Request for Graduate Addition, Deletion, or Change of a Major or Degree

NOTE: Before you submit a request for a new Major or Degree, you must submit an INTENT TO PLAN form. Only after the INTENT TO PLAN goes through the approval process are you ready to submit this request for a new Major or Degree. For detailed information on new programs please see: http://wvhepcdoc.wvnet.edu/resources/133-11.pdf.

1. Prepare one paper copy with all signatures and supporting material and forward to the Graduate Council Chair.
2. E-mail one PDF copy without signatures to the Graduate Council Chair.
3. ***The Graduate Council cannot process this application until it has received both the PDF copy and the signed hard copy.***

College: CITE

Dept/Division: WDoE ENGINEERING

Contact Person: Dr. Asad Salem

Phone: x-63207

Degree Program: Master of Science in Mechanical Engineering

Check action requested: ☐ Addition ☐ Deletion ☒ Change

Effective Term/Year: Fall 20 18 Spring 20 ~~19~~ Summer 20

Information on the following pages must be completed before signatures are obtained.

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

Dept. Chair/Division Head	Date 9-22-17
College Curriculum Chair	Date 10/3/17
College Dean	Date 11/13/2017
Graduate Council Chair	Date 2-22-18
Provost/VP Academic Affairs	Date
Presidential Approval	Date
Board of Governors Approval	Date

Request for Graduate Addition, Deletion, or Change of a Major or Degree-Page 2

Please provide a rationale for addition, deletion, change: (May attach separate page if needed)

This is to eliminate the Project option from degree completion requirements. The project option is not a research based option. This proposed change limits degree seeking students to two options: Thesis option or Coursework option. Eliminating "project option" will encourage students to choose the Thesis option" and prompt research. It will strengthen the Thesis option by increasing the faculty participation in student advising and research. Stronger thesis options and increasing graduate students precipitation in research may enhance faculty and graduate students recruitment and retention. The Thesis option will, also, encourage students to get involved in scholarly activities which will enhance more publications in good peer reviewed journals and proceedings. It will, also, enhance their chances in attracting research grants from external sources.

Please describe any changes in curriculum:
List course number, title, credit hours. Note whether each course is required or optional. Enter NONE if no change. (May attach separate page if needed)

Eliminate Project option from degree requirement. Students may choose to complete either the "thesis option," or the "coursework only option" after consultation with their academic advisor.

1. ADDITIONAL RESOURCE REQUIREMENTS: If your program requires additional faculty, equipment or specialized materials to ADD or CHANGE this major or degree, 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 NONE if not applicable.

None

2. NON-DUPLICATION: If a question of possible duplication occurs, attach a copy of the correspondence sent to the appropriate department(s) describing the request and any response received from them. Enter NONE if not applicable.

None

For catalog changes as a result of the above actions, please fill in the following pages.

Request for Graduate Addition, Deletion, or Change of a Major or Degree-Page 3

3. *Current* Catalog Description

Insert the *Current* Catalog Description and page number from the latest catalog for entries you would like to change. (May attach separate page if needed)

See the attached.

4. *Edits* to the Current Description

Attach a PDF copy of the current catalog description prepared in MS WORD with strikethroughs to mark proposed deletions and use the highlight function to indicate proposed new text.

Request for Graduate Addition, Deletion, or Change of a Major or Degree-Page 4

5. *New* Catalog Description

Insert a 'clean' copy of your proposed description, i.e., no strikethroughs or highlighting included. This should be what you are proposing for the new description. (May attach separate page if needed)

See the attached

Request for Graduate Addition, Deletion, or Change of a Major or Degree-Page 5

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

Department:
Major or Degree:
Type of Change: *(addition, deletion, change)*
Rationale:

Department: The Weisberg Division of Engineering
Major or Degree: Ms. ME
Type of Change: Change
Rationale: This is to eliminate the Project option from degree completion requirements. The project option is not a research based option. This proposed change limits degree seeking students to two options: Thesis option or Coursework option. Eliminating "project option" will encourage students to choose the Thesis option" and prompt research. It will strengthen the Thesis option by increasing the faculty participation in student advising and research. Stronger thesis options and increasing graduate students precipitation in research may enhance faculty and graduate students recruitment and retention. The Thesis option will, also, encourage students to get involved in scholarly activities which will enhance more publications in good peer reviewed journals and proceedings. It will, also, enhance their chances in attracting research grants from external sources.

3. Current Catalog Description

Degree Requirements

Each degree candidate is required to complete at least **30-33** graduate credit hours, depending on the "option" chosen below (project, thesis, or coursework only), with a cumulative Grade Point Average of

3.0 for the courses included in the student's Plan of Study. At least one-half of the minimum required hours for the degree must be earned in classes numbered 600 or above.

Each degree-seeking student must file an approved "Plan of Study," developed with a faculty advisor, before the student registers for the 12th credit hour. The M.S. degree in Mechanical Engineering requires a student to take a sequence of courses that shows a "clearly discernible specialty or concentration." In consultation with his/her advisor, an M.S. student can develop a concentration specifically tailored to his/her interests and objectives, Focus areas include sustainability, materials and manufacturing, bio-mechanical engineering, thermal science, mechanics, design, robotics, and vibrations, controls, and power generation/energy systems. At least three of the Elective Courses (9 CR) must be within the student's Focus Area at the 600-level.

Students may choose to complete either the "project option," the "thesis option," or the "coursework only option" after consultation with their academic advisor.

Project Option (30 hours). The comprehensive project involves the application of coursework completed as part of the degree to a practical problem. Students will work with their advisor to identify an appropriate project and scope. Students must prepare a formal written report and deliver an oral presentation to a committee. Students register for ENGR 699 Comprehensive Project (3 HR) during the semester in which their project will be completed and presented, but preliminary work on the project may commence before that semester.

ENGR 570 Finite Element Analysis 3 hrs

ME 601 Advanced Engineering Analysis I 3 hrs

ME 602 Advanced Engineering Analysis II (or ENGR 610 with advisor approval) 3 hrs

ME 604 Research Methods 3 hrs

Five (5) Elective Courses 15 hrs

ENGR 699 Comprehensive Project 3 hrs

Thesis Option (30 hours). The thesis option involves the completion of 6 HR of research (ENGR 681) under the direction of an advisor on an approved project. The student must prepare a formal thesis proposal (including a statement of work, extensive literature search, and proposed timeline) in consultation with their advisor and present the proposal to their graduate thesis committee, which is formed in consultation with their advisor. The thesis proposal must be defended and approved by the thesis committee prior to the final semester of study (typically completed during first semester of ENGR

682). Students must then summarize their research work in the form of a formal, written thesis and successfully defend it before their thesis committee in order to fulfill the requirements for the degree (typically completed during second semester of ENGR 682). Thesis work is typically conducted over two semesters.

ENGR 570 Finite Element Analysis 3 hrs

ME 601 Advanced Engineering Analysis I 3 hrs

ME 602 Advanced Engineering Analysis II (or ENGR 610 with advisor approval) 3 hrs

ME 604 Research Methods 3 hrs

Four (4) Elective Course 12 hrs

ENGR 682 Research 6 hrs

Coursework Only Option (**33** hours). Students can complete **33** hours of coursework and then complete a comprehensive examination within the last two semesters of graduation to fulfill the requirements of their degree. Examinations will be administered once per semester for all students.

ENGR 570 Finite Element Analysis 3 hrs

ME 601 Advanced Engineering Analysis I 3 hrs

ME 602 Advanced Engineering Analysis II (or ENGR 610 with advisor approval) 3 hrs

Eight (8) Elective Courses 24 hrs

4. Edits of the Current Description

Degree Requirements

Each degree candidate is required to complete at least **30** ~~**33**~~ graduate credit hours, ~~depending on the "option" chosen below (project, thesis, or coursework only)~~, with a cumulative Grade Point Average of 3.0 for the courses included in the student's Plan of Study. At least one-half of the minimum required hours for the degree must be earned in classes numbered 600 or above.

Each degree-seeking student must file an approved "Plan of Study," developed with a faculty advisor, before the student registers for the 12th credit hour. The M.S. degree in Mechanical Engineering requires a student to take a sequence of courses that shows a "clearly discernible specialty or concentration." In consultation with his/her advisor, an M.S. student can develop a concentration specifically tailored to his/her interests and objectives, Focus areas include sustainability, materials and manufacturing, bio-mechanical engineering, thermal science, mechanics, design, robotics, and vibrations, controls, and power generation/energy systems. At least three of the Elective Courses (9 CR) must be within the student's Focus Area at the 600-level.

Students may choose to complete either ~~the "project option,"~~ the "thesis option," or the "coursework only option" after consultation with their academic advisor.

~~Project Option (30 hours). The comprehensive project involves the application of coursework completed as part of the degree to a practical problem. Students will work with their advisor to identify an appropriate project and scope. Students must prepare a formal written report and deliver an oral presentation to a committee. Students register for ENGR 699 Comprehensive Project (3 HR) during the semester in which their project will be completed and presented, but preliminary work on the project may commence before that semester.~~

~~ENGR 570 Finite Element Analysis 3 hrs~~

~~ME 601 Advanced Engineering Analysis I 3 hrs~~

~~ME 602 Advanced Engineering Analysis II (or ENGR 610 with advisor approval) 3 hrs~~

~~ME 604 Research Methods 3 hrs~~

~~Five (5) Elective Courses 15 hrs~~

~~ENGR 699 Comprehensive Project 3 hrs~~

Thesis Option (30 hours). The thesis option involves the completion of 6 HR of research (ENGR 681) under the direction of an advisor on an approved project. The student must prepare a formal thesis proposal (including a statement of work, extensive literature search, and proposed timeline) in consultation with their advisor and present the proposal to their graduate thesis committee, which is formed in consultation with their advisor. The thesis proposal must be defended and approved by the thesis committee prior to the final semester of study (typically completed during first semester of ENGR 682). Students must then summarize their research work in the form of a formal, written thesis and successfully defend it before their thesis committee in order to fulfill the requirements for the degree (typically completed during second semester of ENGR 682). Thesis work is typically conducted over two semesters.

ENGR 570 Finite Element Analysis 3 hrs

ME 601 Advanced Engineering Analysis I 3 hrs

ME 602 Advanced Engineering Analysis II (or ENGR 610 with advisor approval) 3 hrs

ME 604 Research Methods 3 hrs

Four (4) Elective Course 12 hrs

ENGR 682 Research 6 hrs

Coursework Only Option (~~33~~ 30 hours). Students can complete ~~33~~ 30hours of coursework and then complete a comprehensive examination within the last two semesters of graduation to fulfill the requirements of their degree. Examinations will be administered once per semester for all students.

ENGR 570 Finite Element Analysis 3 hrs

ME 601 Advanced Engineering Analysis I 3 hrs

ME 602 Advanced Engineering Analysis II (or ENGR 610 with advisor approval) 3 hrs

~~Eight (8)~~ Seven (7) Elective Courses ~~24~~ 21 hrs

5. New catalog Description

Degree Requirements

Each degree candidate is required to complete at least **30** graduate credit hours, with a cumulative Grade Point Average of 3.0 for the courses included in the student's Plan of Study. At least one-half of the minimum required hours for the degree must be earned in classes numbered 600 or above.

Each degree-seeking student must file an approved "Plan of Study," developed with a faculty advisor, before the student registers for the 12th credit hour. The M.S. degree in Mechanical Engineering requires a student to take a sequence of courses that shows a "clearly discernible specialty or concentration." In consultation with his/her advisor, an M.S. student can develop a concentration specifically tailored to his/her interests and objectives, Focus areas include sustainability, materials and manufacturing, bio-mechanical engineering, thermal science, mechanics, design, robotics, and vibrations, controls, and power generation/energy systems. At least three of the Elective Courses (9 CR) must be within the student's Focus Area at the 600-level.

Students may choose to complete either the "thesis option," or the "coursework only option" after consultation with their academic advisor.

Thesis Option (30 hours). The thesis option involves the completion of 6 HR of research (ENGR 681) under the direction of an advisor on an approved project. The student must prepare a formal thesis proposal (including a statement of work, extensive literature search, and proposed timeline) in consultation with their advisor and present the proposal to their graduate thesis committee, which is formed in consultation with their advisor. The thesis proposal must be defended and approved by the thesis committee prior to the final semester of study (typically completed during first semester of ENGR 682). Students must then summarize their research work in the form of a formal, written thesis and successfully defend it before their thesis committee in order to fulfill the requirements for the degree (typically completed during second semester of ENGR 682). Thesis work is typically conducted over two semesters.

ENGR 570 Finite Element Analysis 3 hrs

ME 601 Advanced Engineering Analysis I 3 hrs

ME 602 Advanced Engineering Analysis II (or ENGR 610 with advisor approval) 3 hrs

ME 604 Research Methods 3 hrs

Four (4) Elective Course 12 hrs

ENGR 682 Research 6 hrs

Coursework Only Option (30 hours). Students can complete 30 hours of coursework and then complete a comprehensive examination within the last two semesters of graduation to fulfill the requirements of their degree. Examinations will be administered once per semester for all students.

ENGR 570 Finite Element Analysis 3 hrs

ME 601 Advanced Engineering Analysis I 3 hrs

ME 602 Advanced Engineering Analysis II (or ENGR 610 with advisor approval) 3 hrs

Seven (7) Elective Courses 21 hrs

Chair: Tracy Christofero | **GC#2: Certificate**

Request for Graduate Addition, Deletion, or Change of a Certificate

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.
NOTE: *If proposing a new certificate, please read this first:* www.marshall.edu/graduate/graduatecouncil/certificatespolicy/certificatepolicy.pdf

College: Health Professions

Dept/Division: Health Informatics

Contact Person: Girmay Berhie

Phone: 304 696 2718

Name of Certificate: Data Analytics for Healthcare

Check action requested: ☒ Addition ☐ Deletion ☐ Change

Effective Term/Year: Fall 20 18 ☐ Spring 20 ☐ Summer 20 ☐

Information on the following pages must be completed before signatures are obtained.

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

Dept. Chair/Division Head Girmay Berhie	Date 10/30/2017
College Curriculum Chair	Date 10/31/17
College Dean	Date 10/31/17
Graduate Council Chair Christofero	Date 2-22-18
Provost/VP Academic Affairs	Date
Presidential Approval	Date

Request for Graduate Addition, Deletion, or Change of a Certificate-Page 2

Please provide a rationale for addition, deletion, change:

Data Analytics in Healthcare is a highly important field assisting in the systematic use of data to drive fact-based decision making to assist in healthcare planning, management and measurement. According to a survey published by Journal of AHIMA (2015), Healthcare big data analytics and informatics skills will be among the most sought-after competencies for health information management (HIM) professionals in the next few years. Marshall will be able to provide continuing education for all healthcare staff, enabling them to have a comprehensive knowledge of applied data analytics within the healthcare arena.

Please describe any changes in curriculum:
List course number, title, credit hours. Note whether each course is required or optional. Enter NONE if no change.

HP 605- EHR & PHR (3 Credit Hours)
HP 610 - Healthcare Statistics (3 Credit Hours)
HP 630 - Research Methods and Data Analytics for Health Informatics (3 Credit Hours)
IS 535 - Applied Healthcare Databases/Tools (3 Credit Hours)
IS 545 - Healthcare Data Analytics and Visualization (3 Credit Hours)

1. ADDITIONAL RESOURCE REQUIREMENTS: If your program requires additional faculty, equipment or specialized materials to ADD or CHANGE this certificate, 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 NONE if not applicable.

In order to teach the new courses, the Health Informatics department needs to acquire one faculty member with a 9-month salary in the range of 65,000 to 70,000. This position will also be requested for other Health Informatics department responsibilities aside from this certificate. The responsibilities will include being a Health Informatics Practicum Coordinator, Health Informatics program promotion, student advising and recruitment, and other administrative responsibilities. As such, this position will need to be filled by June 30th, 2017

2. NON-DUPLICATION: If a question of possible duplication occurs, attach a copy of the correspondence sent to the appropriate department(s) describing the request and any response received from them. Enter NONE if not applicable.

None

For catalog changes as a result of the above actions, please fill in the following pages.

Request for Graduate Addition, Deletion, or Change of a Certificate-Page 3

3. *Current* Catalog Description

Insert the *Current* Catalog Description and page number from the latest catalog for entries you would like to change. May attach separate page if needed)

4. *Edits* to the Current Description

Attach a PDF copy of the current catalog description prepared in MS WORD with strikethroughs to mark proposed deletions and use the highlight function to indicate proposed new text.

5. *New* Catalog Description

Insert a 'clean' copy of your proposed description, i.e., no strikethroughs or highlighting included. This should be what you are proposing for the new description. (May attach separate page if needed).

Attached

Request for Graduate Addition, Deletion, or Change of a Certificate-Page 4

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

Department:
Name of Certificate:
Credit Hours:
Type of Change: *(addition, deletion, change)*
Rationale:

Department: Health Informatics
Name of Certificate: Data Analytics in Healthcare
Credit Hours: 15 Credit Hours
Type of Change: Addition
Rationale: Data Analytics in Healthcare is a highly important field assisting in the systematic use of data to drive fact-based decision making to assist in healthcare planning, management and measurement. According to a survey published by Journal of AHIMA (2015), Healthcare big data analytics and informatics skills will be among the most sought-after competencies for health information management (HIM) professionals in the next few years. Marshall will be able to provide continuing education for all healthcare staff, enabling them to have a comprehensive knowledge of applied data analytics within the healthcare arena.

Online Data Analytics in Healthcare Graduate Certificate

Data Analytics is the process of acquiring, extracting, integrating, transforming, and modeling data with the goal of deriving useful information. Its application is growing rapidly in health care organizations across the globe. Data Analytics in Healthcare enables the systematic use of data to drive fact-based decision-making to assist in healthcare planning, management and measurement. However, many organizations lack the knowledge to effectively utilize data analytics. As a result, according to a survey published by Journal of AHIMA (2015), healthcare big data analytics and informatics skills will be among the most sought-after competencies for health information management (HIM) professionals in the next few years.

The Marshall University Online Data Analytics in Healthcare certificate is designed to provide healthcare professionals with the skills required to compete for data analysis jobs amid rising demand in the healthcare industry. The certificate program will explore the intricacies of data analytics and expose students to various topics related to data processing, integration, analysis, and visualization. Individuals who complete this program will have a solid framework of data analytics methodologies accompanied by exposure to the tools used for knowledge discovery pertinent to health care.

The certificate is intended for students who are interested in transforming the massive data being produced in the health care industry into meaningful information. They are the individuals who want to determine what decisions or actions should be taken to generate value from the healthcare data produced every day.

Admission Requirements

Applicants should follow the admissions process described in the Graduate Catalog, or at the Graduate Admissions website at www.marshall.edu/graduate/admissions/how-to-apply-for-admission. (Submit all materials to the Graduate Admissions Office.) Students must have an undergraduate Grade Point Average (GPA) of 3.0 or higher on a 4.0 scale for all previously completed undergraduate university work, and GRE scores from GRE test taken within the past five years.

Program Requirements: ..... 15 Credit Hours

Students must take the following courses:

HP 605 -EHR & PHR ..... 3 Credit Hours

HP 610 - Healthcare Statistics .....3 Credit Hours

HP 630- Research Methods and Data Analytics for Health Informatics ..... 3 Credit Hours

IS 535 - Applied Healthcare Databases/Tools .....3 Credit Hours

IS 545 -Healthcare Data Analysis and Visualization .....3 Credit Hours

Courses in this certificate can also be applied to a Masters in Health Informatics.

Data Analytics in Healthcare

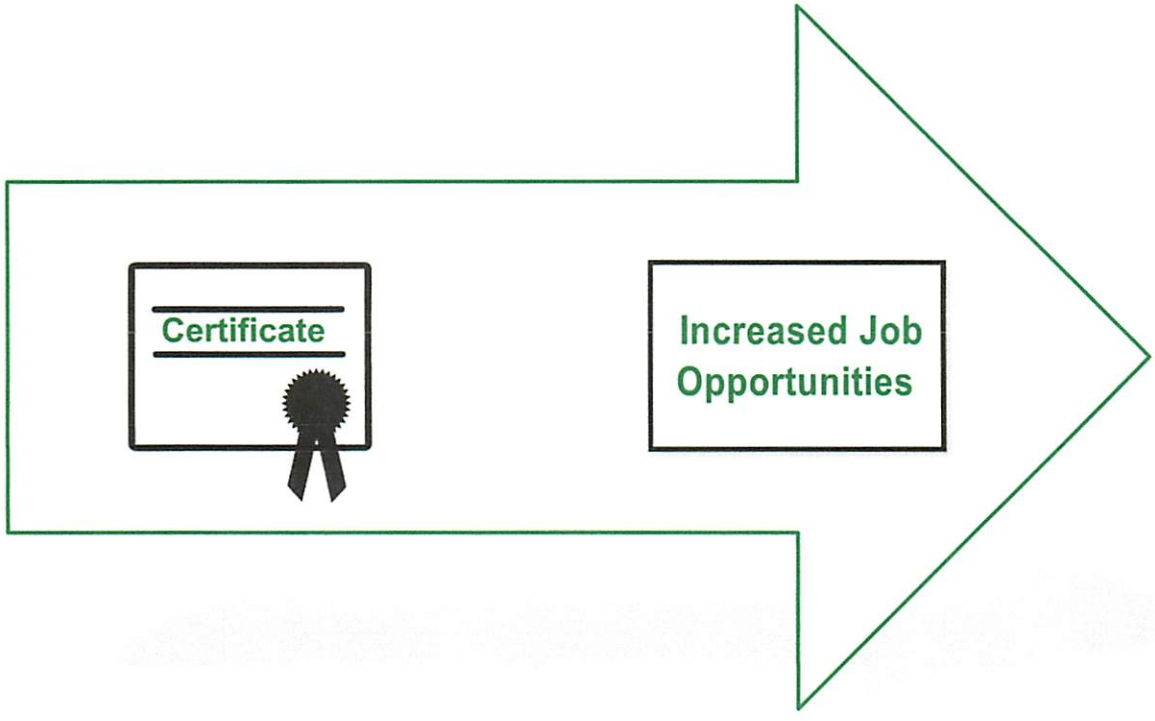
Online Graduate Certificate

Department of Health Informatics

College of Health Professions

Marshall University

September 26, 2017,



Girmay Berhie, Ph.D.
Professor/Director
Department of Health Informatics

Online Data Analytics in Healthcare Graduate Certificate

Data Analytics is the process of acquiring, extracting, integrating, transforming, and modeling data with the goal of deriving useful information. Its application is growing rapidly in health care organizations across the globe. Data Analytics in Healthcare enables the systematic use of data to drive fact-based decision-making to assist in healthcare planning, management and measurement. However, many organizations lack the knowledge to effectively utilize data analytics. As a result, according to a survey published by Journal of AHIMA (2015), healthcare big data analytics and informatics skills will be among the most sought-after competencies for health information management (HIM) professionals in the next few years.

