Clinician/Practitioner Consultant Course Outline:

**Week 1 - Hardware and Software Supporting Health Information Systems, Electronic Health Records**
- Major hardware and software components used in computer systems
- Types of network configurations
- What is an information system? What are its characteristics?
- Types of information systems that support the health care enterprise requirements
- The technologies that support health care information systems
- Challenges with the use of emerging information technology trends
- Advantages and disadvantages of the Internet as a platform for health care applications
- 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, Consumer Health Informatics**
- 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
- Definition of personal health records
- Role of PHRs and their implications within health care
- Definition of health consumerism
- Benefits of consumerism in health information systems
- Challenges of consumerism in health information systems
- The impact of the Internet on consumer health informatics
- Current and emerging technologies affecting consumer health informatics
- Role of genomics in consumer health informatics

**Week 3 - Hardware Communication, Supporting standards for EHR applications**
- Select appropriate network media types (such as Ethernet and Wireless) to facilitate networking and data exchange, taking into account access and regulatory requirements
- Select appropriate hardware devices (such as routers, switches, and access points) to facilitate networking and data exchange, taking into account access and regulatory requirements
- Identify and discuss a family of clinical decision support standards, including Arden Syntax, Clinical Guideline standards, and the Infobutton
- Discuss single sign-on standards and the HL7 Clinical Context Object Workgroup (CCOW) standard
- Define and discuss regulatory standards, standards enhancing patient safety, including reporting requirements
- Bar code standards
- Master patient index, patient registries, and record locating standards
Week 4 - Protecting Privacy, Security, and Confidentiality in HIT Systems, Potential Issues with Adoption and Installation of an HIT System

- Effective HIT
- Characteristics of Effective HIT
- Supporting Workflows Why Systems Fail
- Critical Success Factors in HIT Adoption/Implementation
- Common Challenges
- Potential Strategies

Week 5 - Building Order Sets
- Building Order Sets

Week 6 - HIT Design to Support Teamwork and Communication
- Communication and care coordination
- Barriers of HIT
- Tools to enhance communication and care coordination

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 - 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