Health Informatics Certificate Program (AMIA 10x10)

Course Syllabus

TERM	Spring 2020
COURSE DESCRIPTION	Welcome to the VA Health Informatics Certificate Program (AMIA 10x10) This certificate program provides VA staff with a broad survey of the field of Health Informatics. Content is delivered as a web-based course composed of taped lecture presentations supplemented by skill-building exercises in an online, faculty led learning environment. Students who successfully complete all requirements of the course will receive an American Medical Informatics Association (AMIA) 10 x 10 certificate.
COURSE GOALS AND OBJECTIVES	**Course Goals** The Health Informatics Certificate Program is designed to increase the informatics literacy in the VA and to develop a cadre of VA informatics leaders who can accelerate, implement and support Health Information Technology innovations to improve health care delivery. **Course Objectives** • Explore how technology can be used to improve health care delivery in health care organizations and in public health. • Acquire depth and breadth of knowledge of the principles of health informatics. • Provide a conceptual and theoretical framework of the design, development, and implementation of health information systems.
COURSE PREREQUISITES	There are no prerequisites to this course and no course fees or tuition requirements for the Certificate Program. The course is presented at a graduate school level and will require that level of attention.

COURSE FORMAT

The course is divided into eight modules, each containing multiple lectures delivered in a distance learning format. The pre-recorded video presentations feature many nationally and internationally known informatics leaders addressing topics that provide the core didactic learning. These topics are based on the AMIA Board White Paper Core Content for the Subspecialty of Clinical Informatics. J Am Med Inform Assoc 2009;16(2):153-57

Lectures average one hour in length. Students will be expected to review each lecture and successfully complete the associated post-test and course evaluation.

The course is designed to encourage interaction and collaboration between participants and faculty, as well as ensure timely completion of all requirements within the appropriate timeframe.

Students will be required to complete homework assignments and projects relevant to the general content areas presented.

Assignments are broad ranging, including activities such as participation in discussion boards, conducting workflow analyses, developing evidence based decision support tools, writing papers and/or completing a health informatics project.

Some of the modules include assignments which will be completed through the collaborative learning process. Each student is assigned to a group that will remain consistent throughout the course.

Students will be required to complete a final project on a topic that is relevant to the VA as an organization. We encourage students to advocate with local leadership for participant to attend one face to face meeting in November at the AMIA Annual Symposium.

Students will receive guidance and feedback on assignments from faculty moderators. Total number of hours anticipated for students to complete the course is estimated at 120 - 150 hours.

The necessary materials for each of the eight modules will be available on the course website, including:

- Pre-Recorded Video Lectures (available on TMS)
- Required Readings and Learning Activities such as discussion boards and skill building assignments
- Faculty View Videos and documents - discussion of course content and its relevancy to the VA
- Occasional collaborative group work with fellow students
- Optional Readings and Resources

COURSE DATES AND TIMEFRAMES

We recognize that students have many time pressures. However, in order to complete the course, participants must make every effort to stay on schedule. Students are expected to complete module assignments by the due date specified or the end date of the module. The course dates are listed in the table below. Extenuating circumstances should be discussed with the Course Director: Elizabeth.Chapman@va.gov

Module	Topic	Weeks (27 Total)	Start Date	End Date	Other Important Dates
Introduction and Orientation		1	January 6	January 13	
1	Fundamentals of Health Informatics	2	January 14	January 27	
2	Evidence-based Patient Care	3	January 28	February 17	
3	Clinical Workflow Analysis, Process Redesign, & Quality Improvement	3	February 18	March 9	
4	Human Factors Engineering	2	March 10	March 22	
BREAK		1	March 23	March 30	
5	Data Standards	2	March 31	April 13	Project Topic Approval Due April 27
6	Clinical Decision Support	5	April 14	May 18	
7	Information System Lifecycle	4	May 19	June 15	Project Reports Due June 15
8	Leading and Managing Change	4	June 16	July 17	
AMIA Annual Symposium – In-Person Session in Chicago. (Contingent on external conference approval in accordance with relevant requirements and availability of travel funding from local facility.)			Nov 14, 2020- Nov 18, 2020 Travel dates vary from Nov 11 – Nov 19		

FINAL PROJECT AND PRESENTATION

Students must complete a final project and presentation to obtain the AMIA 10x10 Certificate. The goal of the final project is to identify an informatics problem in your local setting (e.g., where you practice or work) and propose a solution based on what is known from informatics research and best practice. The project is intended to encourage creative thinking and problem solving and does not require implementation of proposed software solutions or other major organizational changes.

If you do not have access to a health care setting, you can do a project based on an issue in another setting, such as a Program Office or VISN.

Samantha B. Miles, MSN, RN-BC serves as faculty advisor and is available to help identify a meaningful issue for your project and for consultation throughout the program.

- Students are required to submit a project proposal and obtain approval for the project topic and plan. This will be submitted to Dr. Garvin through Moodle.
- The final project should be documented in an Abstract and a succinct 2-3 page Executive Summary that describes the problem and proposed solutions, including references that justify the framing of the problem.

Each student will present his/her project to a small group of 8-10 students and faculty at the In-person session at the AMIA Annual Symposium, contingent on funding from local facility. Alternate arrangements will be made for presentations if necessary.

COURSE GRADING

There are a maximum of 350 points for the course. The course will be graded as Pass/Fail based on the number of points you earn for your work in each module, the final paper and presentation.

The minimum passing point value is 245 or 70%.