The Marshall University Online Data Analytics in Healthcare certificate is designed to provide ***healthcare professionals*** with the skills required to compete for data analysis jobs amid rising demand in the healthcare industry. The certificate program will explore the intricacies of data analytics and expose students to various topics related to data processing, integration, analysis, and visualization. Individuals who complete this program will have a solid framework of data analytics methodologies accompanied by exposure to the tools used for knowledge discovery pertinent to health care.

The certificate is intended for students who are interested in transforming the massive data being produced in the health care industry into meaningful information. They are the individuals who want to determine what decisions or actions should be taken to generate value from the healthcare data produced every day.

Data Analytics in Healthcare Certificate Curriculum

Courses	Credits
HP 605 – EHR & PHR and Cerner Simulation Lab	3
HP 610 – Healthcare Statistics or elective	3
HP 630 – Research Methods and Data Analytics for Health Informatics	3
IS 535/or 623 – Applied Healthcare Databases/Tools or Data base Systems	3
IS 545 or 624 – Healthcare Data Analysis & Visualization or Data mining	3
Total	**15**

Additional Curriculum Rationale

In order to provide this certificate, five courses are being developed. The following section is to outline the rationale for course addition and the differences of these courses as opposed to already offered courses at Marshall University. First, all of these courses will be offered online as opposed to the existing courses that are currently offered on-campus. Secondly, the major unique factor in all of these courses are the alignment to the CAHIIM competencies for Health Informatics – that is around the outcomes of implementing Electronic Health Records, Personal Health Records, Health Information Networks, Healthcare Data, etc. Due to appreciated feedback

concerning lack of uniqueness from existing courses, we have the updated the curriculum to provide a more focused experience in Data Analytics applied to healthcare.

HP 610 – Healthcare Statistics

Catalog Description: Statistical techniques useful in healthcare research and healthcare administrative decision-making including frequency distributions, statistical inference, and application of chi squared, ANOVA, and regression.
Text: Calculating and Reporting Healthcare Statistics, Fourth Edition. By Loretta Horton, Med, RHIA, FAHIMA. (AHIMA) SAS, SPSS, JMP
Rationale: Though this may be perceived as a similar course to biostatistics, this course will introduce examples and applications unique to Health Information Management professionals such as compiling inpatient service days, length of stay and occupancy, and mortality rates. It will be covering the AHIMA statistics domains for Health Information Management professionals.

IS 545 – Healthcare Data Analytics and Visualization

Catalog Description:

The course focuses on the systems, techniques, strategies and methods of big data analysis, data mining and machine learning algorithms and data visualization techniques in healthcare settings.

Book:

Data Analytics in Healthcare Research: Tools and Strategies. David Marc, MBS, CHDA, and Ryan Sandefer, MA, CPHIT. 978-1584264439. AHIMA Press (2016).

Rationale:

The course focuses on the systems, techniques, strategies and methods of big data analysis, data mining and machine learning algorithms and data visualization techniques in healthcare settings.

I'd rather attempt to do something great and fail than to attempt to do nothing and succeed.

~Robert H. Schuller

Course Title/Number	**IS 535 – Applied Healthcare Databases/Tools**
Semester/Year	Spring 2018
Days/Time	Online Course – No Meeting times or dates
Location	Online
Instructor	TBA
Office	TBA
Phone	
Email	
Office/Hours	By Appointment; Open communication via email at any time
University Policies	By enrolling in this course, you agree to the University Policies listed below. Please read the full text of each policy by going to http://www.marshall.edu/academic-affairs/policies/. Academic Dishonesty/ Excused Absence Policy for Undergraduates/ Computing Services Acceptable Use/ Inclement Weather/ Dead Week/ Students with Disabilities/ Academic Forgiveness/ Academic Probation and Suspension/ Academic Rights and Responsibilities of Students/ Affirmative Action/ Sexual Harassment

Course Description from Catalog
To understand the logical and physical design of data stored and retrieved from relational databases, how it applies to healthcare, and how HIM professionals can effectively communicate business requirements.

Student Learning Outcome (Students will...)	Practiced by:	Assessed by:
Be able to identify and define data elements and construct a data dictionary for a Health care application.	Reading assignments, Homework	Homework, Projects, Midterm
Be able to normalize data from a healthcare data set/setting environment.		
Be able to develop and entity relationship diagram (ERD) based on healthcare business requirements/end user needs..		
Be able construct Structured Query Language (SQL) statements for healthcare database definitions, manipulation, and data retrieval.		
Be able to apply the principles of information integrity, security, and confidentiality to a healthcare database. Additional, emphasis on confidentiality due to HIPPA requirements.		
Be able to identify issues with database systems that are unique to the healthcare environment.		

Attendance Policy
Online class: Not applicable.

Required Texts, Additional Reading, and Other Materials	
	Healthcare Databases: A Simple Guide to Building and Using Them
Author	Alan Giles
ISBN	978-1857759723
Publisher	CRC Press
	Database Systems: Design, Implementation, & Management
Author	Carlos Coronel & Steven Morris
ISBN	9781285196145
Publisher	CRC Press
Pub. Date	2015

Other Materials

1. Campbell, Robert J. "*Database design: what HIM professionals need to know*." Perspectives in health information management/AHIMA, American Health Information Management Association 1 (2004).
2. AHIMA. "*Managing Copy Functionality and Information Integrity in the EHR*." Journal of AHIMA 83, no.3 (March 2012): 47-49.
    a. http://library.ahima.org/xpedio/groups/public/documents/ahima/bok1_049377.hcsp?dDocName=bok1_049377
    b. http://csrc.nist.gov/news_events/hiipaa_june2012/day1/day1-b2_drode_integrity-protections.pdf
3. Eliason, B., Burke, J., & Hess, P. *"Master Data Management in Healthcare: 3 Approaches"* Health Catalyst
    a. https://www.healthcatalyst.com/master-data-management-in-healthcare-3-approaches
4. LeSuer, D. *"5 Reasons Healthcare Data Is Unique and Difficult to Measure"* Health Catalyst
    a. https://www.healthcatalyst.com/5-reasons-healthcare-data-is-difficult-to-measure
5. Dolins, S., Kero, R. *"Data Managmenet Challenges for U.S. Healthcare Providers"*
    a. http://www.irma-international.org/viewtitle/32893/
6. MITRE. (2015) *"Eliciting, Collecting, and Developing Requirements"* MITRE- Systems Engineering Guide
    a. http://www.mitre.org/publications/systems-engineering-guide/se-lifecycle-building-blocks/requirements-engineering/eliciting-collecting-and-developing-requirements

Course Requirements/Due Dates

Discussion Board Posts

Most weeks, there will be a discussion board post due. It will be based on the Healthcare Database: A Simple Guide to Building and Using Them, articles in relation to effective communication of business requirements/needs, and challenges of database management in healthcare.

Homework: The homework assignments will utilize health care data sets.

#	Description	Due beginning of:
1	Identification of Data Elements/Terminology	3rd Week
2	Data Normalization	5th Week
3	Data Dictionary	7th Week
4	Database Modeling and Design	10th Week
5	Data Definition Language SQL	11th Week
6	Data Manipulation Language SQL	13th Week
7	Data Query Language SQL	15th Week

Mid-Term: Due by Midnight Monday of the 9th week of class.

There will be a take home exam that will include multiple choice, t/f, and problem solving questions.

Project Proposal (Due Monday Midnight 7th Week): Project Description, and proposed reports ideas.

Project Rough-Draft (Due Monday Midnight 12th Week): Requires Project Description, Business Requirements, Data Dictionary, ERD Diagram, Two Sample Reports Descriptions/Outlines

Final Project: Due by Midnight the last day of class.

There will be a final project in where the student will elect a project or be given a project that utilizes a healthcare data setting. The project submission will include:

- *Project Description*
- *Business Requirements/End Use Requirements: KEY ELEMENT*
- *Data Dictionary*
- *ERD Diagram*
- *Data Definition Queries*
- *Two Sample Reports Needed and Accompanying Queries*

Grading Policy	
A	90-100%
B	80-89%
C	70-79%
F	Below 70%
Activities & Points	
15%	Discussion Board Posts
30%	Homework Assignments
10%	Mid-Term
10%	Project Proposal
10%	Project Rough Draft
20%	Final Project

Late Assignments will be deducted 10% for each day they are turned in late.

100% credit will be given for completing all aspects of the assignment correctly. Any points deducted will have an accompanying explanation.

10% extra credit can be earned on any assignment in which a student goes above and beyond the requirements or produces otherwise exceptional work.

Note: The professor reserves to the right to make changes to this syllabus.

Course Schedule			
Week	**Text Book***	**Topic**	**Assignments (Monday at Midnight)**
1	Chapter 1 & 2	Introduction; General Terminology, Systems, Models, Importance in Healthcare	2nd week: Discussion Board Post
2	Chapter 3 & 6	Relational Model & Normalization	3rd Week Discussion Board Post: HW #1
3	Chapter 4, 5, 6	Data Elements, Data Types	4th Week: Discussion Board Post
4	Chapter 4	Business Requirements, Data Dictionary	5th Week: Discussion Board Post 5th Week: HW #2
5	Chapter 4	Database Modeling	6th Week: Discussion Board Post
6	Chapter 4	Database Modeling (Give out Midterm)	7th Week: HW #3 7th Week: Project Proposal
7	Chapter 7, 9	Data Definition Language SQL	8th Week: Discussion Board Post
8	Chapter 7, 9	Data Definition Language SQL	9th Week: Midterm Due
9	Chapter 7	Data Manipulation Language SQL	10th Week: HW #4 10th Week: Discussion Board Post
10	Chapter 7	Data Manipulation Language SQL	11th Week: Discussion Board Post 11th Week: HW #5
11	Chapter 7, 8	Data Query Language SQL	12th Week: Project Rough Draft
12	Chapter 7, 8	Data Query Language SQL	13th Week: Discussion Board Post 13th Week: HW #6
13	Article 2 of other Resources	Principles of Information Integrity, security, and confidentiality to a database (HIPPA, EHRS, HIEs)	14th Week: Discussion Board Post
14	Thanksgiving Break!	Thanksgiving Break! No Reading Assigned	15th Week: Discussion Board Post 15th Week: HW #7
15	Articles 3	Issues with Database Management in Healthcare	16th Week: Discussion Board Post
16	Finals Week		Exam Day: Final Project Due (1 point extra credit for each day a complete project is turned in early)
* TextBook for listed Chapters: *Database Systems: Design, Implementation, & Management*			

Marshall University
Syllabus Template

Course Title/Number	**HP 605 – The role of EHR and PHR** (3 hours credit) **Simulation Lab: Cerner**
Semester/Year	Fall 2017
Days/Time	Monday-4:00 pm to 6:20 pm
Location	GH 123
Instructor	**Girmay Berhie, PhD, MSW, MS-IS**
Office	GH 107
Phone	304-696-2718
E-Mail	berhie@marshall.edu
Web-page	webpages.marshall.edu/~berhie
Office/Hours	By appointment only on day of the class
University Policies	By enrolling in this course, you agree to the University Policies listed below. Please read the full text of each policy be going to www.marshall.edu/academic-affairs and clicking on "Marshall University Policies." Or, you can access the policies directly by going to http://www.marshall.edu/academic-affairs/?page_id=802 Academic Dishonesty/ Excused Absence Policy for Undergraduates/ Computing Services Acceptable Use/ Inclement Weather/ Dead Week/ Students with Disabilities/ Academic Forgiveness/ Academic Probation and Suspension/ Academic Rights and Responsibilities of Students/ Affirmative Action/ Sexual Harassment

Course Description: From Catalog

The course will introduce students to the main concepts of Electronic Health Records and the current EHR systems being used at major health care providers in the US.

	Course Student Learning Outcomes	How Practiced in this Course	How Assessed in this Course
EHR	Describe the factors that led to the emergence of electronic health records.	Video – Conference Case- studies Power point presentation Lecture Guest speaker Demonstration of software Benchmarking	Exam Research project Papers Power point presentation Article critique
	Discuss the concept and evolution of the electronic health record (EHR).		
	Discuss EHR challenges and the supporting roles of health information management professionals in addressing them, especially with respect to privacy, security and legal aspects.		
	Describe the planning and implementation aspects of EHRs.		
	State examples of EHR systems as they may be implemented in various types of care setting.		
	Identify and define terms associated with EHRs.		
	Relate the various initiatives local, regional, and national adoption of EHR and health information technology (HIT).		
	Describe the current state of EHR adoption and the technologies that help transition to the EHR.		
	Explain how paper records are converted to an EHR system.		
	Demonstrate an understanding of how EHR's are used in physician practices.		

EHR & PHR	Demonstrate an understanding of how electronic health records are used in hospitals.	Video – Conference Case- studies Power point presentation Lecture Guest speaker Demonstration of software Benchmarking	Exam Research project Papers Power point presentation Article critique
	Describe the different types of Personal Health Records and explain how PHR's differ from EHR's.		
	Demonstrate an understanding of the challenges to maintain information privacy and security.		
	Compare various types of EMR/EHR systems		
	Based on hands-on experience, describe the benefits of using an electronic health record.		
	Effectively utilize information technology and medical terms as they apply to EHR/EMR.		
	Discuss the concept and evolution of the electronic health record (EHR) and evaluate and defend the current state of the EHR and technologies.		
	Differentiate between heath information type, content, and forms of media.		
	Differentiate between health record data definitions, vocabularies, terminologies and dictionaries.		

HIPPA	Understand the process and key features of HIPAA regulation and its impact on the healthcare professional.	Video – Conference Case- studies Power point presentation Lecture Guest speaker Demonstration of software Benchmarking	Exam Research project Papers Power point presentation Article critique
	Define HIPAA and explain what information must be protected under the privacy laws.		
	Explain HIPAA patient rights		
	Identify consequences for non-compliance with HIPAA Regulations.		
	Define security standards regarding passwords and email.		
	Define security policies regarding network security, including definitions of authentication, VPN, Intrusion detection, Virus Software, and Firewalls.		
	Explain disaster recovery and how to handle paper record disposal.		
	Define Medical Informatics and give an overview of different Healthcare Software Applications.		
	Identify various job roles and job duties that are part of Health Informatics.		
	List Professional Organizations that support Health Informatics		

Required Texts, Additional Reading, and Other Materials

Required:

Health IT and EHRs: Principles and Practice: sixth Edition Margret K. Amatayakul MBA, RHIA, CHPS, CPHIT, CPEHR, FHIMSS **(Requred)**

Electronic Health Records: A Practical Guide for Professionals and Organizations, Fifth Edition, AHIMA Margret K. Amatayakul **(Recommended)**
ISBN 978-1-5842-6291-6

Required Journal Articles for Session 1.

⇒ Health Information Technology for economic and Clinical Health (HITECH) Act, Title XIII of Division A and Title IV of Division B of the American Recovery and Reinvestment Act of 2009 (ARRA), Pub. L. N0'111-5 (Feb 17,2009), codified at 42 U.S.C §§300jj et seq.; §§17901 et seq.

⇒ Kulikowski,C.,Shortliffe E.,L. Currie et al. "AMIA Board white paper: definition of biomedical informatics and specification of core competencies for graduate education in the discipline" Journal of the American Medical Informatics Association. http:/jamia.bmj.com/content/early/2012/06/20 amiajnl-2012-001053.full.

⇒ Jones,S.,Heaton,P.,Rudin,R.,E Schneider. "Unraveling the IT productivity Paradox – Lessons for Health Care" New England Journal of Medicine, 366:24;p.2243-2245.

Recommended:

Medicare Patients Aren't Getting Sicker or Older, But Doctors Are Charging More
MacNeil/Lehrer Productions | video | MLP-2012-09-17-1 | 0h 6m 30s

In 2012, the Center for Public Integrity investigated how Medicare billing changed over the past decade and found doctors were billing at much higher rates. Hari Sreenivasan talks to Center for Public Integrity's Fred Schulte to understand why doctors are 'upcoding' more and why electronic medical records could be driving higher prices. Air Date: 9/17/2012 © MacNeil/Lehrer Productions

Course Requirements / Due Dates

HCA 600- Health Care System in the United States (3hr)

Grading Policy

Graded (Required) Activities	Weight	Final Grade Policy	
Exam 1:	20%	A	90% - 100%
Exam 2:	20%	B	80% - 89%
Exam 3:	20%	C	70% - 79%
Term Paper	30%	F	< 69%
Attendance:	10%		
IRB: RCR Course*	5%		
Total	**105%**		

* Passing the Responsible Conduct of Research (RCR) course for Institutional Board of Research is requirement to pass this course. All researchers, staff and students of NSF sponsored grants are required to complete an educational course. The educational course utilized by Marshall University is the Collaborative Institutional Training Initiative (CITI). You will receive a certificate when you pass the course with an 80% or higher. Send the copy of the certificate to receive completion credit for the course.

Instructions for signing up and completing the RCR course can be found:
http://www.marshall.edu/ori/human-subject-research/education/
On this page, use the instructions link entitled for detailed instructions:
CITI Registration Instructions for Responsible Conduct of Research (RCR) Course

MAKE-UP TEST PROCEDURES

If it is necessary to be absent during an assigned test period, the student must make-up that examination within one week of the original test date (if the exam is given on Monday, it must be made up PRIOR to the next Monday). Failure to dos so will result in a zero for the examination. The student may miss one exam without penalty, as long as the test is made up within the specific time period. If the student misses more than one exam, the exam may be made up, but the maximum score allowed is 80%. The final examination must be taken on the scheduled date and at the scheduled time.

Attendance Policy

Students are expected to attend all classes. If it is necessary to be absent from class the student is responsible for all assignments and materials covered in class. It will be necessary to obtain a fellow classmate's notes or have a classmate tape-record the lecture for you. It is the student's responsibility to make up deficits incurred due to absence from class and to do so in a timely manner. If there are questions or handouts, come and see the instructor as necessary.

Students will be expected to participate in all class activities. Outside assignments include preparation for classroom discussion. Assigned readings and unit objectives are to be completed prior to class time.

Course Schedule

Guest Lecturers:
9/8, 9/15: Alfred Cecchetti: All Scripts/EHR/Data Structure)
10/13: Pete Andresen (Next Gen)
10/20: Nathan Cantrell – Meaningful Use Stages 1, 2, 3

Date	Session Content
8/25	***1: Introduction to Electronic Health Records*** ⇒ Definition of Health Informatics and EHR, History, Benefits of EHR, EHR Migration path (clinical data), EHR. adoption status and Limitations ⇒ Chapter 1 – Electronic Health Records
	Assignments: Read Chapter 2 and 3 Read the articles and identify the key point in each of the three articles listed in the Required Texts, Additional Reading, and Other Material for Session 1.
9/1	***2. Information Systems and EHR adoption*** ⇒ Information systems theory, systems development Life Cycle, challenges and leadership to EHR adoption. ⇒ Quality Improvement Utilizing the EHR – Using the EHR to analyze and learn about Quality Management and performance improvement within the healthcare system. ⇒ Chapter 2 & 3 – Electronic Health Records
	Assignments: Read Chapter 4, 5 and 6 Electronic Health Records
9/8	***3. EHR Project Management, Strategic Planning and Quality Care*** ⇒ Project management tools and resources, strategic planning applied to the EHR and impact on Quality of Care. ⇒ Clinical Decision – Exploring 'order checks' in the EHR and their role in Clinical Decision Making. ⇒ Chapter 4,5,6. – Electronic Health Records by Margret K. Amatayakul ***Guest Speaker:*** Alfred Cecchetti (All Scripts/EHR/Data Structure)
	Assignments: Study Case, You are in charge to evaluate the quality, and the level of implementation of EHR in a health care facility. Develop a check list to evaluate roles, responsibilities, design, implementation and quality including the key elements in EHR project management, strategic planning and quality care.

