This Tutorial Will Benefit:**
- Data modelers, standards developers and HL7 Version 3 template authors who want to start using FHIR

**Upon Completion of This Tutorial, Students Will:**
- Understand what the FHIR conformance layer is and how it is used to profile FHIR for a specific context or use case
- Know the principal profiling components of the FHIR conformance layer
- Understand the available FHIR conformance resources (structure definition, operation definition, search parameter, value set, concept map)
- Understand how domain information requirements translate to conformance resources
- Know the role conformance resources are used to compose an implementation guide
• Write a FHIR value set and structure definition for a single resource
• Know where and how to register and find existing conformance resources

**Prerequisites:**
• Introduction to HL7 FHIR

**Faculty:**
*Michel Rutten*: Technical Specialist, Furore; Lead Developer of Forge FHIR Profile Editor

---

**W12 – Introduction to FHIR Development**
Wednesday, September 21 / 9:00 am – 12:30 pm

This tutorial provides an in-depth look into the infrastructure sections of the FHIR specification. It will also cover how to design, develop and test software that uses the FHIR interoperability standard—all the way from the wire-format up to validation and storage.

**This Tutorial Will Benefit:**
• Software developers, team leads, and infrastructure architects

**Upon Completion of This Tutorial, Students Will:**
• Understand how resources align with object-oriented and other common software-engineering principles
• Be able to list the four of interoperability paradigms supported by FHIR
• Understand the FHIR REST service operations and how to implement them
• Understand how the Atom, Xml and JSON wire formats are used in FHIR
• Understand versioning and bundles
• Compare strategies for using object models, validation and (de)serialization
• Use relational or document-oriented storage for persistence of resources
• Understand how to implement search functionality
• Know and use the provided reference implementations

**Prerequisites:**
• An Introduction to HL7 FHIR

**Faculty:**
*David Hay, MD*: Member, FHIR Management Group; Chair, HL7 New Zealand; Product Strategist, Orion Healthcare

---

**W15 – Understanding and Using Terminology in HL7 FHIR**
Wednesday, September 21 / 1:45 pm – 5:00 pm

Terminology is a required foundational component for interoperable data exchange in FHIR and other clinical data standards. This tutorial takes a deeper look at the use of standard terminologies within FHIR artifacts (datatypes, resources, profiles, etc.). The structures and use of the primary FHIR terminology resources, operations and coded data types are covered, including how these terminology artifacts and capabilities are used in support of coded elements in other FHIR resources and profiles. The tutorial will also discuss how terminology content and capabilities are made accessible and usable within a FHIR Terminology Service. Live examples from FHIR terminology servers will be used where possible to examine and illustrate the concepts.

**This Tutorial Will Benefit:**
• Standards developers, implementers, terminologists, data modelers and architects

**Upon Completion of This Tutorial, Students Will Understand:**
• How code systems, value sets and related vocabulary artifacts and principles are applied within the FHIR terminology resources and datatypes
• How the FHIR terminology resources and datatypes support the needs for coded data in other FHIR resources and profiles
• How to use the primary FHIR terminology resources, data types and operations for creating specifications and implementing solutions that interoperably represent and exchange coded data
• The typical capabilities and usage scenarios of a FHIR terminology service

**Prerequisites:**
• Introduction to HL7 FHIR (or equivalent familiarity with the FHIR standard and concepts)
• Introduction to Vocabulary in HL7
• Basic familiarity with one or more standard healthcare terminologies or classifications (e.g., SNOMED CT, LOINC, ICD-10) and terminology artifacts (e.g., code system, value set, mapping)
• FHIR for Specifiers (optional, but may be helpful)

**Faculty:**
*Rob Hausem, MD*: Co-Chair, HL7 Orders and Observations Work Group; Co-Chair, HL7 Vocabulary Work Group; Vocabulary Facilitator for the HL7 Orders and Observations and Structured Documents Work Groups; Principal, Hausam Consulting LLC
TH18 – Precision Medicine via FHIR: 
From Design from Deployment
Thursday, September 22 / 9:00 am – 12:30 pm

FHIR enables a new class of clinical genomic apps for precision medicine. This tutorial will introduce FHIR genomics and take attendees through the creation and deployment of a clinical genomic app.

This Tutorial Will Benefit:
• IT professionals, developers, EMR vendors and clinicians

Upon Completion of This Tutorial, Students Will Be Able To:
• List use cases for clinical genomic apps
• Understand how FHIR genomics enables clinical genomics
• Use FHIR to create a simple clinical genomic app
• Deploy a simple FHIR clinical genomic app

Prerequisites:
• There are no prerequisites for this tutorial; relevant FHIR terminology will be introduced

Faculty:
Gil Alterovitz, PhD: Co-Chair, HL7 Clinical Genomics Work Group; Assistant Professor, Harvard Medical School; Core Faculty, Computational Health Informatics Program, Boston Children's Hospital

F3 – Understanding the HL7 International Organization – From Process to Governance – FREE TUTORIAL
Sunday, September 18 / 4:00 pm – 5:00 pm

This session will provide an overview of HL7 International from the governance structure to the work groups.

This Tutorial Will Benefit:
• First-time attendees and anyone interested in learning more about the processes and organization of HL7 International

Upon Completion of This Tutorial, Students Will Know:
• How HL7 International is structured
• The types of products that HL7 International produces
• The subject domains that HL7 standards cover
• The working group meeting format
• How HL7 International ballots

Faculty:
Calvin E. Beebe, FHL7: Co-Chair, Structure & Semantic Design Steering Division—HL7 Technical Steering Committee; Co-Chair, HL7 Structured Documents Work Group, Co-Editor, CDA; Technical Specialist, Mayo Clinic - Rochester, MN

F4 – Tutorial Development Workshop – FREE TUTORIAL
Sunday, September 18 / 5:00 pm – 6:00 pm

This is a free session for those who develop or deliver HL7 tutorials and are looking for guidance on how to make improvements or get assistance with the development of training specifications or plans and materials. Please plan to bring your ideas, issues and documents with you.