Grade Item	Max Points
Module 1: Fundamentals	20
Module 2: Evidenced-Based Practice	30
Module 3: Clinical Workflow Analysis	30
Module 4: Human Factors	20
Module 5: Data Standards	20
Module 6: Clinical Decision Support	50
Module 7: Information Systems Lifecycle	40
Module 8: Leading and Managing Change Lectures	40
Module Subtotals	250
Final Project	75
Final Project Presentation	25
Course Total	350

Course Director: Elizabeth Sears Chapman, MS, CPHIMS: Ms. Chapman is the Competency Lead for the Workforce Development Team within the Applied Informatics section of the Clinical Informatics and Data Management Office (CIDMO). She has a Masters in Health Policy and Management from Harvard School of Public Health and over 35 years of experience in the VA in various management and Informatics roles.
E-mail: Elizabeth.Chapman@va.gov   Phone: 803-608-7012

Faculty Advisor: Samantha B. Miles, MSN, RN-BC
E-mail: Samantha.Miles@va.gov   Phone: 901-523-8990 ext 6023

Faculty Moderators: Faculty Moderators will be available to facilitate discussions and answer questions for each module via Moodle discussion forums. Additionally, you can post content questions on Moodle to Faculty and Teaching Assistants. Please refer to the table for the corresponding Faculty Moderator for each Module.

Teaching Assistants
Kathleen Kane, MS, RN - BC, PMP
Jennifer Kalman, MBA, CPHIMS
Danielle E. Marano, MSN, RN - BC

Faculty Moderator	Module
Diane Montella, MD	Module 1: Fundamentals of Health Informatics
Rose D. Dooley-Stancil, DNP, RN	Module 2: Evidence-based Patient Care
Carrie DeKorte, Carrie DeKorte, PharmD, FACHE, VHA-CM, LHCBB, CMTC	Module 3: Clinical Workflow Analysis, Process Redesign, & Quality
Ross Speir, PhD (ABD) Scott Wood, PhD	Module 4: Human Factors Engineering
Sarah A. Maulden, MD, MS Sarita Keni, MD, MA John Kilbourne, MD	Module 5: Data Standards
Jonathan Bagby, MSN, MBA, RN-BC Arthur Wallace, MD Rob Silverman, PharmD	Module 6: Clinical Decision Support
Pawan Goyal, MD, MHA, FHIMSS, CPHIMS	Module 7: Information System Lifecycle
Laura Kroupa, MD	Module 8: Leading and Managing Change

EXPECTATIONS & TIME COMMITMENT	This course will require approximately twelve hours per week. Upon completion, 138 general education hours will be documented in TMS. Continuing Education Units (CEU) and Continuing Medical Education (CME) are available for the videotaped lectures completed in TMS. No academic credit hours are available.

You will need to budget time to:

- Complete the video lectures and take the post-test and evaluation
- Complete required readings
- Complete the Faculty View
- Complete required learning activities

You are expected to:

- Learn how to navigate the course website
- Learn how to navigate required VA systems
- Keep abreast of course announcements
- Let the Faculty Moderator know if you are having difficulties with the material
- Let the Teaching Assistants know if you are having technical difficulties
- Be an active participant in discussion boards and other group activities
- Complete all homework assignments to the best of your ability
- Complete reviews of materials by the due dates
- Ask questions if something is unclear
- Use proper spelling and grammar in all assignments

Academic Integrity

The homework, knowledge checks, and applied project are for you to demonstrate that you have learned the course material. It is expected that you will properly cite any references or works that are not your own. You are expected to honor intellectual property rights such as copyrights and trademarks.

When citing the work of others, please use the Modified Vancouver Style. The National Library of Medicine offers an online book to help you choose the proper format for your citation: Patrias K. Citing medicine: the NLM style guide for authors, editors, and publishers [Internet]. 2nd ed. Wendling DL, technical editor. Bethesda (MD): National Library of Medicine (US); 2007 – [updated 2011 Sep 15; cited 2012 Nov 30]. Available from: http://www.nlm.nih.gov/citingmedicine

COURSE REFERENCES	Wager KA, Lee FW, Glaser JP. Health Care Information Systems: A Practical Approach for Health Care Management. San Francisco, California: Jossey-Bass 2009.

Shortliffe EH, Cimino JJ. Biomedical Informatics: Computer Applications in Health Care and Biomedicine, Fourth Edition. New York, New York: Springer Science +Business Media, LLC 2014. |

COURSE WEBSITE	This online course will be hosted on an internet site utilizing an open source Learning Management System (LMS) software application called Moodle. As part of your course registration, you will be given access to the website and the course materials. To log into the course website:

- Go to the website: https://vatraining.remote-learner.net/
- Enter in the username and password provided by HI Admin
- In the My Courses box on the page that opens, click the link for: VA Health Informatics Certificate Program (AMIA 10x10)

For more information on Moodle, go to http://moodle.org/about/

TECHNICAL SUPPORT

For technical issues such as problems with registration, access to course, or Moodle issues, please contact:

E-Mail: VHAhi2CertHelp@va.gov

Or Use the Technical Support Forum from within the course.

RECOMMENDED SOFTWARE, BROWSERS & PLUG-INS

Computer and Web Browser

To participate in this course, you will need access to either a government or personal computer.

The course is hosted on an internet site using a learning platform called Moodle. Moodle generally works well across a range of operating systems and browsers, including mobile devices. Regardless of which browser you use, it is recommended that you disable the pop-up blocker for this site.

Some resources in the course may require other software such as a PDF reader or Flash player.

These software programs are already installed on most computers. If they are not on your computer, you can download them here:

Download Adobe Reader: http://get.adobe.com/reader/

Download Adobe Flash Player: http://get.adobe.com/flashplayer/