9/15	***4. Workflow and process mapping tools and skills, Functional needs assessment process, process improvement*** ⇒ Hospital Inpatient Quality Measures – Making a detailed review, or audit, of a chart to determine if the documentation meets the standards outlined in the 'Specifications Manual for National Hospital Inpatient Quality Measures' by the Joint Commission. ⇒ Select a Health care facility and implement the check list designed. Write a report with the conclusions and recommendations to improve. ***Guest Speaker:*** Alfred Cecchetti (All Scripts/EHR/Data Structure)
	Assignments: Test preparation.
9/22	***6. Exam I: Chapter 1, 2, 3, 4***
	Assignments Chapter 9 & 10 Electronic Health Records
9/29	***7. Information Technology and Health Information Systems Infrastructure*** ⇒ Data Infrastructure, Architecture, Network, Interoperability, Standard Messaging Protocols, Documentation and emerging technologies. ⇒ Reporting in the EHR – Utilizing the report functions in the EHR to query Patient Information ⇒ Electronic Health Records Overview ⇒ By Center for Enterprise Modernization, McLean, Virginia. Available at www.ncrr.nih.gov/publications/informatics/ehr.pdf ***Guest Speaker:***
	Assignments: Chapter 12 & 13 Electronic Health Records by Margret K. Amatayakul
10/6	***8. Overview of the current software*** ⇒ Retrieval of Data – Performing Data Retrieval within the EHR that focuses on finding key information from a patient's chart to be used in a research study ⇒ Resource Patient Management System (RPMS) Basic Training. ⇒ By Betty Ruuttila, DSS training Program. Available at: ⇒ www.anthc.org/cs/dit/dss/rpmstraining/upload/RPMS-Basic-Training.PDF ⇒ RPMS Programming Standards and Convention By Indian Health Service – Office of Information Technology.Available at www.ihs.gov/rpms/Downloads/RPMS_ProgrammingSAC 2009.pdf ***Guest Speaker:***
	Assignments: None

10/13	***9. Current Software*** ⇒ Resource and Patient Management System (RPMS) ⇒ Chart Deficit Query/Data Mining in the EHR ⇒ Resource Patient Management System (RPMS) Basic Training ⇒ By Betty Ruuttila, DSS training Program. Available at : ⇒ www.anthc.org/cs/dit/dss/rpmstraining/upload/RPMS-Basic-Training.PDF ⇒ RPMS Programming Standards and Convention By Indian Health Service – Office of Information Technology. Available at www.ihs.gov/rpms/Downloads/RPMS_ProgrammingSAC_2009.pdf

	Guest Speaker: Pete Andresen: Next Gen/ ICD-10
	Assignments: None
10/20	***9. Current Software*** ⇒ Veterans Health Information Systems and Technology Architecture (VISTA) ⇒ Summary and Feedback ⇒ Other Vendors (such as SIEMENS, EPIC, HIMG, etc) ***Guest Speaker:*** Nathan Cantrell – Meaningful Use Stages 1, 2, 3
	Assignments: Write a strategy or criteria's to select, buy and implement a patient management system.
10/27	***10. EXAM II:*** Chapter 5, 6, 7, 8, 9
	Guest Speaker:
11/3	*11. EHR Implementation* ⇒ Development and Deployment of EHR. ⇒ Technical Standards (ANSI) ⇒ Key questions to start EHR. Implementation ⇒ So you've decided to Buy an EHR... ⇒ By West Virginia eHealth Initiative White Paper - Electronic Health Record System Acquisition. Available at ⇒ http://www.wvhin.org/library/ Documents/Library/Reference%20Documents/wvehiwhitepaper%20final09.pdf ⇒ ANSI Standard ANSI/HL7 EHR, System Functional Model – Conformance Clause – Supportive Functions – Information Infrastructure Functions-2007 ⇒ Interview Questions Prior to EHR Implementation ***Guest Speaker:***
	Assignments: Select one health care facility (Ex: Hospital), Choose one section (Ex: RX) and design an strategy step by step to implement EHR on that section.

11/10	***12: Personal Health Records (PHR)*** ⇒ Definition, Policies and practices, legal requirements, safety patient, personalization, prescription, Medical decision and new challenges ⇒ Electronic Health Records: A Practical Guide for Professionals and Organizations. ⇒ By Margret K. Amatayakul, AHIMA. Available at http://library.ahima.org/xpedio/groups/public/documents/ahima/bok1_015872.pdf ***Guest Speaker:***
	Assignments: Prepare the Test Read the article and identify the key points: Hersh, W."A stimulus to define informatics and health information technology" BMC Medical Informatics and Decision Making. 9:24 (May 15,2009). Accessed July 6, 2012. http//www.biomedcentral.com/1472-6947/9/24.
11/17	***13 The Health Insurance Portability and Accountability Act of 1196 (HIPAA)***

	⇒ HIPAA **Term Paper Due** ***Guest Speaker:***
	Assignment: Assignment: Chapter 19 Health Informatics Exchange
12/2	***14 Case Study*** ⇒ West Virginia Health Information Technology Infrastructure: Broadband Availability for Health Care Programs in West Virginia" October 2011. ⇒ Managing transition from paper to electronic health records. ⇒ Security, Audits and Editing Electronic Health Information. ***Guest Speaker:***
12/8	***15. EXAM III: Chapter 11, 12, 13, 14, 15***

Marshall University
Syllabus Template

Course Title/Number	**HP 630- Research Methods and Data Analytics for Health Informatics(elective)** (3 hours)
Semester/Year	Spring 2015
Days/Time	Wednesday, 4:00 pm to 6:20 pm /3hours
Location	GH -
Instructor	**Girmay Berhie**
Office	GH 107
Phone	304-696-2718
E-Mail	berhie@marshall.edu
Web-page	webpages.marshall.edu/~berhie
Office/Hours	By appointment only on day of the class
University Policies	By enrolling in this course, you agree to the University Policies listed below. Please read the full text of each policy be going to www.marshall.edu/academic-affairs and clicking on "Marshall University Policies." Or, you can access the policies directly by going to http://www.marshall.edu/academic-affairs/?page_id=802 Academic Dishonesty/ Excused Absence Policy for Undergraduates/ Computing Services Acceptable Use/ Inclement Weather/ Dead Week/ Students with Disabilities/ Academic Forgiveness/ Academic Probation and Suspension/ Academic Rights and Responsibilities of Students/ Affirmative Action/ Sexual Harassment

Course Description: From Catalog

In this course, students will develop analytical and critical skills, and they will acquire knowledge in research process, from formulating questions to designing, collecting data, and interpreting results.

Course Student Learning Outcomes	How Practiced in this Course	How Assessed in this Course
Acquire research skills to apply in Health informatics	Video – Conference Case- studies Power point presentation Lecture Guest speaker Demonstration of software Benchmarking	Case study Papers Article critique Exam
Identify concepts, methods, tools and strategies to develop research in Health Informatics		
Develop analytical and critical skills to implement the best practices and leadership in research projects		
Biomedical research supported by Health Informatics	Case-studies in Biomedical sciences : Neuroscience and Developmental Biology – Toxicology and Environmental Health Sciences– Cardiovascular disease, Diabetes and Obesity- Infectious and immunological Diseases - Cancer Biology.	Case - Study Analysis

Required Texts, Additional Reading, and Other Materials

Handbook of Evaluation Methods for Health Informatics. Edition 1 Author Jytte Brender ISBN 13:978-0-12-370464-1 ISBN 10: 0-12-370464-2 PUB. DATE: December 21, 2005 PUBLISHER: Oxford
Designing and Conducting Mixed methods Research, 2nd. Edition Author John W. Creswell and Vicki L. Plano Clark ISBN-10: 1412975174 ISBN-13: 978-1412975179

PUB. DATE:
June 22, 2010

PUBLISHER:
SAGE

Research Design: Qualitative, Quantitative, and Mixed Methods Approaches, 3rd Edition.

Author
John W. Creswell

ISBN-10: 1412965578
ISBN-13: 978-1412965576

PUB. DATE:
July 15, 2008

PUBLISHER:
SAGE

Marshall Biomedical Sciences' Researchers Publish e-book on Nutrition and Cancer.

Course Requirements / Due Dates

CLS -105 Clinical Lab Terminology or previous background (undergraduate or courses related) in medical science.

Grading Policy

EXAMINATIONS AND TERM PAPER

There will be 2 examinations (Midterm and Final term) and assignments papers.

GRADES

Activities & Points		Grades
Exam 1:	20%	A: 90 – 100%
Exam 2:	20%	B: 80 – 89%
Term papers (project):	50%	C: 70 – 79%
Attendance:	10%	F: below 70%
Total	100%	

Attendance Policy

Students are expected to attend all classes. If it is necessary to be absent, from class the student is responsible for all assignments and materials covered in class. It will be necessary to obtain a fellow classmate's notes or have a classmate tape-record the lecture for you. It is the student's responsibility to make up deficits incurred due to absence from class and to do so in a timely manner. If there are questions or handouts, come and see the instructor as necessary. Students will be expected to participate in all class activities. Outside assignments include preparation for classroom discussion. Assigned readings and unit objectives are to be completed prior to class time.
MAKE-UP TEST PROCEDURES If it is necessary to be absent during an assigned test period, the student must make-up that examination within one week of the original test date (if the exam is given on Monday, it must be made up PRIOR to the next Monday). Failure to do so will result in a zero for the examination. The student may miss one exam without penalty, as long as the test is made up within the specific time period. If the student misses more than one exam, the exam may be made up, but the maximum score allowed is 80%. The final examination must be taken on the scheduled date and at the scheduled time

Course Schedule

	Session 1 – Presentation and Introduction	**Date:**
Topics	Course requirements, syllabus, objectives, evaluation methods, and introduction lecture. Basic concepts in Evaluation, differences between methodology, method, technique and framework.	
Text	Handbook of Evaluation Methods for Health Informatics. Edition 1	
Assignment	Read Chapter 3 and 4 - Handbook of Evaluation Methods for Health Informatics. Edition 1 Two students has to select one example each one on the book section 2.4 Perspective and prepare a short presentation, with an analysis and critique to promote discussion, brainstorm and conclusions on the group.	
Guest speaker(s)		

	Session 2- Types of user assessment during the phases of a system's life cycle.	Date
Topic	Project life cycle. (explorative, technical development, adaptation and evolution phases)	
Text	**Handbook of Evaluation Methods for Health Informatics. Edition 1**	
Assignment	**Read Chapter 5 and 6**	
Guest speaker(s)		

Session 3 *– Overview of assessment methods*	Date

Topic	Assessment methods per phase (Explorative, technical development, adaptation and evolution)
Text	Handbook of Evaluation Methods for Health Informatics. Edition 1
Assignment	Read chapter 7 According to the professor criteria, students will prepare a short presentation, with a brief description of the method and technique, an analysis and critique to promote discussion, brainstorm and conclusions on the group.
Guest speaker(s)	

	Session 4 – Assessment methods	Date
Topic	Students presentations	
Text	NA	
Assignment	Read Chapter 3 – Choosing a mixed methods design - Designing and Conducting Mixed methods Research, 2nd. Edition	
Guest speaker(s)		

	Session 5*- Choosing a mixed methods design*	Date
Topic	Case study and examples Biomedical Science	
Text	**Designing and Conducting Mixed methods Research, 2nd. Edition**	
Assignment	**Read Chapter 6 – Collecting data**	
Guest speaker(s)		

	Session 6 – Collecting data in mixed methods research	Date
Topic	Collecting data Examples	
Text	**Designing and Conducting Mixed methods Research, 2nd. Edition**	
Assignment	**Read Chapter 7 – Analyzing and Interpreting Data**	
Guest speaker(s)		

	Session 7 – Analyzing and interpreting data in mixed methods research	Date
Topic	Analyzing and interpreting data Examples	

Text	**Designing and Conducting Mixed methods Research, 2nd. Edition**
Assignment	**Read Chapter 8 –Writing and evaluation mixed methods research**
Guest speaker(s)	

	Session 8- *Writing and evaluation mixed methods research*	Date
Topic	**Guidelines for writing, structure of a proposal, evaluation methods**	
Text	Designing and Conducting Mixed methods Research, 2nd. Edition	
Assignment	Write an abstract (2 pages) about one research topic related with Health Informatics. Prepare Exam	
Guest speaker(s)		

	Session 09- **Mid term Exam**	Date
Assignment	Read Part 1 Chapter 4 (Writing strategies and Ethical Considerations) - Research Design: Qualitative, Quantitative, and Mixed Methods Approaches, 3rd Edition	

	Session 10 – Writing strategies and Ethical Considerations	Date
Topic	Writing ideas and proposals Ethical Issues (Research, data collections, data analysis, interpretation and dissemination process) Examples	
Text	Research Design: Qualitative, Quantitative, and Mixed Methods Approaches, 3rd Edition	
Assignment	Read part II, chapter 6 The purpose Statement and chapter 7 Research Questions and Hypotheses	
Guest speaker(s)		

	Session 11- Purpose statement, qualitative and quantitative research questions	Date
Topic	Purpose statement examples Qualitative research questions examples Quantitative research questions examples	
Text	Research Design: Qualitative, Quantitative, and Mixed Methods Approaches, 3rd Edition	
Assignment	Read Part II chapter 8 Quantitative methods	
Guest speaker(s)		

	Session 12 – Quantitative methods	Date
Topic	Definitions, components of a survey, components of an experimental method plan, data analysis in Health Informatics. Examples	
Text	Research Design: Qualitative, Quantitative, and Mixed Methods Approaches, 3rd Edition	
Assignment	Read Part II chapter 9 Qualitative methods	
Guest speaker(s)		

	Session 13 – Qualitative methods	Date
Topic	Characteristics, data collection procedures, data recording, data analysis in Health Informatics. Examples	
Text	Research Design: Qualitative, Quantitative, and Mixed Methods Approaches, 3rd Edition	
Assignment	Using a research project or abstract related with Biomedical sciences (Neuroscience and Developmental Biology – Toxicology and Environmental Health Sciences– Cardiovascular disease, Diabetes and Obesity- Infectious and immunological Diseases - Cancer Biology). Prepare a presentation including an analysis and critique of: a. Statement and hypotheses b. Methodology c. Application of Health Informatics in data collection, data analysis and dissemination (including medical decision). d. Conclusions e. Writing f. Dissemination g. Ethical considerations	
Guest speaker(s)		

	Session 14- Final conclusions	Date
Topic	**Students presentations**	
Text	Research Design: Qualitative, Quantitative, and Mixed Methods Approaches, 3rd Edition	
Assignment	Prepare final exam	
Guest speaker(s)		

Session 15- Final Exam	Date

I'd rather attempt to do something great and fail than to attempt to do nothing and succeed.

~Robert H. Schuller

Course Title/Number	**HP 610 –Healthcare Statistics**
Semester/Year	Fall 2018
Days/Time	Online Course – No Meeting times or dates
Location	Online
Instructor	Girmay Berhie, PhD, MSW, MI-IS
Office	Gullickson Hall (GH) 107
Phone	(304) 696-2718
Email	berhie@marshall.edu
Office/Hours	By Appointment; Open communication via email at any time
University Policies	By enrolling in this course, you agree to the University Policies listed below. Please read the full text of each policy by going to http://www.marshall.edu/academic-affairs/policies/. Academic Dishonesty/ Excused Absence Policy for Undergraduates/ Computing Services Acceptable Use/ Inclement Weather/ Dead Week/ Students with Disabilities/ Academic Forgiveness/ Academic Probation and Suspension/ Academic Rights and Responsibilities of Students/ Affirmative Action/ Sexual Harassment

Course Description from Catalog
Statistical techniques useful in healthcare research and healthcare administrative decision-making including frequency distributions, statistical inference, and application of chi squared, ANOVA, and regression.

Student Learning Outcome (Students will...)	Practiced by:	Assessed by:
Be able to perform statistical analyses including data analysis techniques, measures of central tendency, measures of variation, analysis of variance and sampling distributions.	Reading assignments, Homework	Homework, Projects, Midterm
Be able to understand and apply the normal distribution and chi square distribution to healthcare data.		
Use methods of inferential statistics including hypothesis testing, confidence interval evaluation and analysis of variance on healthcare data.		
Be able to identify the type of data presented in healthcare dataset and use the information to select an appropriate statistical test.		
Be able to summarize, analyze, and report results in clear and coherent form using appropriate statistical software.		
Be able to interpret and apply the results of published statistical studies.		

Required Texts, Additional Reading, and Other Materials	
	Calculating and Reporting Healthcare Statistics, Fourth Edition
Author	Loretta Horton, MeD, RHIA, FAHIMA
ISBN	978-1584263173
Pub. Date	January 1, 2012
Publisher	AHIMA

Health Statistics & Data Resources:

- *http://guides.lib.berkeley.edu/publichealth/healthstatistics/rawdata*
- *https://www.nlm.nih.gov/hsrinfo/datasites.html*
- *http://data.worldbank.org/topic/health*

Articles Referencing HCUP Data

1. Fischer, T. K., Viboud, C., Parashar, U., Malek, M., Steiner, C., Glass, R., & Simonsen, L. (2007). Hospitalizations and deaths from diarrhea and rotavirus among children< 5 years of age in the United States, 1993–2003. Journal of Infectious Diseases, 195(8), 1117-1125.
2. Russo, C. A., & Elixhauser, A. (2006). Hospitalizations related to pressure sores, 2003.
3. Owens, P., & Elixhauser, A. (2006). Hospital admissions that began in the emergency department, 2003.

Course Requirements/Due Dates

Discussion Board Posts

Every week there will be a discussion board post due on the assigned reading for that week.

Homework

There will be homework assignments on each major topic, and will utilize health care data sets.

#	Description	Due beginning of:
1	Introduction, Descriptive Statistics	3rd Week
2	Probability Distributions	5th Week
3	Sampling Distributions	7th Week
4	Hypothesis Testing	10th Week
5	Analysis of Variance	11th Week
6	Regression and Correlation	13th Week
7	Chi-Sqaure and Analysis of Frequency	15th Week

Mid-Term: Due by Midnight Monday of the 9th week of class.

There will be a take home exam that will include multiple choice, t/f, and problem solving questions.

Project Proposal: Must have an explicit detailed write-up of planned project

Project Rough-Draft: Require all parts of the Final Project except Conclusion/Recommendations.

Final Project: Due by Midnight the last day of class.

There will be a final project in where the student will elect a project or be given a project that utilizes a healthcare data set. The project submission will include:

- *Introduction*
- *Hypothesis*
- *Methodology*
- *Findings*
- *Conclusion/Recommendation*
- *Must make use of statistical software.*

Grading Policy

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

Activities & Points

10%	Discussion Board Posts
30%	Homework Assignments
10%	Mid-Term
10%	Project Proposal
10%	Project Rough Draft
20%	Final Project

Late Assignments will be deducted 10% for each day they are turned in late.

100% credit will be given for completing all aspects of the assignment correctly. Any points deducted will have an accompanying explanation.

10% extra credit can be earned on any assignment in which a student goes above and beyond the requirements or produces otherwise exceptional work.

Attendance Policy
Online class: Not applicable.

Course Schedule		
Week	**Text Book**	**Topic**
1	Chapter 1	Introduction to Health Statistics
2	Chapter 2	Mathematics Review
3	Chapter 3	Patient Census Data
4	Chapter 4	Percentage of Occupancy
5	Chapter 5	Length Of Stay
6	Chapter 6	Death (Mortality) Rates
7	Chapter 7	Hospital Autopsies and Autopsy Rates
8	Midterm	Midterm Due
9	Chapter 8	Morbidity and Other Miscellaneous Rates
10	Chapter 9	Statistics Computed within the Health Information Management Department
11	Chapter 10	Descriptive Statistics in Healthcare
12	Chapter 11	Presentation of Data
13	Chapter 12	Basic Research Principles
14	Thanks Giving Break	Thanks Giving Break
15	Chapter 13	Inferential Statistics in Healthcare
16	Finals Week	Final Project Due

Chair: Tracy Christofero | **GC#2: Certificate**

Request for Graduate Addition, Deletion, or Change of a Certificate

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.***

NOTE: *If proposing a new certificate, please read this first:* www.marshall.edu/graduate/graduatecouncil/certificatespolicy/certificatepolicy.pdf

College: Health Professions

Dept/Division: Health Informatics

Contact Person: Girmay Berhie

Phone: 304 696 2718

Name of Certificate: Nursing Informatics

Check action requested: ☒ Addition ☐ Deletion ☐ Change

Effective Term/Year: Fall 2018 ☐ Spring 20 ☐ Summer 20 ☐

Information on the following pages must be completed before signatures are obtained.

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

Dept. Chair/Division Head: Girmay Berhie	Date: 10/30/2017
College Curriculum Chair:	Date: 10/31/17
College Dean:	Date: 10/31/17
Graduate Council Chair: Christofero	Date: 2-22-18
Provost/VP Academic Affairs:	Date:
Presidential Approval:	Date:

Request for Graduate Addition, Deletion, or Change of a Certificate-Page 2

Please provide a rationale for addition, deletion, change:

The discipline of nursing informatics is a well-established specialty within Health Informatics which has grown past the point where nurses simply help IT choose equipment. Now this role is an integral part of healthcare delivery and a differentiating factor in the selection, implementation, and evaluation of health IT that supports safe, high quality, patient-centric care. By offering a Nursing Informatics ~~degree~~ certificate, Marshall will be able to provide continuing education for working nurses enabling them to keep up with the recent adoption of information technology into the healthcare delivery system mandated by the Affordable Care Act.

Please describe any changes in curriculum:
List course number, title, credit hours. Note whether each course is required or optional. Enter NONE if no change.

