CHIP-725 Electronic Health Records
Randall Blanco
Tuesdays 6:00PM – 8:30PM
Instruction mode: Remote Only-Synchronous via Zoom
Carolina Health Informatics Program (CHIP)
University of North Carolina at Chapel Hill

Course Description
Healthcare has changed dramatically in the last few years whereby the use of digital tools and platforms is no longer an option but a basic requirement to offer optimal services to patients and support the day-to-day operations.

A key driver has been the move toward an analytics-anchored organization, often referred to as the learning health system, which implies a sustained development of an organization based on smart use of evidence across full-range of the care organization. A basic pre-requisite for evolving toward a learning organization is comprehensive, continuous, and accurate data collection; and transforming such data into information used for decision making.

Electronic Health Record Systems (EHRSs) hold real-word data that – by applying data analysis, provide data-insights to use in data-driven decisions – not only in the clinical domain, but in other domains – including operational, public health, patient care, quality improvement, pharma/medical device development, forecasting, and clinical research.

In this class, we will take a look at the EHR Ecosystem – and we will study multiple aspects related to the EHR – including data models, EHR data sets, healthcare data standards, quality improvement, clinical research, patient care, and overall data flows within the EHRS. We will study the process to derive specific data sets from EHR Data to be used for quality/process improvement, and clinical research; and, in general, study methods and tools within the Data Pyramid to move from EHR Data to Information, Knowledge, and Wisdom.

Objectives include learning about the following areas:
- EHR systems data architectures, data structures, and system/data work-flows
- Data management, data warehouses, and analytics platforms
- Clinical decision support and link to evidence-based care
- Secondary use of data, quality assessment and improvement, and research use of data
- Governance and medical data security
- Practical experience with EHR tools and applications.

Course Requirements:
- 50% Project (Group Effort)
  - 25% Topic Selection & Initial Project Presentation
  - 25% Final Project Presentation
- 25% Take-home final exam
- 25% Class Participation (active participant during classes)
Grading Schemas:

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Recommended books:

Honor Code:
All students are expected to follow general classroom decorum and respect the rights of everyone to have a safe and collegial environment for learning. Violations of general academic practices and norms will not be tolerated. Please refer to the Carolina Honor system to learn more about basic academic expectations at UNC at Chapel Hill: https://studentconduct.unc.edu/honor-system

Contact Information:
Randall Blanco
e-mail: randall_blanco@unc.edu
mobile: (919) 448-4592