

Request for Graduate Course Addition

1. Prepare one paper copy with all signatures and supporting material and forward to the Graduate Council Chair.
2. E-mail one identical PDF copy to the Graduate Council Chair. If attachments included, please merge into a single file.
3. **The Graduate Council cannot process this application until it has received both the PDF copy and the signed hard copy.**

College: Medicine Dept/Division: Department of Clinic Alpha Designator/Number: CTS 645 Graded CR/NC

Contact Person: DR. ALFRED CECCHETTI Phone: 304-691-1585

NEW COURSE DATA:

New Course Title: Navigating Health IT Systems for Quality Data

Alpha Designator/Number:

C	T	S		6	4	5			
---	---	---	--	---	---	---	--	--	--

Title Abbreviation:

N	a	v	i	g	a	t	i	n	g		H	e	a	l	t	h		I	T				
---	---	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	--	---	---	--	--	--	--

(Limit of 25 characters and spaces)

Course Catalog Description: Quality data, critical to clinical research/practice, necessitates an understanding of health information systems (HIS) and classification standards. This course overviews these HIS and standards enabling quality data.
(Limit of 30 words)

Co-requisite(s): None First Term to be Offered: Summer 2019

Prerequisite(s): None Credit Hours: 3

Course(s) being deleted in place of this addition (*must submit course deletion form*): None

Signatures: if disapproved at any level, do not sign. Return to previous signer with recommendation attached.

Dept. Chair/Division Head _____	Date _____
Registrar _____	Date _____
College Curriculum Chair _____	Date _____
Graduate Council Chair _____	Date _____

Request for Graduate Course Addition - Page 2

College: Medicine

Department/Division: Department of Clinical and T Alpha Designator/Number: CTS 645

Provide complete information regarding the new course addition for each topic listed below. Before routing this form, a complete syllabus also must be attached addressing the items listed on the first page of this form.

1. FACULTY: Identify by name the faculty in your department/division who may teach this course.

Niharika Bhardwaj, MBBS, MSHI

2. DUPLICATION: If a question of possible duplication occurs, attach a copy of the correspondence sent to the appropriate department(s) describing the proposal. Enter "**Not Applicable**" if not applicable.

This course provides practical skills that help the student extract quality data from complex health IT systems to answer research (clinical and translational) questions in an informed way through an in-depth understanding of the flow of the data and the different standards and classification systems used to store it into different Health IT systems from a clinical and billing perspective. Although courses exist that touch upon healthcare standards, classification systems, and structure/design of Health IT systems, none discuss healthcare data flow, standards and classification systems to extract quality data from a practical perspective via use case demonstrations.

3. REQUIRED COURSE: If this course will be required by another department(s), identify it/them by name. Enter "**Not Applicable**" if not applicable.

Not Applicable

4. AGREEMENTS: If there are any agreements required to provide clinical experiences, attach the details and the signed agreement. Enter "**Not Applicable**" if not applicable.

Not Applicable

5. ADDITIONAL RESOURCE REQUIREMENTS: If your department requires additional faculty, equipment, or specialized materials to teach this course, attach an estimate of the time and money required to secure these items. (Note: Approval of this form does not imply approval for additional resources.) Enter "**Not Applicable**" if not applicable.

Not Applicable

6. COURSE OBJECTIVES: (May be submitted as a separate document)

After completing this course, students should have a good understanding of the basics of Tableau. The student should be able to:

1. Demonstrate basic knowledge and understanding of Health IT systems and their role in the healthcare system.
2. Demonstrate knowledge of the different types of health information generated and their location.
3. Understand the importance of standards and data quality.
4. Apply knowledge of the Health information systems standards (such as ICD, CPT, etc.) to extract quality data for research/clinical purposes.
5. Improve their problem-solving and critical thinking skills through the use cases discussed in class.

7. COURSE OUTLINE (May be submitted as a separate document)

Module 1 - Introduction to Healthcare System
Module 2 - Introduction to Healthcare Information
Module 3 - Healthcare Data Quality
Assignment/Quiz 1
Module 4 - Why do we need Standards?
Module 5 – Types of Standards
Module 6 – Terminology Standards
Assignment/Quiz 2
Module 7 - Clinical Quality Measures
Module 8 – EHR's and billing system practical demonstration
Module 9 - Real-world Applications and Use cases
Final Project Presentations

8. SAMPLE TEXT(S) WITH AUTHOR(S) AND PUBLICATION DATES (May be submitted as a separate document)

No textbooks required

9. EXAMPLE OF INSTRUCTIONAL METHODS (Lecture, lab, internship)

Lecture

Request for Graduate Course Addition - Page 4

10. EXAMPLE EVALUATION METHODS (CHAPTER, MIDTERM, FINAL, PROJECTS, ETC.)

Assignments (150 Points), Quizzes (100 Points), Final Project(250 Points)

11. ADDITIONAL GRADUATE REQUIREMENTS IF LISTED AS AN UNDERGRADUATE/GRADUATE COURSE

None

12. PROVIDE COMPLETE BIBLIOGRAPHY (May be submitted as a separate document)

Trotter, F., & Uhlman, D. (2011). Hacking healthcare: A guide to standards, workflows, and meaningful use. " O'Reilly Media, Inc."