All courses required:
HP 605 - Role of EHR & PHR (3 Credit Hours)
HP 615 - Health Quality & Safety (3 Credit Hours)
HP 620 - Legal Ethics for Health Care (3 Credit Hours)
HP 630 - Research Methods and Data Analytics for Health Informatics (3 Credit Hours)
IS 535 - Applied Healthcare Databases/Tools (3 Credit Hours)
HP 650 - Practicum 200 hours Nursing Informatics (3 Credit Hours)

1. ADDITIONAL RESOURCE REQUIREMENTS: If your program requires additional faculty, equipment or specialized materials to ADD or CHANGE this certificate, 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 NONE if not applicable.

In order to teach the new course on Database Management, the Health Informatics department needs to acquire one faculty member with a 9-month salary in the range of 50,000 to 70,000. This position will also be requested for other Health Informatics department responsibilities aside from this certificate. The responsibilities will include being a Health Informatics Practicum Coordinator, Health Informatics program promotion, student advising and recruitment, and other administrative responsibilities.

2. NON-DUPLICATION: If a question of possible duplication occurs, attach a copy of the correspondence sent to the appropriate department(s) describing the request and any response received from them. Enter NONE if not applicable.

NONE

For catalog changes as a result of the above actions, please fill in the following pages.

3. *Current* Catalog Description

Insert the *Current* Catalog Description and page number from the latest catalog for entries you would like to change. May attach separate page if needed)

NONE

4. *Edits* to the Current Description

Attach a PDF copy of the current catalog description prepared in MS WORD with strikethroughs to mark proposed deletions and use the highlight function to indicate proposed new text.

5. *New* Catalog Description

Insert a 'clean' copy of your proposed description, i.e., no strikethroughs or highlighting included. This should be what you are proposing for the new description. (May attach separate page if needed).

Attached

Request for Graduate Addition, Deletion, or Change of a Certificate-Page 4

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

Department:
Name of Certificate:
Credit Hours:
Type of Change: *(addition, deletion, change)*
Rationale:

Department: Health Informatics
Name of Certificate: Nursing Informatics
Credit Hours: 18 Credit Hours
Type of Change: Addition
Rationale: The discipline of nursing informatics is a well-established specialty within Health Informatics which has grown past the point where nurses simply help IT choose equipment. Now this role is an integral part of healthcare delivery and a differentiating factor in the selection, implementation, and evaluation of health IT that supports safe, high quality, patient-centric care. By offering a Nursing Informatics ~~degree~~ certificate, Marshall will be able to provide continuing education for working nurses enabling them to keep up with the recent adoption of information technology into the healthcare delivery system mandated by the Affordable Care Act.

Graduate Certificate Program in Nursing Informatics

According to the American Nurse Association (ANA), nursing informatics is a specialty that integrates nursing science, computer science, and information science to manage and communicate data, information, knowledge, and wisdom in the nursing practice. The ultimate goal of Nursing Informatics is to improve patient health through information technology. Nursing Informatics strives to (1) enhance the productivity of nurses by utilizing information technology, (2) facilitate innovative solutions in healthcare, and (3) reduce costs through evidence-based decisions obtained from clinical data.

The Marshall University Nursing Informatics certificate is designed to enable nurses to evaluate and design new or modified information solutions, analyze data in order to improve nursing workflow and reduce errors, act as a liaison between nurses and technical engineers, develop strategies and policies involving information technology in nursing, and understand how information technology is used to ensure patient security and confidentiality.

Nursing informatics is for individuals that have passion for nursing and can see information technology as a tool to achieve improvement in the healthcare arena. The certificate is designed to complement existing nursing degrees and to suit the needs of students and professionals who want to specialize in the fast-expanding field of nursing information. Students who should apply for the certificate program would be individuals with a bachelor's in nursing.

n the HIMSS 2014 Nursing Informatics Workforce Survey, conducted by the Healthcare Information and Management Systems Society, the median salary reported for Nurse Informaticist was $93,000. The average salary reported was $100,717. Health informatics is a rapidly expanding career field. According to the American Medical Informatics Association (AMIA), around 70,000 specialists in this field will be needed within the next few years - including nursing Informaticist.

Admission Requirements

Applicants should follow the admissions process described in the Graduate Catalog, or at the Graduate Admissions website. (Submit all materials to the Graduate Admissions Office.)

Students must meet the following admission requirements:

* Each student must hold a BSN degree from a program accredited by ACEN, CCNE, or equivalent accrediting body.

* Cumulative grade point average of 3.0 on a 4.0 scale for all undergraduate course work.

* Undergraduate coursework must include 3 semester credit hours of basic statistics and 3 semester credit hours of basic research with a grade of "C" or better.

If a student plans to sit for the ANCC-informatics Nursing Credentialing, they must also:

* Hold a current, active RN license in a state or territory of the United States or hold the professional, legally recognized equivalent in another country.

* Have practiced the equivalent of 2 years full-time as a registered nurse immediately prior to application.

Program Requirements: ..... 18 Credit Hours

Students must take the following courses:

HP 605 - Role of EHR & PHR (3 Credit Hours)

HP 615 - Health Quality & Safety (3 Credit Hours)

HP 620 - Legal Ethics for Health Care (3 Credit Hours)

HP 630 - Research Methods and Data Analytics for Health Informatics (3 Credit Hours)

IS 535 - Applied Healthcare Databases/Tools (3 Credit Hours)

HP 650 - Practicum 200 hours Nursing Informatics (3 Credit Hours)

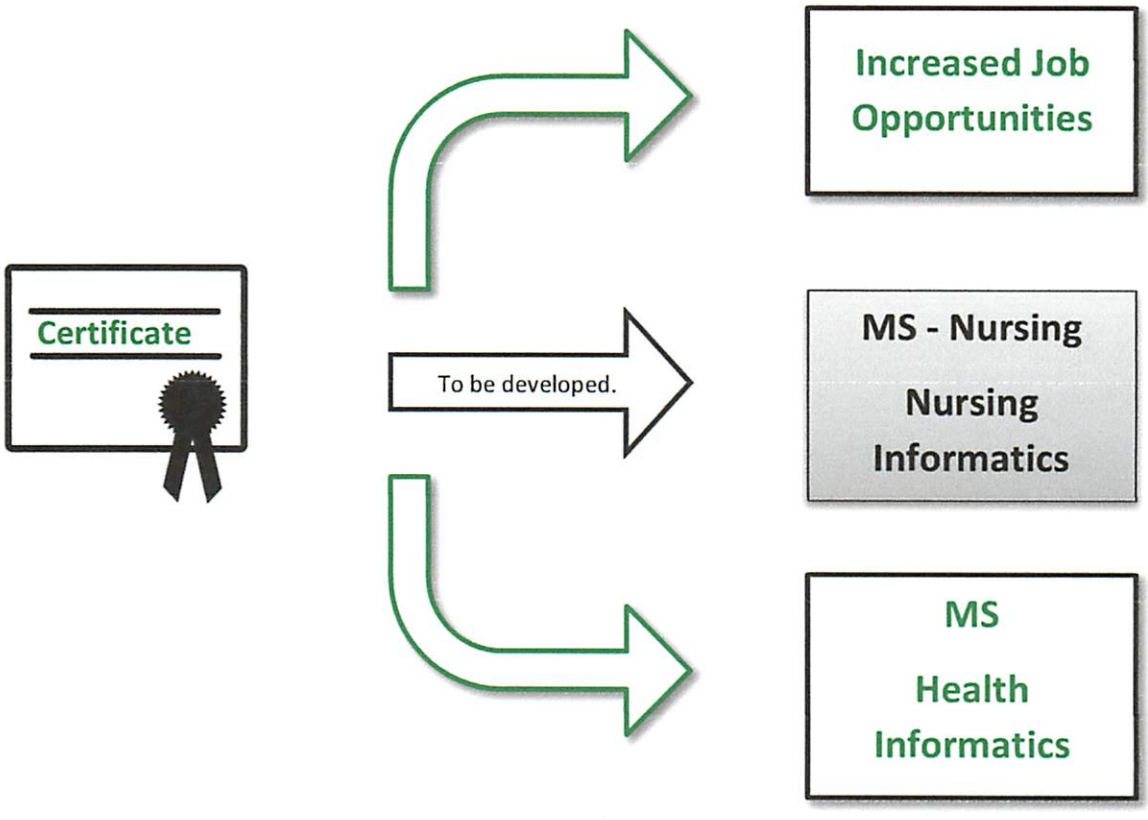
Courses in the certificate can be also applied to a Masters in Health Informatics.

Nursing Informatics
Online Graduate Certificate

Department of Health Informatics

Marshall University

September 26, 2017



Girmay Berhie, Ph.D.

Professor/Director

Online Nursing Informatics Graduate Certificate

The purpose of the Nursing Informatics certificate is to provide nurses with an opportunity to enhance their knowledge and skillset with a crucial element of today's healthcare system – Health Informatics. The nursing informatics certificate can also act as a pathway program to a Master's In Health Informatics and to be developed Masters of Nursing with an emphasis in Nursing Informatics.

Nursing Informatics Certificate Curriculum

Courses	Credits
HP- 605 – Role of EHR & PHR	3
HP- 615 – Health Quality & Safety	3
HP- 620 – Legal and Regulatory Environment for Health Care and Informatics	3
HP- 630 – Research Methods and Data Analytics for Health Informatics	3
IS- 535 – Applied Healthcare Databases /Tools, Or IS 623 – Database Systems	3
HP- 650 – Practicum (200 Hour Nursing Informatics)	3
Total	**18**

Note: *At this time, these courses will NOT be dually listed as HP/NUR, they will be offered as HP courses. We will revisit the idea of dually listing courses upon development of the MSN-Nursing Informatics.*

The above courses have been revised from the standard Health Informatics curriculum. The courses in this graduate certificate have been tailored to the field nursing informatics. That is, it focuses on:

- Foundations of Practice
- System Design Life Cycle
- Data Management and Health Care Technology

See the syllabi for updated books, materials, and assignments.

Curriculum to Nursing Informatics Domain Matching

Domain I: Foundations of Practice	HP 605, HP 615, HP 620, HP 630, HP 650
Domain II: System Design Life	HP 605, HP 615, HP 630, HP 650
Domain III: Data Management and Health care Technology	IS 535/IS 623, HP 630, HP 650

For in depth domain outline, see appendix.

Affiliation Agreement or the Online Nursing Informatics Certificate

In order to offer an online 200-hour faculty supervised practicum experience remotely, students will be responsible for seeking out a facility to obtain their practicum experience. Upon finding a facility, they will be responsible for obtaining a signed copy of the "Affiliation agreement for the distance nursing informatics certificate". See Attached Appendix.

Admission Requirements

Students must meet the following admission requirements:

- Each student must hold a BSN degree from a program accredited by ACEN, CCNE, or equivalent accrediting body.
- Cumulative grade point average of 3.0 on a 4.0 scale for all undergraduate course work.
- Undergraduate coursework must include 3 semester credit hours of basic statistics with a grade of "C" or better.
- Undergraduate coursework must include 3 semester credit hours of basic research with a grade of "C" or better.

If a student plans to sit for the ANCC-Informatics Nursing Credentialing, they must also:

- Hold a current, active RN license in a state or territory of the United States or hold the professional, legally recognized equivalent in another country.
- Have practiced the equivalent of 2 years full-time as a registered nurse immediately prior to application.

ANCC – Informatics Nursing Certification

Upon adding the 200 hours practicum as part of the certificate, we have received verbal confirmation from ANCC that students who fulfill the first three eligibility requirements may sit for the informatics nursing certification after completing of the graduate certificate in nursing informatics. The ANCC representative defined one graduate level credit hour of nursing informatics coursework as equivalent to 15 continuing education hours in nursing informatics.

ANCC Eligibility Criteria

- Hold a current, active RN license within a state or territory of the United States or the professional, legally recognized equivalent in another country.
- Hold a bachelor's or higher degree in nursing or a bachelor's degree in a relevant field.
- Have practiced the equivalent of 2 years full-time as a registered nurse.
- Have completed 30 hours of continuing education in informatics nursing within the last 3 years.

Meet one of the following practice hour requirements:

- Have practiced a minimum of 2,000 hours in informatics nursing within the last 3 years.
- Have practiced a minimum of 1,000 hours in informatics nursing in the last 3 years and completed a minimum of 12 semester hours of academic credit in informatics courses that are part of a graduate-level informatics nursing program.
- Have completed a graduate program in informatics nursing containing a minimum of 200 hours of faculty-supervised practicum in informatics nursing.

Appendix

A. Affiliation Agreement
B. ANCC Nursing Informatics Domain Outline
C. Syllabi

A. Nursing Practicum Affiliation Agreement

AFFILIATION AGREEMENT FOR THE ONLINE NURSING CERTIFICATE

THIS AGREEMENT, effective _____ between the _____ (hereafter known as the FACILITY), and Marshall University on behalf of the Marshall University College of Health Professions (MUCOHP), Graduate Certificate in Nursing Informatics, for the purpose of establishing an extramural training program.

MUTUAL BENEFIT

IT IS AGREED to be of mutual benefit and advantage that the MUCOHP Graduate Certificate in Nursing Informatics ("the Department") and the FACILITY establish a program to provide clinical instruction, practicum experience, and research opportunities to students enrolled in the MUCOHP.

The following provisions shall govern this agreement:

ACADEMIC PREPARATION, ASSIGNMENT, SUPERVISION, RULES

MUCOHP agrees that the students shall have completed academics appropriate to the training activities prior to assignment to the extramural site. The Graduate Certificate in Nursing Informatics Department Director or designee shall make assignment of students with mutual agreement of and advance notice to the FACILITY. When at the FACILITY the students shall observe and act in accordance with the policies and procedures set forth by the FACILITY.

EVALUATION, WITHDRAWAL

FACILITY and MUCOHP shall evaluate the performance of each student. In addition, the FACILITY may request, in writing, that the department withdraw any student whose appearance, conduct, or work with patients or personnel is not in accordance with FACILITY'S policies or other acceptable standards of performance and such request shall be granted by the department. The request shall contain the specific reasons the FACILITY is requesting that the student be removed. Final action of student's evaluation and/or withdrawal is the responsibility of the department.

FACILITY acknowledges and agrees that the students' education records and any personally identifiable information from such education records (collectively "Student Information") created by FACILITY and/or provided by MUCOHP to FACILITY is subject to the confidentiality provisions of the federal Family Educational Rights and Privacy Act, 20 USC § 1232g, ("FERPA") and its implementing regulations (34 C.F.R. Part 99). Accordingly, FACILITY agrees not to disclose or re-disclose any Student Information to any other party without the prior written consent of MUCOHP and the student(s) to whom the Student

Information pertains unless the disclosure or re-disclosure falls under a FERPA exception allowing disclosure without the student(s)' consent. FACILITY also agrees to only use Student Information for the purpose(s) for which the Student Information was disclosed.

If FACILITY receives a court order, subpoena, or similar request for Student Information, FACILITY shall, to the extent permitted by law, notify MUCOHP within two (2) business days of its receipt thereof, and reasonably cooperate with MUCOHP in meeting MUCOH P's and/or FACILITY's FERPA obligations in complying with or responding to such request, subpoena, and/or court order.

LIABILITY

MUCOHP agrees to provide and maintain professional and general liability insurance through the West Virginia State Board of Risk and Management (BRIM) for all faculty and students participating in any clinical program on behalf of MUCOHP. The amount of coverage provided by the State Board of Risk and Insurance Management is One Million Dollars ($1,000,000), per occurrence and at least Three Million ($3,000,000), in the aggregate. (See attached proof of insurance.)
Upon request, the FACILITY will provide proof that it maintains liability insurance in an amount that is commercially reasonable.

HIPAA REQUIRMENTS

To the extent required by federal law, the MUCOHP agrees to comply with the Health Insurance Portability and Accountability Act of 1996, as codified at 42 U.S.C. 1320(d)-2 through 42 U.S.C.§ 1320(d)-4 (HIPAA) and any current and future regulations promulgated there under including without limitation the federal privacy regulations contained in 45 C.F.R. § 160-164 (the Federal Privacy Regulations), the federal security standards contained in 45 C.F.R. § 142 (the Federal Security Regulations), and the federal standard of electronic transactions contained in 45 C.F.R §§ 160 and 162, all collectively referred to herein as HIPAA Requirements; and The Privacy Act found at 5 U.S.C. 552a, et seq.,. The parties agree not to use or further disclose any Protected Health Information (as defined in 45 C.F.R §§ 164.500, et.seq.) or Individually Identifiable Health Information (as defined in 42 U.S.C. § 1320(d)-2 through § 1320(d)-4, other than as permitted by HIPAA Requirements and the terms of this Agreement. MUCOHP will makes its internal practices, books, and records relating to the use and disclosure of Protected Health Information available to the Secretary of Health and Human Services to the extent required for determining compliance with the Federal Privacy Regulations.

NONDISCRIMINATION

MUCOHP agrees that by execution and acceptance of this agreement, MUCOHP will comply with Title VII of the Civil Rights Act of 1964, as amended (42 U.S.C. § 2000d), prohibiting discrimination on the basis of race, color, or national origin; Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. § 794) and Titles one through five of the Americans with Disabilities Act of 1990, both prohibiting discrimination on the basis of Disability; Title IX of the Education Amendments of 1972 (20 U.S.C. §§ 181, 1682), prohibiting discrimination on the basis of age; and U.S. Department of Health and Human Services regulations issued pursuant thereto and found at 45 C.F.R. Parts 80, 81, 84, 86, 90, and 91/

ENTIRE AGREEMENT, REVISIONS, ADDITIONS, EXTENSIONS

This agreement is strictly an agreement for student extramural education. It does not create an employment relationship. This agreement together with provisions (a,b,c,d,e,f) below, constitute the entire agreement between parties and supersedes all previous agreements.

a) This agreement shall be automatically renewed on an annual basis unless terminated by either party.
b) Either party with sixty (60) days prior written notice may terminate this agreement. Any student currently in extramural training at the time of notice should be permitted to complete the program.
c) Notwithstanding the aforementioned, this agreement may be terminated, at any time, and participating student's experience curtailed, in the interest and at the convenience of the United States Government.
d) This agreement will be governed by the laws of the State of West Virginia and Federal law. In the event of a conflict, Federal law shall control.
e) Revisions may be recommended by either party, which becomes effective upon written approval signed by both parties.
f) More specific agreements with individual programs may be entered into as needed.
g) This is a 200hours educationally directed evidence base Nurse Informatics Practicum. The competencies that will covered in the Nursing Informatics Practicum are:
    1. Foundations of Practice (15 competencies)
    2. System Design Life Cycle (24 competencies)
    3. Data Management and Health Care (24 competencies)
h) It is the responsibility of the student to contact agency and find preceptors that fulfills the requirements of the Certificate (see practicum attachment).

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed by their duly authorized representatives intending to be legally bound as of the effective date defined above.

