Workflow Redesign Specialist Course Outline:

**Week 1 Electronic Health Records**
- Definitions of an electronic medical record (EMR) and electronic health record (EHR)
- Identify attributes and functions of an EHR
- Industry issues surrounding EHR adoption and implementation
- Impact of EHRs on patient care
- Perspectives on Health Information Exchange (HIE) and the Nationwide Health Information Network (NHIN) and their impact on health care delivery and the practice of health care providers.
- Governmental efforts related to EHR systems including meaningful use of interoperable health information technology and a qualified EHR
- Institute of Medicine’s vision of the future health care system
- Effects of developments in bioinformatics on health information systems

**Week 2 - Clinical Decision Support Systems and Administrative, Billing, and Financial Systems**
- Definition of a clinical decision support system
- History and evolution of clinical decision support systems
- Dimensions of a clinical decision support system
- Relationship of clinical practice guidelines and evidence-based practice to clinical decision support systems
- Challenges and barriers in building and using clinical decision support systems
- Legal and regulatory technologies affect the use of clinical decision support systems
- Future directions for clinical decision support systems
- Health care organizations strategies to ensuring integration of front-end clinical data collection and back-end billing functions
- Integrated billing and financial and clinical systems requirements
- Role of automation tools in health information systems
- Definition and core elements of a master patient index
- Current trends in establishing a national or universal patient identifier
- Data analysis and trending

**Week 3 - The Effective HIT System, Potential Issues with Adoption and Installation of an HIT system**
- Effective Health Information Technology
- Characteristics of Effective Heath Information Technology system
- Supporting Workflows
- Why Systems Fail
- Critical Success Factors in HIT Adoption/Implementation
- Common Challenges
- Potential Strategies

**Week 4 - Leading and Facilitating Change, Process Change Implementation and Evaluation**
- Human components of change and coping with change
- Key change concepts
- Participative methods of working with groups to lead and facilitate change
- Common process changes
- Implementation plan components
- Communication for implementation
- Common implementation problems
- Evaluating the new process

**Week 5 - Building Order Sets**
- Building Order Sets
Week 6 - HIT Design to Support Teamwork and Communication, Electronic Health Records and Usability

- Communication and care coordination
- Barriers of HIT
- Tools to enhance communication and care coordination
- Electronic Health Records and Usability
- Usability, training and implementation
- Special case of computerized physician order entry
- Effects of and effects with technology
- EHRs and user-centered design
- Web 2.0 and novel concepts in system design
- Evaluating EHRs
  - Usability inspection
  - Heuristic evaluation
  - Usability testing
  - Focus groups

Week 7 - Effective Management of Teams

- Aspects that determine successful teamwork.
- Twelve components ("C’s") for team building.
- Conflict and identify the various types of conflicts that can occur within teams.
- Symptoms and appropriate solutions to team conflict.
- Strategies utilized in resolving conflict.

Week 8 - People and Technology, Studies of Technology, Computer Security

- People and Technology, Studies of Technology
- Usability and Human Factors Introduction
- Good Design and Poor Design
- Introduction to the studies of technology and Human-Computer Interaction
- Norman’s Theory of Action and Design of Everyday Things
- Introduction to user-centered design
- Common security concerns (viruses, worms, etc.).
- Safeguards against common security concerns, including firewalls, encryption, virus protection software and patterns, programming for security, etc.
- Security concerns for wireless networks and how to address them.
- Security concerns/regulations for health care applications.
- Security safeguards used for health care applications.