This Tutorial Will Benefit:
• Tutorial presenters and developers

Upon Completion of This Tutorial, Students Will Be Able To:
• Submit quality tutorial proposals and plans
• Improve presentations in HL7 tutorial
• Improve learning outcomes of HL7 tutorials

Prerequisites:
• How to Design and Deliver an HL7 Tutorial
F6 – An Introduction to HL7 for Government – FREE TUTORIAL
Monday, September 19 / 12:30 pm – 1:30 pm

This session is designed for all government employees, from novice to expert, to learn about what federal partners are present in HL7, the kind of work that has and can be done in HL7, and to meet and consider opportunities to collaborate across the government with HL7. Rather than focusing on what HL7 does, it will focus on how to be successful in advancing government work through stakeholder collaboration and consensus-based standards development. Students will first hear from HL7 experts about the existing work and tips for future success from some key stakeholders. There will also be an opportunity to engage in a government roundtable, introducing each participant, their agency’s work in standards, and discuss opportunities for collaboration and success at the HL7 Baltimore meeting and beyond.

Faculty:
Julia Skapik, MD: Medical Officer, Office of Standards & Technology, ONC

F7 – Glossary Management-Defining and Managing the Terms Used by Healthcare SDOs – FREE TUTORIAL
Tuesday, September 20 / 7:00 am – 8:00 am

This tutorial provides an overview of the international health standards knowledge management tool (SKMT) to introduce attendees to the resource (find standards, find terms and definitions) and how it can make standards development, use and health informatics documentation in general easier and more consistent.

This tutorial also demonstrates how to retrieve, enter and update information in the SKMT, and introduces the process for harmonization across SDOs internationally and how HL7 engages with this process.

This Tutorial Will Benefit:
• Standards developers
• Those who use and work with the terms, concepts used by healthcare standards
• Those who wish to know about projects and publications of other SDOs to improve harmonization and reduce duplication of effort

Upon Completion of This Tutorial, Students Will Be Able To:
• Explain the purpose and utility of the SKMT
• Know how to find and register for access to the SKMT
• Explain the process for maintenance of the content for HL7 in the tool including SDO harmonization trials
• Apply the guidelines for development of quality definitions

Faculty:
Heather Grain, AssocDip MRA, GDip IS, MHI, MACS, FACHI, Cert IV Training and Education: Co-Chair, HL7 Vocabulary Work Group, Convenor ISO WG3-Semantic Content; Member IHTSDO Quality Assurance Committee and Education SIG; Chair-Standards Australia Health Informatics Committee (IT 14), Australia

F8 – How to Design and Deliver an HL7 Tutorial – FREE TUTORIAL
Wednesday, September 21 / 7:00 am – 8:00 am

This is an information session which introduces design and delivery of HL7 tutorials and provides tools and resources to assist in these tasks. The course will assist in production of focused, outcome driven educational activities.

This Tutorial Will Benefit:
• Anyone who delivers or intends to deliver or develop tutorial information for HL7

Upon Completion of This Tutorial, Students Will Understand:
• The need to identify appropriate content and methodology to meet stakeholder need
• How to develop of competencies to meet need
• How to identify expected background of learners
• What a learning plan needs to contain, breaking content into defined timeslots and identified resources/exercises
• Delivery methods and assessment methods and tools
• The need to measure assessment and content against competencies
• How to prepare proposal for HL7 education
• How to undertake basic tutorial quality review

Faculty:
Heather Grain, AssocDip MRA, GDip IS, MHI, MACS, FACHI, Cert IV Training and Education: Co-Chair, HL7 Vocabulary Work Group, Convenor ISO WG3-Semantic Content; Member IHTSDO Quality Assurance Committee and Education SIG; Chair-Standards Australia Health Informatics Committee (IT 14), Australia
F9 – GS1 Standards for Supply Chain Meets HL7 – FREE TUTORIAL
Wednesday, September 21 / 7:00 am – 8:00 am

This session will provide insight on what GS1 provides in the open supply chain to secure item traceability, and how traceability should be extended in provider’s internal supply chain. The tutorial will be based on a document which provides extensive information about traceability, by including “order to cash”, master database (shared catalogues), stock management, including for consignment products, etc.

The session will strongly focus on EPC IS (electronic product code information service), which is one of the GS1 standards and how it enables event tracking. It will also include a brief introduction to the UNSPSC (United Nations Standard Products and Services Code), a classification system increasingly used in the healthcare industry.

Documentation
• The reference documentation should be downloaded prior the tutorial from: http://bit.ly/297YIiK
• It is also useful to have consulted the following documentation:
  ◦ Information about EPC IS: www.gs1.org/epcis
  ◦ Information about UNSPSC: www.unspsc.org

This Tutorial Will Benefit:
• HL7 experts who are interested in learning about GS1 and its use in the healthcare industry. Key words: UDI, falsified medicines, event management; subject of care identification, location identification, item identification
• HL7 experts from most of the work groups where physical identification plays a role – such as Patient Administration, Patient Care, Health Care Devices, Pharmacy and many others

Faculty:
Christian Hay: GS1 Switzerland; Delegate Healthcare