Marshall University
One John Marshall Drive
Huntington, WV 25755
Tel: 304 696-2718

Sign	Sign
Date	Date
Girmay Berhie, Ph.D. MIS Director of Health informatics College of Health Professions Tel: 304 696-2718	Michael Prewitt, Ph.D. Dean of College of Health Professions College of Health Professions Tel: 304 696-3765

Agency:

Name

Address Line 1

Address Line 2

Preceptor(s):

Name	Name
Title	Title
Sign	Sign
Date	Date

B. ANCC Nursing Informatics Domain Outline

I. Foundations of Practice (47.33%)

A. Professional Practice

Knowledge of:

1. Nursing informatics scope and standards of practice
2. Ethical practices related to management of electronic data (e.g., collection, storage, manipulation, dissemination)
3. Healthcare industry trends (e.g., informatics, social media applications, cloud computing)

Skills in:

4. Selecting appropriate modes of communication for the situation (e.g., face-to-face, written, verbal, body language)
5. Team building (e.g., leading teams, selecting members, facilitating teams, participating in teams, assigning roles, promoting accountability)
6. Conflict management
7. Staff development (e.g., performance goal setting, performance appraisal, continuing education, competency development)

B. Models and Theories

Knowledge of:

1. Foundations of nursing informatics (e.g., computer science, information science and nursing science, cognitive science, nursing process, testing and evaluation methodologies)
2. Concepts or theories that support the practice (e.g., nursing, organizational behavior, communication, systems, adult education)
3. Models that support the practice (e.g., data, workflow, and predictive)

Skill in:

4. Facilitating quality outcomes {Quality improvement process} (e.g., FOCUS-PDCA, root cause analysis, failure mode effect analysis, QSEN, TQM, Six Sigma, LEAN)

C. Rules, Regulations, and Requirements

Knowledge of

1. Regulatory and accreditation requirements (e.g., The Joint Commission, Centers for Medicare and Medicaid Services (CMS), Meaningful Use and HITECH (Health Information Technology for Economic and Clinical Health Act), Affordable Care Act, ADA regulations)
2. Legal issues (e.g., malpractice, scope of practice, proprietary data misuse)
3. Security, privacy, and confidentiality regulations, laws, and principles (e.g., HIPAA [Health Insurance Portability and Accountability Act], HITECH [Health Information Technology for Economic and Clinical Health])

Skill in:

4. Writing and reviewing policy and procedures (e.g., clinical documentation, downtime, computerized provider order entry [CPOE], barcode scanning, and security) for compliance and relevance to practice

II. System Design Life Cycle (26.00%)
   A. Planning and Analysis Knowledge of:
      1. Systems planning
      2. Strategic planning (e.g., short-term, long-term)
      3. Skills in:
      4. Planning education (e.g., environment, instructional design, training materials, teaching strategies, and evaluation).
      5. Conducting a clinical information systems needs assessment
      6. Analyzing systems (e.g. gap analysis, workflow analysis, ADA evaluation)
   B. Designing and Building Knowledge of:
      1. Human-Computer interaction (e.g., end user, graphical user interface [GUI], software interface consistency, visual design factors)
      2. Usability (e.g., efficiency, ease of learning and use)
      3. Concepts related to building systems (e.g., barcode medication administration, fetal monitoring interfacing)
      4. Ergonomics (e.g., equipment selection and placement, attributes of the physical environment, and special needs accommodations)
      5. Skills in:
      6. Designing data collection methods to enable the collection of reportable data and improve patient care outcomes.
      7. Designing/redesigning systems to support workflow
   C. Implementing and Testing Knowledge of:
      1. Project management, (e.g., scope, timelines, project management tools, task management, team support, accountability management)
      2. Change management processes (e.g., educating end-users, identifying and vetting change, prioritizing changes)
      3. Skills in:
      4. Testing (e.g., functionality, regression and integration testing, end-user acceptance)
      5. Implementing systems (including conversion, migration, legacy systems)
      6. Managing change effectively
   D. Evaluating, Maintaining, and Supporting Knowledge of:
      1. Systems evaluation, maintenance, and support (e.g., upgrades, optimization, break/fix, enhancement recommendations, ongoing value assessment)
      2. Skills in:
      3. Maintaining and supporting systems including ongoing analysis, decommission, "sun-setting"
      4. Developing tools to collect user feedback summary data
      5. Measuring end user acceptance and satisfaction (e.g., help desk tickets, face to face feedback, performance reports)

III. Data Management and Health Care Technology (26.67%)

A. Data Standards Knowledge of:
   1. Metadata and semantic representation
   2. Concepts related to standardized terminologies (e.g., NIC, NOC, NANDA, SNOMED CT, OMAHA, CCC, CPT, ICD)
   3. Concepts related to technical standards (e.g., HL7, ISO)
   4. Skills in:
   5. Integrating standardized terminologies into clinical informatics practice and software build
   6. Validating interoperability among clinical information systems for seamless integration of patient-related health information

B. Data Management Knowledge of:
   1. Database types, data integration, and data warehousing
   2. Data archiving concepts and principles
   3. Backup processes (e.g., frequency, onsite/offsite, redundancy)
   4. Disaster recovery

C. Data Transformation Knowledge of:
   1. Metastructures: data, information, knowledge (including decision support), and wisdom (including evidence-based practice)
   2. Data mining
   3. Data representation (e.g., graphs, charts, images, reports)
   4. Information retrieval (e.g., referential data bases, web surfing, literature searches)
   5. Skills in:
   6. Querying and reporting from databases (e.g., SQL, SAS)
   7. Selecting appropriate data representation (e.g., graphs, charts, images, reports)

D. Hardware, Software, and Peripherals Knowledge of:
   1. Hardware (e.g., smart devices, tablets, laptops, small footprint computers, all-in-ones)
   2. Clinical devices and equipment management (e.g., electronic beds, IV pumps, physiological monitoring devices, barcode scanners, and automatic dispensing cabinets)
   3. Communication technologies (e.g., networks, encryption, wireless connectivity, RFID, VOIP)
   4. Skills in:
   5. Selecting device types appropriate to different clinical scenarios (e.g., mobile computing, barcode medication administration)
   6. Triage hardware and software related issues for patients and clinical end users
   7. Recommending hardware and software solutions, enhancements, and optimizations to support the nursing process (e.g., operating system compatibility)

Marshall University
Syllabus Template

Course Title/Number	**HP 605 – The role of EHR and PHR** (3 hours credit) **Simulation Lab: Cerner**
Semester/Year	Fall 2017
Days/Time	Monday-4:00 pm to 6:20 pm
Location	GH 123
Instructor	**Girmay Berhie, PhD, MSW, MS-IS**
Office	GH 107
Phone	304-696-2718
E-Mail	berhie@marshall.edu
Web-page	webpages.marshall.edu/~berhie
Office/Hours	By appointment only on day of the class
University Policies	By enrolling in this course, you agree to the University Policies listed below. Please read the full text of each policy be going to www.marshall.edu/academic-affairs and clicking on "Marshall University Policies." Or, you can access the policies directly by going to http://www.marshall.edu/academic-affairs/?page_id=802 Academic Dishonesty/ Excused Absence Policy for Undergraduates/ Computing Services Acceptable Use/ Inclement Weather/ Dead Week/ Students with Disabilities/ Academic Forgiveness/ Academic Probation and Suspension/ Academic Rights and Responsibilities of Students/ Affirmative Action/ Sexual Harassment

Course Description: From Catalog

The course will introduce students to the main concepts of Electronic Health Records and the current EHR systems being used at major health care providers in the US.

	Course Student Learning Outcomes	How Practiced in this Course	How Assessed in this Course
EHR	Describe the factors that led to the emergence of electronic health records.	Video – Conference Case- studies Power point presentation Lecture Guest speaker Demonstration of software Benchmarking	Exam Research project Papers Power point presentation Article critique
	Discuss the concept and evolution of the electronic health record (EHR).		
	Discuss EHR challenges and the supporting roles of health information management professionals in addressing them, especially with respect to privacy, security and legal aspects.		
	Describe the planning and implementation aspects of EHRs.		
	State examples of EHR systems as they may be implemented in various types of care setting.		
	Identify and define terms associated with EHRs.		
	Relate the various initiatives local, regional, and national adoption of EHR and health information technology (HIT).		
	Describe the current state of EHR adoption and the technologies that help transition to the EHR.		
	Explain how paper records are converted to an EHR system.		
	Demonstrate an understanding of how EHR's are used in physician practices.		

EHR & PHR	Demonstrate an understanding of how electronic health records are used in hospitals.	Video – Conference Case- studies Power point presentation Lecture Guest speaker Demonstration of software Benchmarking	Exam Research project Papers Power point presentation Article critique
	Describe the different types of Personal Health Records and explain how PHR's differ from EHR's.		
	Demonstrate an understanding of the challenges to maintain information privacy and security.		
	Compare various types of EMR/EHR systems		
	Based on hands-on experience, describe the benefits of using an electronic health record.		
	Effectively utilize information technology and medical terms as they apply to EHR/EMR.		
	Discuss the concept and evolution of the electronic health record (EHR) and evaluate and defend the current state of the EHR and technologies.		
	Differentiate between heath information type, content, and forms of media.		
	Differentiate between health record data definitions, vocabularies, terminologies and dictionaries.		

HIPPA	Understand the process and key features of HIPAA regulation and its impact on the healthcare professional.	Video – Conference Case- studies Power point presentation Lecture Guest speaker Demonstration of software Benchmarking	Exam Research project Papers Power point presentation Article critique
	Define HIPAA and explain what information must be protected under the privacy laws.		
	Explain HIPAA patient rights		
	Identify consequences for non-compliance with HIPAA Regulations.		
	Define security standards regarding passwords and email.		
	Define security policies regarding network security, including definitions of authentication, VPN, Intrusion detection, Virus Software, and Firewalls.		
	Explain disaster recovery and how to handle paper record disposal.		
	Define Medical Informatics and give an overview of different Healthcare Software Applications.		
	Identify various job roles and job duties that are part of Health Informatics.		
	List Professional Organizations that support Health Informatics		

Required Texts, Additional Reading, and Other Materials

Required:

Health IT and EHRs: Principles and Practice: sixth Edition Margret K. Amatayakul MBA, RHIA, CHPS, CPHIT, CPEHR, FHIMSS **(Requred)**

Electronic Health Records: A Practical Guide for Professionals and Organizations, Fifth Edition, AHIMA Margret K. Amatayakul **(Recommended)**
ISBN 978-1-5842-6291-6

Required Journal Articles for Session 1.

⇒ Health Information Technology for economic and Clinical Health (HITECH) Act, Title XIII of Division A and Title IV of Division B of the American Recovery and Reinvestment Act of 2009 (ARRA), Pub. L. N0'111-5 (Feb 17,2009), codified at 42 U.S.C §§300jj et seq.; §§17901 et seq.

⇒ Kulikowski,C.,Shortliffe E.,L. Currie et al. "AMIA Board white paper: definition of biomedical informatics and specification of core competencies for graduate education in the discipline" Journal of the American Medical Informatics Association. http:/jamia.bmj.com/content/early/2012/06/20 amiajnl-2012-001053.full.

⇒ Jones,S.,Heaton,P.,Rudin,R.,E Schneider. "Unraveling the IT productivity Paradox – Lessons for Health Care" New England Journal of Medicine, 366:24;p.2243-2245.

Recommended:

Medicare Patients Aren't Getting Sicker or Older, But Doctors Are Charging More
MacNeil/Lehrer Productions | video | MLP-2012-09-17-1 | 0h 6m 30s

In 2012, the Center for Public Integrity investigated how Medicare billing changed over the past decade and found doctors were billing at much higher rates. Hari Sreenivasan talks to Center for Public Integrity's Fred Schulte to understand why doctors are 'upcoding' more and why electronic medical records could be driving higher prices. Air Date: 9/17/2012 © MacNeil/Lehrer Productions

Course Requirements / Due Dates

HCA 600- Health Care System in the United States (3hr)

Grading Policy

Graded (Required) Activities	Weight	Final Grade Policy	
Exam 1:	20%	A	90% - 100%
Exam 2:	20%	B	80% - 89%
Exam 3:	20%	C	70% - 79%
Term Paper	30%	F	< 69%
Attendance:	10%		
IRB: RCR Course*	5%		
Total	**105%**		

* Passing the Responsible Conduct of Research (RCR) course for Institutional Board of Research is requirement to pass this course. All researchers, staff and students of NSF sponsored grants are required to complete an educational course. The educational course utilized by Marshall University is the Collaborative Institutional Training Initiative (CITI). You will receive a certificate when you pass the course with an 80% or higher. Send the copy of the certificate to receive completion credit for the course.

Instructions for signing up and completing the RCR course can be found:
http://www.marshall.edu/ori/human-subject-research/education/
On this page, use the instructions link entitled for detailed instructions:
CITI Registration Instructions for Responsible Conduct of Research (RCR) Course

MAKE-UP TEST PROCEDURES

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Attendance Policy

Students are expected to attend all classes. If it is necessary to be absent from class the student is responsible for all assignments and materials covered in class. It will be necessary to obtain a fellow classmate's notes or have a classmate tape-record the lecture for you. It is the student's responsibility to make up deficits incurred due to absence from class and to do so in a timely manner. If there are questions or handouts, come and see the instructor as necessary.

Students will be expected to participate in all class activities. Outside assignments include preparation for classroom discussion. Assigned readings and unit objectives are to be completed prior to class time.

Course Schedule

Guest Lecturers:
9/8, 9/15: Alfred Cecchetti: All Scripts/EHR/Data Structure)
10/13: Pete Andresen (Next Gen)
10/20: Nathan Cantrell – Meaningful Use Stages 1, 2, 3

Date	Session Content
8/25	***1: Introduction to Electronic Health Records*** ⇒ Definition of Health Informatics and EHR, History, Benefits of EHR, EHR Migration path (clinical data), EHR. adoption status and Limitations ⇒ Chapter 1 – Electronic Health Records
	Assignments: Read Chapter 2 and 3 Read the articles and identify the key point in each of the three articles listed in the Required Texts, Additional Reading, and Other Material for Session 1.
9/1	***2. Information Systems and EHR adoption*** ⇒ Information systems theory, systems development Life Cycle, challenges and leadership to EHR adoption. ⇒ Quality Improvement Utilizing the EHR – Using the EHR to analyze and learn about Quality Management and performance improvement within the healthcare system. ⇒ Chapter 2 & 3 – Electronic Health Records
	Assignments: Read Chapter 4, 5 and 6 Electronic Health Records
9/8	***3. EHR Project Management, Strategic Planning and Quality Care*** ⇒ Project management tools and resources, strategic planning applied to the EHR and impact on Quality of Care. ⇒ Clinical Decision – Exploring 'order checks' in the EHR and their role in Clinical Decision Making. ⇒ Chapter 4,5,6. – Electronic Health Records by Margret K. Amatayakul ***Guest Speaker:*** Alfred Cecchetti (All Scripts/EHR/Data Structure)
	Assignments: Study Case, You are in charge to evaluate the quality, and the level of implementation of EHR in a health care facility. Develop a check list to evaluate roles, responsibilities, design, implementation and quality including the key elements in EHR project management, strategic planning and quality care.

9/15	***4. Workflow and process mapping tools and skills, Functional needs assessment process, process improvement*** ⇒ Hospital Inpatient Quality Measures – Making a detailed review, or audit, of a chart to determine if the documentation meets the standards outlined in the 'Specifications Manual for National Hospital Inpatient Quality Measures' by the Joint Commission. ⇒ Select a Health care facility and implement the check list designed. Write a report with the conclusions and recommendations to improve. ***Guest Speaker:*** Alfred Cecchetti (All Scripts/EHR/Data Structure)
	Assignments: Test preparation.
9/22	***6. Exam I: Chapter 1, 2, 3, 4***
	Assignments Chapter 9 & 10 Electronic Health Records
9/29	***7. Information Technology and Health Information Systems Infrastructure*** ⇒ Data Infrastructure, Architecture, Network, Interoperability, Standard Messaging Protocols, Documentation and emerging technologies. ⇒ Reporting in the EHR – Utilizing the report functions in the EHR to query Patient Information ⇒ Electronic Health Records Overview ⇒ By Center for Enterprise Modernization, McLean, Virginia. Available at www.ncrr.nih.gov/publications/informatics/ehr.pdf ***Guest Speaker:***
	Assignments: Chapter 12 & 13 Electronic Health Records by Margret K. Amatayakul
10/6	***8. Overview of the current software*** ⇒ Retrieval of Data – Performing Data Retrieval within the EHR that focuses on finding key information from a patient's chart to be used in a research study ⇒ Resource Patient Management System (RPMS) Basic Training. ⇒ By Betty Ruuttila, DSS training Program. Available at: ⇒ www.anthc.org/cs/dit/dss/rpmstraining/upload/RPMS-Basic-Training.PDF ⇒ RPMS Programming Standards and Convention By Indian Health Service – Office of Information Technology.Available at www.ihs.gov/rpms/Downloads/RPMS_ProgrammingSAC 2009.pdf ***Guest Speaker:***
	Assignments: None

10/13	***9. Current Software*** ⇒ Resource and Patient Management System (RPMS) ⇒ Chart Deficit Query/Data Mining in the EHR ⇒ Resource Patient Management System (RPMS) Basic Training ⇒ By Betty Ruuttila, DSS training Program. Available at : ⇒ www.anthc.org/cs/dit/dss/rpmstraining/upload/RPMS-Basic-Training.PDF ⇒ RPMS Programming Standards and Convention By Indian Health Service – Office of Information Technology. Available at www.ihs.gov/rpms/Downloads/RPMS_ProgrammingSAC_2009.pdf

	Guest Speaker: Pete Andresen: Next Gen/ ICD-10
	Assignments: None
10/20	***9. Current Software*** ⇒ Veterans Health Information Systems and Technology Architecture (VISTA) ⇒ Summary and Feedback ⇒ Other Vendors (such as SIEMENS, EPIC, HIMG, etc) ***Guest Speaker:*** Nathan Cantrell – Meaningful Use Stages 1, 2, 3
	Assignments: Write a strategy or criteria's to select, buy and implement a patient management system.
10/27	***10. EXAM II:*** Chapter 5, 6, 7, 8, 9
	Guest Speaker:
11/3	*11. EHR Implementation* ⇒ Development and Deployment of EHR. ⇒ Technical Standards (ANSI) ⇒ Key questions to start EHR. Implementation ⇒ So you've decided to Buy an EHR... ⇒ By West Virginia eHealth Initiative White Paper - Electronic Health Record System Acquisition. Available at ⇒ http://www.wvhin.org/library/ Documents/Library/Reference%20Documents/wvehiwhitepaper%20final09.pdf ⇒ ANSI Standard ANSI/HL7 EHR, System Functional Model – Conformance Clause – Supportive Functions – Information Infrastructure Functions-2007 ⇒ Interview Questions Prior to EHR Implementation ***Guest Speaker:***
	Assignments: Select one health care facility (Ex: Hospital), Choose one section (Ex: RX) and design an strategy step by step to implement EHR on that section.

11/10	***12: Personal Health Records (PHR)*** ⇒ Definition, Policies and practices, legal requirements, safety patient, personalization, prescription, Medical decision and new challenges ⇒ Electronic Health Records: A Practical Guide for Professionals and Organizations. ⇒ By Margret K. Amatayakul, AHIMA. Available at http://library.ahima.org/xpedio/groups/public/documents/ahima/bok1_015872.pdf ***Guest Speaker:***
	Assignments: Prepare the Test Read the article and identify the key points: Hersh, W."A stimulus to define informatics and health information technology" BMC Medical Informatics and Decision Making. 9:24 (May 15,2009). Accessed July 6, 2012. http//www.biomedcentral.com/1472-6947/9/24.
11/17	***13 The Health Insurance Portability and Accountability Act of 1196 (HIPAA)***

	⇒ HIPAA **Term Paper Due** ***Guest Speaker:***
	Assignment: Assignment: Chapter 19 Health Informatics Exchange
12/2	***14 Case Study*** ⇒ West Virginia Health Information Technology Infrastructure: Broadband Availability for Health Care Programs in West Virginia" October 2011. ⇒ Managing transition from paper to electronic health records. ⇒ Security, Audits and Editing Electronic Health Information. ***Guest Speaker:***
12/8	***15. EXAM III: Chapter 11, 12, 13, 14, 15***

Marshall University
Syllabus Template

Course Title/Number	**HP 615 – Quality and Performance Improvement** (3 hours)
Semester/Year	Fall 2017
Days/Time	Thursday 4:00 pm to 6:20 pm /3hours
Location	GH -
Instructor	**Girmay Berhie, PhD, MSW, MS-IS**
Office	GH 107
Phone	304-696-2718
E-Mail	berhie@marshall.edu
Web-page	webpages.marshall.edu/~berhie
Office/Hours	By appointment only on day of the class
University Policies	By enrolling in this course, you agree to the University Policies listed below. Please read the full text of each policy be going to www.marshall.edu/academic-affairs and clicking on "Marshall University Policies." Or, you can access the policies directly by going to http://www.marshall.edu/academic-affairs/?page_id=802 Academic Dishonesty/ Excused Absence Policy for Undergraduates/ Computing Services Acceptable Use/ Inclement Weather/ Dead Week/ Students with Disabilities/ Academic Forgiveness/ Academic Probation and Suspension/ Academic Rights and Responsibilities of Students/ Affirmative Action/ Sexual Harassment

Course Description: From Catalog

Students will learn skills in data analysis, performance improvement tools, and data presentation to address the issues involved in the quality management and performance improvement in the health care settings.

Course Student Learning Outcomes	How Practiced in this Course	How Assessed in this Course
Understand Quality and Performance Improvement activities within the health care setting to include terminology, Health Information Management's role, and the impact of accreditation, regulatory, and federal agencies upon these activities.	Video – Conference Case- studies Power point presentation Lecture Guest speaker Demonstration of software Benchmarking	Exam Research project Papers Power point presentation Article critique
Understand and use performance improvement methods to develop performance measures, assess performance, and apply data analysis and presentation skills.		
Define how utilization management and case management activities contribute to resource and quality management of patient care.		
Understand the purpose and value of an effective risk management program to the health care organization.		
Define and understand how to use performance improvement tools, techniques and how to develop performance measures.		
Use data analysis and presentation skills in the assessment of performance.		
List external and internal influences that have caused hospitals to monitor quality.		
Define the terms and acronyms used in quality and performance improvement programs in health care.		
Define and state the purposes of quality assurance/quality improvement/performance improvement	Video – Conference Case- studies Power point presentation Lecture Guest speaker Demonstration of software Benchmarking	Exam Research project Papers Power point presentation Article critique
Understand the concepts of performance measurement and assessment as they relate to quality and performance improvement.		
Identify a state Quality Improvement Organization and the current priority performance improvement topics.		
Understand the role of the HIM professional in a health care facility's performance improvement activities		
Identify components of a utilization management plan.		

Required Texts, Additional Reading, and Other Materials

Managing Health Organizations For Quality And Performance \ Author L. Fleming Fallon Jr., James W. Begun, William J. Riley ISBN: 1449653278 ISBN-13: 9781449653279 PUB. DATE: February 2012 PUBLISHER: Jones & Bartlett Learning
Quality and Performance Improvement in Healthcare: A Tool for Programmed Learning, Fifth Edition Author Patricia L. Shaw, MEd, RHIA, FAHIMA Chris Elliott, MS, RHIA Product# :AB102711 ISBN # : 9781584263104 Publisher : AHIMA Press Copyright : 2012

Course Requirements / Due Dates

HCA 600-Health Care System

Grading Policy

EXAMINATIONS AND TERM PAPER There will be 2 examinations (Midterm and Final term) and assignments papers.

GRADES

Activities & Points		Grades
Exam 1:	20%	A: 90 – 100%
Exam 2:	20%	B: 80 – 89%
Term papers (project):	50%	C: 70 – 79%
Attendance:	10%	F: below 70%
Total	100%	

Attendance Policy

Students are expected to attend all classes. If it is necessary to be absent, from class the student is responsible for all assignments and materials covered in class. It will be necessary to obtain a fellow classmate's notes or have a classmate tape-record the lecture for you. It is the student's responsibility to make up deficits incurred due to absence from class and to do so in a timely manner. If there are questions or handouts, come and see the instructor as necessary.