Benson, T., & Grieve, G. (2016). Principles of Health Interoperability. Springer.

Dixon, B. (Ed.). (2016). Health Information Exchange: Navigating and Managing a Network of Health Information Systems. Academic Press.

Request for Graduate Course Addition - Page 5

Please insert in the text box below your course summary information for the Graduate Council agenda. Please enter the information exactly in this way (including headings):

Department:

Course Number and Title:

Catalog Description:

Prerequisites:

First Term Offered:

Credit Hours:

Department: Department of Clinical and Translational Sciences (DCTS)

Course Number and Title: CTS 645 - Navigating Health IT Systems for Quality Data

Catalog Description: Quality data, critical to clinical research/practice, necessitates an understanding of health information systems (HIS) and classification standards. This course overviews these HIS and standards enabling quality data.

Prerequisites: None

First Term Offered: Summer 2019

Credit Hours: 3

**CTS 645 Navigating Health IT Systems for Quality Data Joan C.
Edwards Marshall University School of Medicine
Summer 2019**

General Information:

Professor: Niharika Bhardwaj
Phone: 304-691-5397
Email: bhardwaj1@marshall.edu
Office: 281 TGRI, ECCC 2nd Floor
Office Hours: No set office hours. Please contact faculty to arrange a time to meet.
Lecture: TBA

Course Description: The quality of healthcare data – i.e. accuracy, relevance to use case and completeness – is critical to clinical & translational research and medical practice. Pulling the right data is difficult, if not impossible, without a basic understanding of health information systems (HIS) and medical classification standards. This course provides an overview of these HIS and standards in the healthcare industry and enables gathering and use of HIS data effectively.

Pre-requisites: None

Credit Hours: 3

Text and Material: No textbooks required.

Course Objectives:

After completing this course, students should have a good understanding of the basics of Tableau. The student should be able to:

1. Demonstrate basic knowledge and understanding of Health IT systems and their role in the healthcare system.
2. Demonstrate knowledge of the different types of health information generated and their location.
3. Understand the importance of standards and data quality.
4. Apply knowledge of the Health information systems standards (such as ICD, CPT, etc.) to extract quality data for research/clinical purposes.
5. Improve their problem-solving and critical thinking skills through the use cases discussed in class.

Course Outcomes:

Student Learning Outcomes	How Outcome Will Be Practiced	How Outcome Will Be Assessed
Demonstrate basic knowledge and understanding of Health IT systems and their role in the healthcare system.	In-class discussion	Assignment/Quiz & Final Project
Demonstrate knowledge of the different types of health information generated and their location.	In-class discussion	Assignment/Quiz & Final Project
Understand the importance of standards and data quality	In-class discussion	Assignment/Quiz & Final Project
Apply knowledge of the Health information systems standards (such as ICD, CPT, etc.) to obtain relevant data for research/clinical	In-class discussion	Assignment/Quiz & Final Project
Hone their problem-solving and critical thinking skills through the case studies discussed in class	In-class discussion	Final Project

Course Syllabus:

Topic

Module 1 - Introduction to Healthcare System

Module 2 - Introduction to Healthcare Information

Module 3 - Healthcare Data Quality

Assignment/Quiz 1

Module 4 - Why do we need Standards?

Module 5 – Types of Standards

Module 6 – Terminology Standards

Assignment/Quiz 2

Module 7 - Clinical Quality Measures

Module 8 – EHR's and billing system practical demonstration

Module 9 - Real-world Applications and Use cases

Final Project Presentations

Grades:

Student performance is based on the scores achieved on assignments and the final project. The point totals for each assignment and final project are as follows:

Assignment/Quiz 1	150 points
Assignment/Quiz 2	100 points
Final Project	250 points

Final letter grades will be assigned as follows based upon the average percentage obtained on the assignments, quizzes and the final project. Grades will be posted on MU Online as soon as reasonably possible after each exam.

A	90-100%
B	80-89%
C	70-79%
D	60-69%
F	Below 60%

Class Policies:

By enrolling in this course, you agree to abide by the University policies listed below. Please read the full text of each policy by going to <http://www.marshall.edu/academic-affairs> and clicking on "Marshall University Policies".

Academic Dishonesty

Academic dishonesty will not be tolerated. Policy AA-12 defines academic dishonesty and describes the sanctions associated with it.

Inclement Weather

Policy GA-9 describes the policy on weather-related and/or emergency closings and delays. As this is an afternoon class, we will not be affected by delays. To find out if the University is closed, please call Audix at 696-6245.

Students with Disabilities Policy

Students with disabilities are required to prepare a notice either from the Help Center, Myers Hall, or Sandra Clements, PH 117, before a special accommodation can be honored. The link describing this policy is <http://www.marshall.edu/disabled>.

University Computing Services Acceptable Use Policy MUBOG Policy IT-1 explains this policy (<http://www.marshall.edu/president/board/policies.html>).

Cell Phone Use

Cell phone use, including texting, will not be tolerated in the class, unless authorized by the instructor. If special circumstances exist such that a student needs to be in communication with family members or friends during a class, please inform the instructor before the class begins.

Permission will be granted on a case-by-case basis and at the sole discretion of the instructor. If a student persists in using cell phones, including texting, after they have been asked to stop, the student will be removed from the class.