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Course Schedule

	Session 1 – Presentation	**Date:**
Topics	Course requirements, syllabus, objectives, evaluation methods, and introduction lecture.	
Text	Not Apply	
Assignment	Read Chapter 1 & 2- Quality and Performance Improvement in Healthcare: A Tool for Programmed Learning, Fifth Edition	
Guest speaker(s)	Girmay Berhie, PhD	

	Session 2-Managing for Quality and Performance	Date
Topic	Defining a Performance Improvement Model and Identifying Improvement Opportunities Based on Performance Measurement: 1. Performance Improvement/Research Advisory Panel: A Model for Determining Whether a	

	Project is a Performance or Quality Improvement Activity or Research 2. Design of a quality and performance improvement project for small primary care practices 3. Challenges and Opportunities in Measuring the Quality of Mental Health Care Satisfaction with the Billing Process Using a Patient Survey to Identify Opportunities for Process Improvement 4. Systems Thinking
Text	**Quality and Performance Improvement in Healthcare: A Tool for Programmed Learning, Fifth Edition** **Chapter 1 - Defining a Performance Improvement Model** **Chapter 2 - Identifying Improvement Opportunities Based on Performance Measurement**
	Managing Health Organizations For Quality And Performance **Chapter 1 - Introduction**
Assignment	**Read Chapter 3- Quality and Performance Improvement in Healthcare: A Tool for Programmed Learning, Fifth Edition** **Read Chapter 2 – Managing Health Organizations For Quality And Performance**
Guest speaker(s)	Girmay Berhie, PhD

	Session 3 – The policy Context For Management & Strategic Planning	Date
Topic	Policy-making process, US Health policy, Policy and management Applying teamwork in performance Improvement Article: 1. Facilitating quality improvement team performance: a developmental perspective Fostering Teamwork in an Intermediate Care Unit	
Text	**Chapter 3 – Quality and Performance Improvement in Healthcare: A Tool for Programmed Learning, Fifth Edition**	
	Chapter 2 – Managing Health Organizations For Quality And Performance	
Assignment	**Write a paper about (1 page):** **Based in a national and corporate policy define basic team works in a health care facility to ensure performance improvement.**	
Guest speaker(s)	Girmay Berhie, PhD	

	Session 4 – Organizational Structure and Improvement	Date
Topic	Structuring for improvement (organizational structure) Data types, data display techniques and data analysis to support performance improvement	
Text	**Chapter 4 - Quality and Performance Improvement in Healthcare: A Tool for Programmed Learning, Fifth Edition**	
	Chapter 6 - Managing Health Organizations For Quality And Performance	
Assignment	**Select a Health care facility, and one specific area. Write a mission and vision statement and develop a communication strategy applying the concepts in communication performance**	

	improvement described in chapter 5 -Quality and Performance Improvement in Healthcare: A Tool for Programmed Learning, Fifth Edition
Guest speaker(s)	Girmay Berhie, PhD

	Session 5- Measuring Customer Satisfaction	Date
Topic	Present case study for small-group discussion with summarization by class Article: 1. Improving Patient Satisfaction by Sharing the Inpatient Daily Plan of Care Development and Psychometric Validation of the General Practice Nurse Satisfaction Scale.	
Text	**Chapter 6 - Quality and Performance Improvement in Healthcare: A Tool for Programmed Learning, Fifth Edition**	
Assignment	**Read Chapter 7 - Quality and Performance Improvement in Healthcare: A Tool for Programmed Learning, Fifth Edition**	
Guest speaker(s)	Girmay Berhie, PhD	

	Session 6 - Refining the Continuum of Care	Date
Topic	Optimizing the Continuum of Care Article: 1. The new continuum of Glaucoma Management: New Diagnostic and Treatment Options to Optimize Patient Care 2. The Relationship Between Program Restrictiveness and Youth Behavior Problems After Critical Care a study to explore patients' experiences of a follow up service	
Text	**Chapter 7 (Refining The Continuum of Care)**	
Assignment	**Chapter 8 (Improving the Provision of Care, Treatment, and Services)- Quality and Performance Improvement in Healthcare: A Tool for Programmed Learning, Fifth Edition**	
Guest speaker(s)	Girmay Berhie, PhD	

	Session 7 –Preparing for emergencies, preventing and controlling infectious	Date
Topic	Preparing for Emergencies Managing the Infections Disease Experience Article: 1. Managing the care of patients with herpes zoster ophthalmicus Managing MRSA Video: Emergency Response	
Text	**Chapter 9 (Preventing and Controlling Infectious Disease) - Quality and Performance Improvement in Healthcare: A Tool for Programmed Learning, Fifth Edition.** **Chapter 10 (Decreasing Risk Exposure) - Quality and Performance Improvement in Healthcare: A Tool for Programmed Learning, Fifth Edition.**	

	Chapter 5 (Preparing for Emergencies) - Managing Health Organizations For Quality And Performance.
Assignment	**Read and identify management points to ensure effective control risk and emergencies procedures.** **Chapter 10 (Decreasing Risk Exposure) - Quality and Performance Improvement in Healthcare: A Tool for Programmed Learning, Fifth Edition.** **Chapter 5 (Preparing for Emergencies) - Managing Health Organizations For Quality And Performance.**
Guest speaker(s)	Girmay Berhie, PhD

	Session 8- Decreasing Risk Exposure	Date
Topic	Article: 1. Incident reporting practices in the preanalytical phase Low reported frequencies in the primary health care setting Incident reporting improves safety: the use of the RAID process for improving incident reporting and learning within primary care	
Text	Chapter 10 (Decreasing Risk Exposure) - Quality and Performance Improvement in Healthcare: A Tool for Programmed Learning, Fifth Edition. Chapter 5 (Preparing for Emergencies) - Managing Health Organizations For Quality And Performance.	
Assignment	Read Chapter 11 (Building a Safe Medication Management System) - Quality and Performance Improvement in Healthcare: A Tool for Programmed Learning, Fifth Edition.	
Guest speaker(s)	Girmay Berhie, PhD	

	Session 09- Building a Safe Medication Management System	Date
Topic	Optimizing Patient Care Article: 1. A Quality Improvement Model for Optimizing Care of the Diabetic End-Stage Renal Disease Patient Optimizing the care of patients with depression in primary care the views of general practitioners. Video: Topic - Medical decision and personalized medicine new challenges.	
Text	**Chapter 11 (Building a Safe Medication Management System)- Quality and Performance Improvement in Healthcare: A Tool for Programmed Learning, Fifth Edition.**	

Assignment	**Select an article from a medical journal related with medical decisions and do a critique. (Summarize the article – identify advantages and disadvantage – Choose three key points or statements that you will implement in your professional job).**
Guest speaker(s)	Girmay Berhie, PhD

	Session 10 - Managing the Environment of Care	Date
Topic	Improving the Care Environment and Safety Article: 1. Using observations of care to focus risk management and quality improvement activities in the clinicalsetting. 2. Medical emergency team a strategy for improving patient care and nursing work environments.	
Text	Chapter 11 – Building a safe medication management system- Quality and Performance Improvement in Healthcare: A Tool for Programmed Learning, Fifth Edition Chapter 12 (Managing the Environment of Care)- Quality and Performance Improvement in Healthcare: A Tool for Programmed Learning, Fifth Edition	
Assignment	Chapter 13 (Developing Staff and Human Resources) - Quality and Performance Improvement in Healthcare: A Tool for Programmed Learning, Fifth Edition. Chapter 8 (Organizing Human Resources) – Managing Health Organizations for Quality and Performance.	
Guest speaker(s)	Girmay Berhie, PhD	

	Session 11- Developing Staff and Human Resources	Date
Topic	Developing Staff and Human Resources Article: 1. Human Resource Needs, Health Care Reform, And The Practice Of Medicine/Psychiatry. 2. Cost Effective Human resource Development in Health Care.	
Text	Chapter 13 (Developing Staff and Human Resources) - Quality and Performance Improvement in Healthcare: A Tool for Programmed Learning, Fifth Edition. Chapter 8 (Organizing Human Resources) – Managing Health Organizations for Quality and Performance.	
Assignment	Define a profile for the Health Informatics professional in a Health Care Facility	
Guest speaker(s)	Girmay Berhie, PhD	

	Session 12 – Managing Finance and Budgets	Date
Topic	1. Business Plans 2. Budgets 3. Operating Budget for EHR. and PHR	
Text	Chapter 15 (Managing Finance and Budgets) – Managing Health Organizations for Quality and Performance	
Assignment	Write a paper about: How business plan should include Medical Decision and Safety Patient?	
Guest speaker(s)	Girmay Berhie, PhD	

	Session 13-Managing the Human Side of Change	Date
Topic	Change Management Strategies	
Text	Chapter 18 (Managing the Human Side of Change) - Quality and Performance Improvement in Healthcare: A Tool for Programmed Learning, Fifth Edition Chapter 17 (Managing Change) - Managing Health Organizations for Quality and Performance	
Assignment	Read Chapter 15 (Navigating the Accreditation, Certification, or Licensure Process) - Quality and Performance Improvement in Healthcare: A Tool for Programmed Learning, Fifth Edition	
Guest speaker(s)	Girmay Berhie, PhD	

	Session 14- Navigating the Accreditation, Certification, or Licensure Process	Date
Topic	Change Management Strategies	
Text	Chapter 15 (Navigating the Accreditation, Certification, or Licensure Process) - Quality and Performance Improvement in Healthcare: A Tool for Programmed Learning, Fifth Edition	
Assignment	Prepare final test.	
Guest speaker(s)	Girmay Berhie, PhD	

	Session 15- Final test	Date
Topic	**Final test**	
Guest speaker(s)	Girmay Berhie, PhD	

I'd rather attempt to do something great and fail than to attempt to do nothing and succeed.

~Robert H. Schuller

Course Title/Number	**HP 620 – Legal and Regulatory Environment for Health Care and Informatics**
Semester/Year	Fall 2017
Days/Time	Tuesday, 4:00 pm to 6:20 pm ~ 3 hours
Location	GH 121
Instructor	Girmay Berhie, Ph.D.
Office	GH 107
Phone	(304) 696-2718
Email	berhie@marshall.edu
Web-page	http://www.marshall.edu/health-informatics/
Office/Hours	By Appointment only on day of the class
University Policies	By enrolling in this course, you agree to the University Policies listed below. Please read the full text of each policy by going to http://www.marshall.edu/academic-affairs/policies/. Academic Dishonesty/ Excused Absence Policy for Undergraduates/ Computing Services Acceptable Use/ Inclement Weather/ Dead Week/ Students with Disabilities/ Academic Forgiveness/ Academic Probation and Suspension/ Academic Rights and Responsibilities of Students/ Affirmative Action/ Sexual Harassment

Course Description from Catalog
The course will introduce students to IT governance to improve efficiency, innovation, growth, customer response and business competitiveness in terms of health information ethic and legal requirements.

Student Learning Outcome	**Practiced by:**	**Assessed by:**
Understand the role of IT in Health care management and Health Information systems.	Video – Conference Case- studies Power point presentation Lecture/Guest speaker Demonstration of software Benchmarking	Case study Papers Article critique Exam
Develop analytical and critical skills to select the best practices and leadership improvement performance		

Required Texts, Additional Reading, and Other Materials	
	Legal: *Legal and Ethical Aspects of Health Information Management, Edition 4*
Author	Dana C. Mc.Way, JD, RHIA
ISBN	978-1435483309
Pub. Date	December 31, 2014
Publisher	Delmar Cengage Learning
	IT: *IT Governance: How top performers manage IT Decision Rights for superior Results*
Author	Peter Weill & Jeanne W.Ross
ISBN	1-59139-253-5
Pub. Date	June, 2004
Publisher	Harvard Business Review Press

Course Requirements/Due Dates		
Term Paper Proposal	5%	February 24th, 2016
Midterm - Legal Chapters 1-11	20%	March 2nd, 2016
Chapter Presentation	10%	To Be Assigned (Mar 16th – April 20th)
Term Paper Draft	10%	March 30th, 2016
Term Paper Presentation	10%	April 20th, April 27th, 2016
Term Paper Final	20%	April 27th, 2016
Final - Legal Chapters 12-15 IT All Chapters	20%	May 4th, 2016
Attendance	5%	All Class Periods

Grading Policy	
A	90-100%
B	80-89%
C	70-79%
F	Below 70%

Attendance Policy

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Course Schedule			
	Date	**Topic**	**Due**
1	Jan-13	Course requirements, syllabus, objectives, evaluation methods, and introduction lecture. Chapter 1 – Legal	Your Attendance
2	Jan-20	Chapter 1: Legal; Chapter 2: Legal	Read Chapter 1: Legal Read Chapter 2: Legal
3	Jan-27	Chapter 3: Legal; Chapter 4: Legal	Read Chapter 3: Legal Read Chapter 4: Legal
4	Feb-03	Chapter 5: Legal, Chapter 6: Legal	Read Chapter 5: Legal Read Chapter 6: Legal
5	Feb-10	Chapter 7: Legal, Chapter 8: Legal	Read Chapter 7: Legal Read Chapter 8: Legal
6	Feb-17	Chapter 9: Legal, Chapter 10: Legal	Read Chapter 9: Legal Read Chapter 10: Legal
7	Feb-24	Chapter 11: Legal, Chapter 12: Legal	Read Chapter 11: Legal Read Chapter 12: Legal Paper Proposal
8	Mar-02	Midterm	
9	Mar-09	Chapter 12: Legal, Chapter 13: Legal	Read Chapter 13: Legal Read Chapter 14: Legal
10	Mar-16	Chapter 15: Legal, Chapter 1: IT	Read Chapter 15: Legal Read Chapter 1: IT IT Chapter 1 Presentation
11	Mar-23	Spring Break	
12	Mar-30	Chapter 2: IT, Chapter 3: IT	Read Chapter 2: IT Read Chapter 3: IT IT Chapter 2 Presentation IT Chapter 3 Presentation Paper Draft 1
13	Apr-06	Chapter 4: IT, Chapter 5: IT	Read Chapter 4: IT Read Chapter 5: IT IT Chapter 4 Presentation IT Chapter 5 Presentation
14	Apr-13	Chapter 6: IT, Chapter 7: IT	Read Chapter 6: IT Read Chapter 7: IT IT Chapter 6 Presentation IT Chapter 7 Presentation
15	Apr-20	Chapter 8: IT, Term Paper Presentations	Read Chapter 8: IT IT Chapter 8 Presentation Paper Presentations
16	Apr-27	Term Paper Presentations	Paper Presentations Final Paper Due
17	May-04	Final Exam	

NOTE: *If I obtain a guest lecturer for any day on this schedule. You will still be responsible for the assigned readings and the PPTs will be made available to you. If you were supposed to present a chapter that day, I will expect you to record your presentation and make it as well as your presentation materials (i.e. ppt, prezi, notes, and suggested exam questions) available to your classmates via blackboard.*

Marshall University
Syllabus Template

Course Title/Number	**HP 630- Research Methods and Data Analytics for Health Informatics(elective)** (3 hours)
Semester/Year	Spring 2015
Days/Time	Wednesday, 4:00 pm to 6:20 pm /3hours
Location	GH -
Instructor	**Girmay Berhie**
Office	GH 107
Phone	304-696-2718
E-Mail	berhie@marshall.edu
Web-page	webpages.marshall.edu/~berhie
Office/Hours	By appointment only on day of the class
University Policies	By enrolling in this course, you agree to the University Policies listed below. Please read the full text of each policy be going to www.marshall.edu/academic-affairs and clicking on "Marshall University Policies." Or, you can access the policies directly by going to http://www.marshall.edu/academic-affairs/?page_id=802 Academic Dishonesty/ Excused Absence Policy for Undergraduates/ Computing Services Acceptable Use/ Inclement Weather/ Dead Week/ Students with Disabilities/ Academic Forgiveness/ Academic Probation and Suspension/ Academic Rights and Responsibilities of Students/ Affirmative Action/ Sexual Harassment

Course Description: From Catalog

In this course, students will develop analytical and critical skills, and they will acquire knowledge in research process, from formulating questions to designing, collecting data, and interpreting results.

Course Student Learning Outcomes	How Practiced in this Course	How Assessed in this Course
Acquire research skills to apply in Health informatics	Video – Conference Case- studies Power point presentation Lecture Guest speaker Demonstration of software Benchmarking	Case study Papers Article critique Exam
Identify concepts, methods, tools and strategies to develop research in Health Informatics		
Develop analytical and critical skills to implement the best practices and leadership in research projects		
Biomedical research supported by Health Informatics	Case-studies in Biomedical sciences : Neuroscience and Developmental Biology – Toxicology and Environmental Health Sciences– Cardiovascular disease, Diabetes and Obesity- Infectious and immunological Diseases - Cancer Biology.	Case - Study Analysis

Required Texts, Additional Reading, and Other Materials

Handbook of Evaluation Methods for Health Informatics. Edition 1 Author Jytte Brender ISBN 13:978-0-12-370464-1 ISBN 10: 0-12-370464-2 PUB. DATE: December 21, 2005 PUBLISHER: Oxford
Designing and Conducting Mixed methods Research, 2nd. Edition Author John W. Creswell and Vicki L. Plano Clark ISBN-10: 1412975174 ISBN-13: 978-1412975179

PUB. DATE:
June 22, 2010

PUBLISHER:
SAGE

Research Design: Qualitative, Quantitative, and Mixed Methods Approaches, 3rd Edition.

Author
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July 15, 2008

PUBLISHER:
SAGE

Marshall Biomedical Sciences' Researchers Publish e-book on Nutrition and Cancer.

Course Requirements / Due Dates

CLS -105 Clinical Lab Terminology or previous background (undergraduate or courses related) in medical science.

Grading Policy

EXAMINATIONS AND TERM PAPER

There will be 2 examinations (Midterm and Final term) and assignments papers.

GRADES

Activities & Points		Grades
Exam 1:	20%	A: 90 – 100%
Exam 2:	20%	B: 80 – 89%
Term papers (project):	50%	C: 70 – 79%
Attendance:	10%	F: below 70%
Total	100%	

Attendance Policy

Students are expected to attend all classes. If it is necessary to be absent, from class the student is responsible for all assignments and materials covered in class. It will be necessary to obtain a fellow classmate's notes or have a classmate tape-record the lecture for you. It is the student's responsibility to make up deficits incurred due to absence from class and to do so in a timely manner. If there are questions or handouts, come and see the instructor as necessary. Students will be expected to participate in all class activities. Outside assignments include preparation for classroom discussion. Assigned readings and unit objectives are to be completed prior to class time.
MAKE-UP TEST PROCEDURES If it is necessary to be absent during an assigned test period, the student must make-up that examination within one week of the original test date (if the exam is given on Monday, it must be made up PRIOR to the next Monday). Failure to do so will result in a zero for the examination. The student may miss one exam without penalty, as long as the test is made up within the specific time period. If the student misses more than one exam, the exam may be made up, but the maximum score allowed is 80%. The final examination must be taken on the scheduled date and at the scheduled time

Course Schedule

	Session 1 – Presentation and Introduction	**Date:**
Topics	Course requirements, syllabus, objectives, evaluation methods, and introduction lecture. Basic concepts in Evaluation, differences between methodology, method, technique and framework.	
Text	Handbook of Evaluation Methods for Health Informatics. Edition 1	
Assignment	Read Chapter 3 and 4 - Handbook of Evaluation Methods for Health Informatics. Edition 1 Two students has to select one example each one on the book section 2.4 Perspective and prepare a short presentation, with an analysis and critique to promote discussion, brainstorm and conclusions on the group.	
Guest speaker(s)		

	Session 2- Types of user assessment during the phases of a system's life cycle.	Date
Topic	Project life cycle. (explorative, technical development, adaptation and evolution phases)	
Text	**Handbook of Evaluation Methods for Health Informatics. Edition 1**	
Assignment	**Read Chapter 5 and 6**	
Guest speaker(s)		

Session 3 – Overview of assessment methods	Date

Topic	Assessment methods per phase (Explorative, technical development, adaptation and evolution)
Text	Handbook of Evaluation Methods for Health Informatics. Edition 1
Assignment	Read chapter 7 According to the professor criteria, students will prepare a short presentation, with a brief description of the method and technique, an analysis and critique to promote discussion, brainstorm and conclusions on the group.
Guest speaker(s)	

	Session 4 – Assessment methods	Date
Topic	Students presentations	
Text	NA	
Assignment	Read Chapter 3 – Choosing a mixed methods design - Designing and Conducting Mixed methods Research, 2nd. Edition	
Guest speaker(s)		

	Session 5- Choosing a mixed methods design	Date
Topic	Case study and examples Biomedical Science	
Text	**Designing and Conducting Mixed methods Research, 2nd. Edition**	
Assignment	**Read Chapter 6 – Collecting data**	
Guest speaker(s)		

	Session 6 – Collecting data in mixed methods research	Date
Topic	Collecting data Examples	
Text	**Designing and Conducting Mixed methods Research, 2nd. Edition**	
Assignment	**Read Chapter 7 – Analyzing and Interpreting Data**	
Guest speaker(s)		

	Session 7 – Analyzing and interpreting data in mixed methods research	Date
Topic	Analyzing and interpreting data Examples	

Text	**Designing and Conducting Mixed methods Research, 2nd. Edition**
Assignment	**Read Chapter 8 –Writing and evaluation mixed methods research**
Guest speaker(s)	

	Session 8- *Writing and evaluation mixed methods research*	Date
Topic	**Guidelines for writing, structure of a proposal, evaluation methods**	
Text	Designing and Conducting Mixed methods Research, 2nd. Edition	
Assignment	Write an abstract (2 pages) about one research topic related with Health Informatics. Prepare Exam	
Guest speaker(s)		

	Session 09- **Mid term Exam**	Date
Assignment	Read Part 1 Chapter 4 (Writing strategies and Ethical Considerations) - Research Design: Qualitative, Quantitative, and Mixed Methods Approaches, 3rd Edition	

	Session 10 – Writing strategies and Ethical Considerations	Date
Topic	Writing ideas and proposals Ethical Issues (Research, data collections, data analysis, interpretation and dissemination process) Examples	
Text	Research Design: Qualitative, Quantitative, and Mixed Methods Approaches, 3rd Edition	
Assignment	Read part II, chapter 6 The purpose Statement and chapter 7 Research Questions and Hypotheses	
Guest speaker(s)		

	Session 11- Purpose statement, qualitative and quantitative research questions	Date
Topic	Purpose statement examples Qualitative research questions examples Quantitative research questions examples	
Text	Research Design: Qualitative, Quantitative, and Mixed Methods Approaches, 3rd Edition	
Assignment	Read Part II chapter 8 Quantitative methods	
Guest speaker(s)		

	Session 12 – Quantitative methods	Date
Topic	Definitions, components of a survey, components of an experimental method plan, data analysis in Health Informatics. Examples	
Text	Research Design: Qualitative, Quantitative, and Mixed Methods Approaches, 3rd Edition	
Assignment	Read Part II chapter 9 Qualitative methods	
Guest speaker(s)		

	Session 13 – Qualitative methods	Date
Topic	Characteristics, data collection procedures, data recording, data analysis in Health Informatics. Examples	
Text	Research Design: Qualitative, Quantitative, and Mixed Methods Approaches, 3rd Edition	
Assignment	Using a research project or abstract related with Biomedical sciences (Neuroscience and Developmental Biology – Toxicology and Environmental Health Sciences– Cardiovascular disease, Diabetes and Obesity- Infectious and immunological Diseases - Cancer Biology). Prepare a presentation including an analysis and critique of: a. Statement and hypotheses b. Methodology c. Application of Health Informatics in data collection, data analysis and dissemination (including medical decision). d. Conclusions e. Writing f. Dissemination g. Ethical considerations	
Guest speaker(s)		

	Session 14- Final conclusions	Date
Topic	**Students presentations**	
Text	Research Design: Qualitative, Quantitative, and Mixed Methods Approaches, 3rd Edition	
Assignment	Prepare final exam	
Guest speaker(s)		

Session 15- Final Exam	Date

Request for Graduate Non-Curricular Changes

PLEASE USE THIS FORM FOR ALL NON-CURRICULAR CHANGE REQUESTS (changes in admission requirements or requirements for graduation, changes in existing or new policies/procedures, changes in program descriptions in catalog, general language changes in catalog).

SIGNATURES may not be required, depending on the nature of the request and from where it originates. Consult Graduate Council Chair.

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.
3. **The Graduate Council cannot process this application until it has received both the PDF copy and the signed hard copy.**

College: COLA Dept/Division: Communication Studies

Contact Person: Jill Underhill Phone: 304-696-3013

Rationale for Request:

The Communication Studies Department is requesting to eliminate the GRE as an admission requirement for our program.We have examined the predictive value of GRE scores versus the performance of students in our program over the past five years and have found that the exam score is not associated with students' overall performance. We have also investigated the admission requirements of similar graduate programs and found that many do not require this exam as a criteria for admission. Therefore, we would like to drop the GRE requirement for our program.

Signatures: if disapproved at any level, do not sign. Return to previous signer with recommendation attached.
NOTE: all requests may not require all signatures.

Department/Division Chair Cam Brammer Date 9/15/17

Registrar Sonya G 090101 Date 11/14/17

College Curriculum Committee Chair Cathl Date 10/18/17
(or Dean if no college curriculum committee)

Graduate Council Chair TChristofero Date 2-22-18

NOTE: please complete information required on the following pages before obtaining signatures above.

Request for Graduate Non-Curricular Changes – Page 2

1. **Current Catalog Description (if applicable)**: Please insert the catalog description from the current catalog for entries you would like to change.

Admission Requirements

Applicants should follow the admissions process described in the Graduate Catalog, or at the Graduate Admissions website at www.marshall.edu/graduate/admissions/how-to-apply-for-admission. Applicants also:

-must submit GRE scores. GRE scores on the verbal, quantitiatve, and writing sample sections will be evaluated in conjuction with other application material.

- must have a minimum of a 2.5 GPA on a 4.0 scale for all previously completed undergraduate university work. Students with less than a 3.0 GPA on a 4.0 scale for all previously completed undergraduate university work must attain a 900 score on the verbal and quantitative sections of the GRE (or the equivalent on the revised GRE) and a score of a 4 on the GRE writing sample.

2. **Edits to current description**: Attach or insert a PDF copy of the current catalog description prepared in MS WORD with strikethroughs to mark proposed deletions and use the highlight function to indicate proposed new text.

Admission Requirements

Applicants should follow the admissions process described in the Graduate Catalog, or at the Graduate Admissions website at www.marshall.edu/graduate/admissions/how-to-apply-for-admission. Applicants also:

~~• must submit GRE scores. GRE scores on the verbal, quantitative and writing sample sections will be evaluated in conjunction with other application materials.~~

• must have a minimum 2.5 GPA on a 4.0 scale for all previously completed undergraduate university work. ~~Students with less than a 3.0 GPA on a 4.0 scale for all previously completed undergraduate university work must attain a 900 score on the verbal and quantitative sections of the GRE (or the equivalent on the revised GRE) and a score of 4 on the GRE writing sample.~~

Request for Graduate Non-Curricular Changes – Page 5

Please insert below your proposed change information for the Graduate Council agenda.

Type of change request: Elimination of GRE requirement

Department: Communication Studies

Degree program: Master of Arts in Communication Studies

Effective date (fall/spring/summer, year): ~~Spring~~ Summer 2018

Request for Graduate Non-Curricular Changes

PLEASE USE THIS FORM FOR ALL NON-CURRICULAR CHANGE REQUESTS (changes in admission requirements or requirements for graduation, changes in existing or new policies/procedures, changes in program descriptions in catalog, general language changes in catalog).

SIGNATURES may not be required, depending on the nature of the request and from where it originates. Consult Graduate Council Chair.

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.
3. **The Graduate Council cannot process this application until it has received both the PDF copy and the signed hard copy.**

College: COLA Dept/Division: English

Contact Person: Kristen Lillvis Phone: 3046966269

Rationale for Request:

Students have been submitting letters of recommendation that are not from professional/academic references and that do not speak to their academic abilities.

Signatures: if disapproved at any level, do not sign. Return to previous signer with recommendation attached.
NOTE: all requests may not require all signatures.

Department/Division Chair _____ Date 10/12/2017

Registrar _____ 230101 Date 10/14/17

College Curriculum Committee Chair _____ Date 11/17/17
(or Dean if no college curriculum committee)

Graduate Council Chair _____ Date 2-22-18

NOTE: please complete information required on the following pages before obtaining signatures above.

1. **Current Catalog Description (if applicable)**: Please insert the catalog description from the current catalog for entries you would like to change.

Admission Requirements

Applicants should follow the admissions process described in this catalog or at the Graduate Admissions website at www.marshall.edu/graduate/admissions/how-to-apply-for-admission. All admission materials must be sent to the Graduate Admissions Office.

In addition, to be admitted to the English department, an applicant must have:

- an undergraduate Grade Point Average (GPA) of 3.0 or higher on a 4.0 scale for all previously completed undergraduate university work (otherwise strong candidates may be fully admitted with a 2.75 GPA);
- a letter of interest/ personal statement identifying the applicant's reasons for pursuing an M.A. and how the degree will contribute to the applicant's broader plans (1-2 pages);
- a writing sample of 8-12 pages (scholarly essay, creative writing, or language study), prefaced by a brief explanation of why this work has been selected;
- at least three letters of recommendation, preferably from college instructors.

International students and applicants who have earned a degree from a non-English institution must provide proof of English proficiency as follows: minimum of 80 on TOEFL IBT (or 550 paper based); IELTS 6.5.

2. **Edits to current description**: Attach or insert a PDF copy of the current catalog description prepared in MS WORD with strikethroughs to mark proposed deletions and use the highlight function to indicate proposed new text.

Please see attached.

3. **New Catalog Description**: Provide a "clean" copy of your proposed description without strikethroughs or highlighting. This should be what you are proposing for the new description.

Applicants should follow the admissions process described in this catalog or at the Graduate Admissions website at www.marshall.edu/graduate/admissions/how-to-apply-for-admission. All admission materials must be sent to the Graduate Admissions Office.

In addition, to be admitted to the English department, an applicant must have:

• an undergraduate Grade Point Average (GPA) of 3.0 or higher on a 4.0 scale for all previously completed undergraduate university work (otherwise strong candidates may be fully admitted with a 2.75 GPA);

• a letter of interest/ personal statement identifying the applicant's reasons for pursuing an M.A. and how the degree will contribute to the applicant's broader plans (1-2 pages);

• a writing sample of 8-12 pages (scholarly essay, creative writing, or language study), prefaced by a brief explanation of why this work has been selected;

• at least three professional letters of recommendation regarding the applicant's academic ability, at least two of which must be from college instructors. Applicants who are not able to obtain letters from college instructors may submit letters from other professional sources with a brief note of explanation.

International students and applicants who have earned a degree from a non-English institution must provide proof of English proficiency as follows: minimum of 80 on TOEFL IBT (or 550 paper based); IELTS 6.5.

Request for Graduate Non-Curricular Changes – Page 5

Please insert below your proposed change information for the Graduate Council agenda.

Type of change request: Non-curricular change

Department: English

Degree program: English MA

Effective date (fall/spring/summer, year): ~~Spring~~ Summer 2018

2. **Edits to current description**

Applicants should follow the admissions process described in this catalog or at the Graduate Admissions website at www.marshall.edu/graduate/admissions/how-to-apply-for-admission. All admission materials must be sent to the Graduate Admissions Office.

In addition, to be admitted to the English department, an applicant must have:

• an undergraduate Grade Point Average (GPA) of 3.0 or higher on a 4.0 scale for all previously completed undergraduate university work (otherwise strong candidates may be fully admitted with a 2.75 GPA);

• a letter of interest/ personal statement identifying the applicant's reasons for pursuing an M.A. and how the degree will contribute to the applicant's broader plans (1-2 pages);

• a writing sample of 8-12 pages (scholarly essay, creative writing, or language study), prefaced by a brief explanation of why this work has been selected;

• at least three professional letters of recommendation regarding the applicant's academic ability, at least two of which must be from college instructors. Applicants who are not able to obtain letters from college instructors may submit letters from other professional sources with a brief note of explanation.

International students and applicants who have earned a degree from a non-English institution must provide proof of English proficiency as follows: minimum of 80 on TOEFL IBT (or 550 paper based); IELTS

Chair: Tracy Christofero | **GC#6: Course Addition**

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: COLA | Dept/Division: Geography | Alpha Designator/Number: GEO 523 | (•) Graded ( ) CR/NC

Contact Person: Hilton A. Cordoba | Phone: (786) 263-1415

NEW COURSE DATA:

New Course Title: Cartography & GIS

Alpha Designator/Number: G E O 5 2 3

Title Abbreviation: C a r t o g r a p h y & G I S

(Limit of 25 characters and spaces)

Course Catalog Description: (Limit of 30 words)
An introduction to cartography as the cornerstone of geographic information systems/science. Students will learn GIS-based map making, interpretation, and design. The course explores cartographic techniques to represent and visualize data.

Co-requisite(s): None | First Term to be Offered: Fall 2018

Prerequisite(s): None | Credit Hours: 3

Course(s) being deleted in place of this addition (*must submit course deletion form*):

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

Dept. Chair/Division Head JM Lacy mcl	Date 11/13/17
Registrar Sonja G 450701	Date 11/14/17
College Curriculum Chair RBF	Date 11/14/17
Graduate Council Chair Christofero	Date

Request for Graduate Course Addition - Page 2

College: COLA | Department/Division: Geography | Alpha Designator/Number: GEO 523

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.

Jonathan Kozar, James Leonard, Anita Walz, Kevin Law, Hilton Cordoba.

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.

Not applicable

3. REQUIRED COURSE: If this course will be required by another deparment(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)

-Students will learn to select appropriate map projections and coordinate systems for cartographic productions at various scales
-Students will know how data is represented in a GIS.
-Students will employ cartographic theory to select visual representations and symbols that fit the logic of the data being mapped.
-Students will learn to apply the principles of cartographic generalization
-Students will design a layout using visual hierarchy, balance, and figure-ground of text and graphics to quickly communicate the subject and purpose of the map.
-Students will learn to create maps using ArcMap.

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

See separte document.

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

1) Map Use: Reading, Analysis, Interpretation. 8th Edition. A. Jon Kimerling, Aileen R. Buckley,? Phillip C. Muehrcke,? Juliana O. Muehrcke. Esri Press. ISBN: 978-1589484429.
2) Getting to Know ArcGIS. (4th edition). Michael Law & Amy Collins. Esri Press. ISBN: 9781589483828

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

See separte document.

Request for Graduate Course Addition - Page 4

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

See separate document

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

-Student must submit five map critiques throughout the semester of cartographic products found on the web, magazines, and other mediums.
-Final cartographic product must be poster size and printed to be displayed for public viewing.
-Final cartographic product must include a minimum og two peer reviews and a personal reflection.

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

Bertin, J. (2011). Semiology of graphics: diagrams, networks, maps. Redlands, CA: ESRI Press.
Brewer, C. A. (2016). Designing better maps: a guide for GIS users. Redlands, CA: Esri Press.
Defense Mapping Agency (2006). Datums, ellipsoids, grids, and grid reference systems. DMA technical manual 8358.1. Washington D.C. http://earth-info.nga.mil/GandG/publications/tm8358.1/toc.html.
Illife, J.C. (2000). Datums and map projections for remote sensing, GIS, and surveying. Caithness, Scotland: Whittles Publishing.
Jones, Alexander. (2012). Ptolemy' s Geography: Mapmaking and the Scientific Enterprise. In Ancient Perspectives: Maps and Their Place in Mesopotamia, Egypt, Greece and Rome, edited by Richard J.A. Talbert, 109 - 128. Chicago: University of Chicago Press.
Kimerling, A.J. (2012). Map Use: Reading, Analysis, Interpretation. Esri Press.
Kitchin, R.M. (1994). Cognitive Maps: What they are and why study them? Journal of Environmental Psychology 14: 1-19.
Mather, M.M. (2010). Lining up data in GIS: A guide to map projections. Redlands, CA: Esri Press.
Monmonier, M. (1996). How to lie with maps. Chicago: University of Chicago Press.
Monmonier, M. and G.A. Schnell. (1988). Map appreciation. Englewood Cliffs, N.J.: Prentice Hall.
Quattrochi, D.A., and M.F. Goodchild. (1997). Scale in remote sensing and GIS. Boca Raton, FL: Lewis Publishers.
Robinson, A.H. and B. Bartz-Petchenik. (1976). The nature of maps: Essays toward understanding maps and mapping. Chicago: University of Chicago Press.
Robinson, A.H. (1995). Basic geodesy. In Elements of Cartography. 6th ed. New York: John Wiley $ Sons, Inc.
Slocum, T. A. (2014). Thematic cartography and geovisualization. Pearson.
Snyder, J.P. (1993). Flattening the earth: A thousand years of map projections. Chicago: University of Chicago Press.
Söderström, Ola. (2011). How Images Assemble the World. In New Geographies 4: Scales of the Earth, 113 - 120. Cambridge, MA: Harvard University Graduate School of Design.
Wood, Denis; John Fels. (1992).The Power of Maps. New York City: Guillford 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: Geography
Course Number and Title: GEO 523 Cartography & GIS
Catalog Description:This course is an introduction to cartography and is the cornerstone of Geographic Information Science. In this class you will learn basic map design, map interpretation and appreciation. We will explore the nature of spatial data, and learn what maps can and cannot represent. We will study maps as a data source for Geographic Information Systems, and as a graphic tool for scientific visualization.
Prerequisites: None
First Term Offered: Fall 2018
Credit Hours: 3

Geography Department
College of Liberal Arts
Marshall University

Course Information

Course Title: Cartography & GIS
Course #: GEO 523
Sect #: 201
CRN: 3362
Credit Hours: 3
Pre-requisites: None
Co-requisites: None
Term: Fall 2018

Meeting Information

Campus: Huntington
Classroom: HH 236
Days: Tuesday
Time: 4:00PM to 6:20PM

Instructor Information

Instructor: Hilton A. Córdoba, Ph.D.
Office: HH 210
Office Hours: T: 11:30AM – 12:30PM & 2:30PM – 4:00PM
R: 11:30AM – 12:30PM & 2:30PM – 4:30PM
And by appointment
E-mail: cordoba@marshall.edu
Phone: (304) 696-4627

University Policies	By enrolling in this course, you agree to the University Policies listed below. Please read the full text of each policy by going to www.marshall.edu/academic-affairs and clicking on "Marshall University Policies." Or, you can access the policies directly by going to www.marshall.edu/academic-affairs/policies/. Academic Dishonesty/Excused Absence Policy for Undergraduates/Computing Services Acceptable Use/Inclement Weather/Dead Week/Students with Disabilities/Academic Forgiveness/Academic Probation and Suspension/Academic Rights and Responsibilities of Students/Affirmative Action/Sexual Harassment

Course Policies

Attendance will be recorded and will be incorporated in your final grade. See weight details in the course evaluation criteria.

Late entries, make-ups, or retakes for assignments are not accepted. Make-ups for missed assignments are granted only under extreme circumstances, for which the student is required to document her/his reason.

Incomplete grades are granted only under extreme circumstances, for which the student is required to document his or her case. After documenting your case, I will only grant an incomplete grade if at the time you stopped attending class you had a passing score (i.e. 70% or better).

Academic Dishonesty will not be tolerated in this class. All assignments are to be completed individually, meaning you may not be assisted by another person regardless of whether that person is enrolled in the class or not. Plagiarism on written assignments, whether one phrase, sentence, paragraph, or the entire assignment, is a form of academic dishonesty and will not be tolerated. Students who plagiarize or receive any form of assistance while completing any assignments will receive a final course grade of F and referral to the Office of Academic Affairs, without exception. The Academic Dishonesty Report Form used to report any and all cases of plagiarism or other forms of academic dishonesty is posted on the course homepage. See the definitions and policies for academic honesty and dishonesty in the MU Undergraduate Catalog.

Disability Policy Marshall University is committed to making all programs, services, and activities fully accessible to students with disabilities. The purpose of the Office of Disability Services Program is to provide the educational and physical accessibility support necessary for students to achieve their academic goals and to promote as much independence as possible on the part of the students with disabilities. Services are available for all students with disabilities at the University, whether they are full or part time students. Students are required to provide documentation of the disability. The program staff will work with students to individualize the type and level of services provided. Marshall University requires that you request any academic accommodations you may want in the classroom and/or for course assignments, etc. The purpose of this page is to tell you how to make your requests. The following policies and procedures are intended as a guide for your convenience.

Course Description

This course is an introduction to cartography and is the cornerstone of Geographic Information Science. In this class you will learn basic map design, map interpretation and appreciation. We will explore the nature of spatial data, and learn what maps can and cannot represent. We will study maps as a data source for Geographic Information Systems, and as a graphic tool for scientific visualization.

Course Objectives:

Course student learning outcomes	How students will practice each outcome in this course	How student achievement of each outcome will be assessed in this course
Students will learn to select appropriate map projections and coordinate systems for cartographic productions at various scales	In class demonstrations and lab sessions. Lab activities will be performed using tangible maps and GIS software.	Lab exercises, quiz questions, and through final cartographic product.
Students will know how data is represented in a GIS.	In class demonstrations and lab sessions. Lab activities will be performed using tangible maps and GIS software.	Lab exercises, quiz questions, and through final cartographic product.
Students will employ cartographic theory to select visual representations and symbols that fit the logic of the data being mapped.	In class demonstrations and lab sessions. Lab activities will be performed using tangible maps and GIS software.	Lab exercises, quiz questions, and through final cartographic product.
Students will learn to apply the principles of cartographic generalization.	In class demonstrations and lab sessions. Lab activities will be performed using tangible maps and GIS software.	Lab exercises, quiz questions, and through final cartographic product.
Students will design a layout using visual hierarchy, balance, and figure-ground of text and graphics to quickly communicate the subject and purpose of the map.	In class demonstrations and lab sessions. Lab activities will be performed using tangible maps and GIS software.	Lab exercises, quiz questions, and through final cartographic product.
Students will learn to create maps using ArcMap.	In class demonstrations and lab sessions. Lab activities will be performed using tangible maps and GIS software.	Lab exercises, quiz questions, and through final cartographic product.

Materials:

Textbook (Suggested):

Map Use: Reading, Analysis, Interpretation. 8th Edition. A. Jon Kimerling, Aileen R. Buckley, Phillip C. Muehrcke, Juliana O. Muehrcke. Esri Press. ISBN: 978-1589484429.

Workbook (required):

Getting to Know ArcGIS. (4th edition). Michael Law & Amy Collins. Esri Press. ISBN: 9781589483828

Supplies (required):

- USGS 7.5 minutes Las Pulgas Canyon, CA topographic map
-A flash drive
- A ruler

Classroom Etiquette

1) In order to enhance and maintain a productive atmosphere for education, **personal communication devices such as cellular telephones are to be **_turned off_** in class sessions.**

2) Please arrive on time! If you happened to be late, please **enter the classroom quietly** and **minimize all noise** as you settle in your seat.

3) If you plan to leave class early, please **inform me** of your expected departure time, otherwise, you will be marked absent.

4) All in-class discussions will be conducted in a respectful manner.

Netiquette: When emailing me-

1) Show that you have manners and include a simple salutation ("hello" will suffice).

2) Provide your class information (i.e. I'm in your TR or MW at xx time).

3) When asking for something, please do so politely.

4) If I feel that your question can best be answered in person, I will ask you to come see me during office hours or to schedule a Skype meeting/phone call.

5) If the answer to your inquiry can be found in the syllabus, I will reply with "see syllabus".

6) If you email me anytime from Monday through Friday, expect a reply within 24 hours. Expect a longer return on weekends and holidays.

7) You will be expected to log into Blackboard every week to keep-up with announcements, assessment materials, and grades.

Course Evaluation Method

Assignment	Quantity	Value (points)	Total (points)
Quizzes	12	25	300
Labs	12	25	300
Map Critiques	5	15	75
Cartographic Production Project	1	200	200
Grand Total			**875**

Quizzes

There will be 12 quizzes and they will cover lecture material, assigned readings, and labs.

Labs

There will be 12 labs, and you will have one week to complete each. Do not expect to complete all of your lab work during the scheduled lab time. You will need to dedicate time outside of class to completing your labs.

Map Critiques

You will submit five map critiques throughout the semester of cartographic products found on the web. Magazines, and other mediums.

Cartographic Production Project

You will create a multivariate thematic map on a topic of your choice. The goal is to:

1) Apply the concepts and techniques learned in the semester
2) Have your peers critique your work, and in turn, revise your final map. Interpretation, evaluation and criticism are of critical importance and contribute to the discourse, understanding and appreciation of map design.
3) Create your first official map using state of the art ArcGIS software.

Specific guidelines about the project can be found on Blackboard

Grading Scale

You will accumulate points throughout the semester and the final grade/point distribution will be as follows:

A	875-788	100% to 90%
B	787-700	89% to 80%
C	699-613	79% to 70%
D	612-525	69% to 60%
F	524-0	59% to 0%

Tentative Schedule of Topics

Date	Topic	In-Class Activity	Due	Reading
23-Aug	Course overview			Syllabus
30-Aug	Maps, Cartography, and GIS	Lab 1		
6-Sep	Earth & Datums	Lab 2	Lab 1 Quiz 1 Map Critique 1	Ch. 1
13-Sep	Geographic Coordinates	Lab 3	Lab 2 Quiz 2	Ch. 1
20-Sep	Scale & Generalization	Lab 4	Lab 3 Quiz 3	Ch. 2
27-Sep	Projections	Lab 5	Lab 4 Quiz 4 Map Critique 2	Ch. 3
4-Oct	Grid Coordinate Systems	Lab 6	Lab 5 Quiz 5	Ch. 4
11-Oct	Relief Portrayal: Absolute Methods	Lab 7	Lab 6 Quiz 6	Ch. 9
18-Oct	Relief Portrayal: Relative Methods	Lab 8	Lab 7 Quiz 7 Map Critique 3	Ch. 9
25-Oct	Thematic Maps: Qualitative Data	Lab 9	Lab 8 Quiz 8	Ch. 7
1-Nov	Thematic Maps: Quantitative Data	Lab 10	Lab 9 Quiz 9	Ch. 8
8-Nov	Map Design: Color & Text	Lab 11	Lab 10 Quiz 10 Map Critique 4	Ch. 6
15-Nov	Map Design: Planning & Layout	Lab 12	Lab 11 Quiz 11	Ch. 6

22-Nov	No class: Thanskgiving Break			
29-Nov	Cartographic Production Project	Work on Project	Lab 12 Quiz 12	
6-Dec	Cartographic Production Project	Work on Project	Map Critique 5	
13-Dec	**Final Map**			

Cartographic Production Project

What is a multivariate thematic map?

A multivariate thematic map involves using multiple variables to represent one or more attributes on a map. You will create a multivariate thematic map on a historical topic of your choice. You will acquire GIS data and create a map that visually communicates two or more variables related to the topic you selected.

Objectives

1) Apply the concepts and techniques learned in the semester.
2) Learn how and where to acquire GIS data.
3) Design a layout using visual hierarchy, balance, and figure-ground of text and graphics to quickly communicate the subject and purpose of the map.
4) Have your peers critique your work, and in turn, revise your final map. Interpretation, evaluation and criticism are of critical importance and contributes to the discourse, understanding and appreciation of map design.
5) Create your first official map using state of the art ArcGIS software.

Guidelines

1) To be multivariate, your map(s) must show two or more data variables.

   For the context of this project, your data variables (in order to be considered as variables) should show at least one attribute that varies within the map. For example, I will not consider roads, streams or point locations of cities or buildings to be variables, unless they show varying attributes that are relevant to the thematic topic of the map. If the city symbols were sized according to population and relevant to the purpose of the map, they would qualify as a data variable. Otherwise I will just consider them a data layer or features on the map that are for reference. A map would also qualify as multivariate if you showed just one data layer with more than one varying attribute. For example, a map of census tracts that shows two attributes would be multivariate, e.g. income and cancer mortality. Depending on how you symbolize the census tracts, this would not only be a multivariate map, but a map using multivariate symbols.

2) The topic you choose is completely up to you. It is likely that the biggest limitation to picking your topic will be availability of data. After picking a broad topic, I recommend that you look into what data is available before you pinpoint exactly what you will map.

3) You can certainly incorporate GIS analysis into your project, but remember this is a cartographic project, not a spatial analysis project. I will grade the map design and ability of the map to communicate your specific topic, and what you did to get the data.

Project Checklist

Below are the milestones required to complete the cartographic production project. See course syllabus in Moodle for exact due dates. See the pages below for details on deliverables.

Step	Deliverables	Directions
1	Project proposal (40%)	Write a proposal for the cartographic production project. See below for directions.
2	Complete draft of map for peer review (20%)	Complete a draft of your map. See below for submission directions.
3	Perform two peer reviews of draft projects (10%)	You will perform this step in class.
4	Submit final revised map (30%)	Make improvements to your map project based on feedback. See below for submission directions.

Project Proposal

In at least 500 words (although it can be longer), craft a proposal that discusses:

- the map topic (and the reason you selected it)
- the intended audience
- the data variables you envision mapping
- data sources (and if data has been acquired)
- the type of map representation you envision using (e.g. multivariate point symbols, choropleth, dot density, etc)

Assume that the proposal will be read by non-experts. In other words, include background and context information that will allow me to understand your idea. If you were inspired by other sources, you can include a copy or a link in your document. As I review your proposal, I will consider the following questions:

- Can I visualize the map that is being proposed?
- Does the map's purpose seem logical?
- Is the map's purpose clear?
- What data will be used to communicate the map's purpose to map readers?
- Why is the chosen data relevant/important?
- How will the map communicate the data?

Make sure your proposal includes the link(s) to the site(s) where you will be acquiring the data to be used in the project. This will validate the feasibility of your project so you avoid getting stuck at the stage of acquiring data when you should be well into designing your map. You may want to open and test the data in ArcMap to determine the quality, suitability, and reliability of the source.

*** Upload proposal to Moodle***

Map Draft

You will submit a solid draft of the design, symbolization, and layout of your map, including basic map elements (title, legend, text, scale, north arrow, etc...).

Please submit a pdf file of your map. Here are the steps to save your map as a PDF:

- File > Export Map...
- Navigate to appropriate folder (wherever you have your data-"NOT THE LOCAL DRIVE").
- Using your name, name it "laname_firstname_Draft"
- Save as type: PDF
- In the expanded options menu, on the General tab, set the Resolution to 100 dpi. (72 dpi is suggested for online images, and 300 dpi for final production. This will make the images a bit larger when viewed at full size, and one can look at details when zoomed in).
- Click the Save button

*** Upload file to Moodle***

Peer Reviews

Review the draft of two peers by providing in-depth comments of your "CONSTRUCTIVE" critique of their work. To write your reviews, please address the following:

- the reading of the map as a whole; discuss what is unclear or could be better communicated
- the layout, visual hierarchy, figure-ground and/or the graphic design of the map
- the representation and/or symbolization, e.g. do the visual variables fit with the logic of the data?
- the labeling and typography, e.g. are text sizes consistent and logical for page and visual hierarchy?
- other comments, thoughts, ideas, suggestions that might not be touched on in the above bullets

Type your reviews in a word document and upload the file to Moodle

Final Map

Congratulations! You have reached the final set of deliverables for this project. Once your map project has been thoroughly reviewed by at least two peers, and the instructor, revise or rework your map accordingly. You may not take all ideas or recommendations for changes from reviewers, for example, if you do not have the data, or do not agree with the recommendations.

Please submit the final version of your map. Note that the final product must be "POSTER SIZE". You can use Kinkos/FedEx or the printing office of the university to print the poster size map.

In addition to completing the map, please write a review or reflection of your own map. In this document, discuss the decisions behind making your map, what you changed from the draft as a result of the peer reviews, or if you did not incorporate recommendations, the reasons why. Also discuss strengths and weaknesses of the map, and how the project may be improved, e.g. with more time or better data.

Type your reflection in a word document and upload file to Moodle

Consultation/Meetings

I expect you to consult with me constantly throughout the semester as you work on the project. If desired by the class, we can meet once a week, every other week, or as needed outside regular class time. We can use these meetings as check points to guard rail the progression of projects. These meetings can also serve as brainstorming and/or troubleshooting sessions as you may encounter problems or questions. Finally, if you would like some examples of projects or would like to meet with me in private to discuss any concerns, please see me during office hours.

Cartography & GIS
Lab 6- Working with Relief Portrayal Techniques

Part I. Acquiring digital elevation/terrain models (DEM) from the USGS

As discussed in the lecture, there is a whole range of DEM datasets available. Private and government organizations are in charge of acquiring and providing accessibility to these data. In this lab, you will be working with the USGS data portal "The National Map Download Client". Here is the link to the application: https://viewer.nationalmap.gov/viewer/
Below, are the links to short video tutorials created by the USGS, where they show you how to use the app and download data.

Watch this video first:
https://www.youtube.com/watch?v=aNWmd_UCwJg&index=30&list=PLIxlFowAfHBAzSIeg7wszuUVsLzVkspQN

Then, watch this video:
https://www.youtube.com/watch?v=OCnCd94IucE&index=28&list=PLIxlFowAfHBAzSIeg7wszuUVsLzVkspQN

After watching these short video clips, you should know how to use the USGS application to download DEM datasets. You will need to select an area that is of your interest, but it must meet the following criteria:

1) Make sure the area you select has contrast in elevations (i.e. think the mountainous areas of the U.S.).

2) Make sure that for your area of interest, you can find a "1/3 arc-second DEM".

Once you find an area of interest that meets the previous criteria, download it and decompress the zipped folder. Windows downloads all files by default to the "downloads" folder of your computer. Navigate there and find the zipped folder containing your data. Once you find it, right click on it and select "Extract All…". Then, navigate to the folder where you would like to save the files. Make sure you have read and write access to this folder. After extracting your data files, you are ready to start manipulating your data. If you have any questions, please do not hesitate to ask your instructor for help.

Part II. Applying the Hill Shading technique to a DEM

After having acquired the DEM of your area of interest, you are now ready to apply the hill shading technique of relief portrayal. Follow the steps outlined below:

1) Open a new map document and add the DEM that you acquired. Note that this is going to be a raster data file (not a shapefile), and ArcMap might give you a warning message stating that pyramids have not been created. Say "yes" to this message and wait for the process to finish (it might take a few minutes depending on the processor and memory of your computer).

2) On the main toolbar, go to Customize>Extensions, and make sure that "Spatial Analyst" is checked on.

3) Open Arc Toolbox and expand "Spatial Analyst Tools". Then, expand the "Surface" tool-set, and double click on "Hillshade".

4) Set your DEM as the "Input raster", and then click on the folder next to "output raster" so you can tell the software where to save the new file that will be created. Note: choose a folder where you have read and write access, and select a name that is not longer than 13 characters.

5) Click in the "Azimuth (optional)" window and copy what it says in the space below. Do not alter the default value.

6) Click in the "Altitude (optional)" window and copy what it says in the space below. Do not alter the default value.

7) After writing down the information, execute the command and give it a few minutes. These are large datasets and unfortunately we do not have supercomputers. ArcMap will add the newly created hill shade map to your document.

8) Take a Screenshot and add it to this document.

9) Repeat steps 3 through 8, with the following exceptions. In step 5, change the Azimuth value to 135. Also, you do not need to write down the descriptions of the parameters.

10) After adding the screenshot, explain the difference between both representations of the same DEM.

Part III. Draping your hill shade map with a Hypsometric Tint

1) At this point you should have three raster files in your table of contents. To allow ArcMap to draw the information quicker in your computer, "turn off" the second hill shade map you created (i.e. the one with the azimuth value of 135).

2) Open Arc Toolbox and expand "Spatial Analyst Tools". Then, expand the "Math" tool-set and double click on "Times". Here we are going to convert the units of the DEM (which are in meters) to feet. We are doing this because the U.S.A uses the imperial system; otherwise, the elevation values can be interpreted as they are. Note however, that if you were creating a map for a non-U.S.A. audience, you will probably want to keep meters. Again, "always know your audience".

3) Select your original DEM (NOT your hill shade map) as the input for "Input raster or constant value 1".

4) In the "Input raster or constant value 2" type: 3.281. This is the conversion value (i.e. there are 3.281 feet in a meter). All we are doing in this step is multiplying the meter values by 3.821, so we can comfortably work with feet.

5) Click on the folder next to the "Output raster" window to indicate where you want to save the new file that will be created. Again, make sure you select a folder where you have read and write access, and select a name that is not longer than 13 characters.

6) Click "OK" to execute the command, and wait a few minutes for ArcMap to run the process and add the new layer.

7) In the table of contents, double click the new layer that was added to launch properties window. Once open, click the "Display" tab and set the transparency to 15% (you might have to modify this parameter later in the lab, depending on the area/terrain you selected.

8) With the properties window still open, click on the "Symbology" tab. Then, under "Show", click "Classified". In the "Classification" window click on "Classify…". This will provide a histogram of the elevation values and general statistics. Provide the following information:

A) What is your lowest point?
B) What is your highest point?
C) What is the difference in elevation between the highest and lowest points?

Depending on the range of your elevation values, you will have to modify the number of "Classes". For instance, if your elevation values range between 4,500 feet and 12,500 feet, you will want to have 9 classes or break values. Why 9? Well, one for the maximum value, and the other eight are going to be for the intermediate values, which will be at an interval of 1000 feet So in this example, the break values are going to be at: 5000, 6000, 7000, 8000, 9000, 10000, 11000, 12,000, and 12500.

9) Under "Classes", change the value to a number that suits your terrain. You can ask you professor for help to determine this number.

10) Under "Break Values", change the break values. You do this by clicking on each value, and after the value is highlighted in blue, type in the value you want (this will replace the old value). You should do this for all your values, except for the maximum. Feel free to ask your professor for help. Click "OK" when you are done.

11) Back in the properties window, click on the drop-down arrow for "Color Ramp", and select a ramp that suits your needs. Keep in mind what we discussed in the lecture. You want to select a color ramp that reflects the current land-use and/or terrain. You might want to go to Google maps and turn on the satellite coverage to see what is the ground cover like? Typically, the color ramp used is one that ranges from green (for the lowest elevations), to white (for the highest elevations). Different shades of green and brown are used for intermediate values. After selecting an appropriate color ramp, click "OK" to apply your modifications. Give ArcMap a few minutes to process the changes.

12) You should end-up with a hypsometric tint where the color changes every 1,000 feet. This layer will be draped over your hill shade map, making it easier to visualize the changes in elevation. Take a screenshot and add it to this document.

Part IV. Adding Contours to your hypsometric tint

1) At this point, you should have your hypsometric tint, hill shade map, and original DEM turned on in your table of contents.

2) Open Arc Toolbox and expand "Spatial Analyst Tools". Then, expand the "Surface" tool-set, and double click on "Contour".

3) In the "Contour" dialog box, set the layer that you applied the hypsometric tint to as your "Input raster". Remember that this is the last raster file that you created (i.e. the one that has the elevation values in feet).

4) Click on the folder next to "Output polyline features" to indicate where you want to save the new file that will be created. Again, make sure you select a folder where you have read and write access, and select a name that is not longer than 13 characters.

5) In the "Contour interval" window, enter a contour interval value that works well with your elevation values. Again, this will vary according to the terrain you selected. However, interval values of 200, 250, or 300 feet are common for areas with elevation changes more than 5,000 feet.

6) Leave the rest of the parameters as default and click "OK" to execute the command. Give ArcMap a few minutes to create and draw the contour lines. They will be added to your map document once the process is completed.

7) In the table of contents, double click the newly added layer (i.e. the contour intervals). This will launch the properties window. Click on the "Symbology" tab, and then under "Show", click "Categories". Under "Value Field", click the drop-down arrow and select "Contour". Then, click "Add Values…". This will open the "Add Values" window.

8) In the "Add Values" window, click the "Complete list" tab. This will add all the possible contours available.

9) While holding down the "control key", select all the 1000^{th} values (i.e. 2000, 3000, 4000, etc.). This will allow you to select a specific set of values. Click "OK" to add the values.

10) The values have been added properties window. While holding down the "shift key", click the first value and the last value. This will select all the values. Then, once all the values have been highlighted in blue, right click inside the blue highlighted area, and select "group values". This basically assigns the same symbology to all the values you added in the previous step.

11) Double click the line symbol of the values you just grouped. This will launch the symbol selector window. There, scroll down slowly until you find the pre-designed symbol for "Contour Topographic Index". Remember that index contours are indicated with a heavier line weight. Click "Ok" to apply the design.

12) Double click the line symbol of "<all other values>". Again, this will launch the symbol selector window. There, scroll down slowly until you find the pre-designed symbol for "Contour Topographic Intermediate". Remember that intermediate contours are indicated with a lighter line weight. Click "Ok" to apply the design.

13) Click "OK" in the properties window, and give ArcMap a few minutes to process the changes.

14) Depending on the contour interval you selected, your map might appear cluttered or just fine. If you feel is too cluttered, go back and change the contour interval, and select one that fits your terrain.

15) Once you are happy with your map, take a screenshot and add it to this document.

*****Please upload your completed assignment to Moodle by the stipulated deadline*****

Chair: Tracy Christofero | **GC#7: Course Change**

Request for Graduate Course Change

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: Liberal Arts Dept/Division: History Current Alpha Designator/Number: HST 534

Contact Person: Daniel Holbrook Phone: 3046962417

CURRENT COURSE DATA:

Course Title: The Am Experience in Vietname

Alpha Designator/Number: H S T 5 3 4

Title Abbreviation: A m E x p e r i e n c e i n V i e t n a m

1. Complete this **five** page form in its entirety and route through the departments/committees below for changes to a course involving: course title, alpha designator, course number, course content, credit hours, or catalog description.
2. If this change will affect other departments that require this course, please send a memo to the affected department and include it with this packet, as well as the response received from the affected department.
3. If the changes made to this course will make the course similar in title or content to another department's courses, please send a memo to the affected department and include it with this packet as well as the response received from the affected department.
4. List courses, if any, that will be deleted because of this change (*must submit course deletion form).*
5. If the faculty requirements and/or equipment need to be changed upon approval of this proposal, attach a written estimate of additional needs.

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

Dept. Chair/Division Head	Date 12/18/17
Registrar 540101	Date 12/18/17
College Curriculum Chair	Date 12/18/17
Graduate Council Chair	Date 2-22-18

Rec'd in COLA
Date: 12/18/17

Request for Graduate Course Change - Page 2

College: Liberal Arts | Department/Division: History | Alpha Designator/Number: HST 534

Provide complete information regarding the course change for each topic listed below.

Change in CATALOG TITLE: ☒ YES ☐ NO

From: Am Experience in Vietnam (limited to 30 characters and spaces)

To: The Vietnam War

If Yes, Rationale: The change in course title from "The American Experience in Vietnam" to "The Vietnam War" more accurately captures the content of the course, which includes not only the U.S. experience in that war, but those of the other relevant parties, i.e. the Vietnamese, Cambodians, French, etc.

Change in COURSE ALPHA DESIGNATOR:

From: ____ To: ____ ☐ YES ☒ NO

If Yes, Rationale:

Change in COURSE NUMBER: ☐ YES ☒ NO

From: ____ To: ____

If Yes, Rationale:

Change in COURSE GRADING

From ☐ Grade To ☐ Credit/No Credit

Rationale:

Change in CATALOG DESCRIPTION: ☐ YES ☒ NO IF YES, fill in below:

From:

To:

If Yes Rationale:

Request for Graduate Course Change - Page 3

Change in COURSE CREDIT HOURS: ☐ YES ☒ NO If YES, fill in below:

NOTE: If credit hours increase/decrease, please provide documentation that specifies the adjusted work requirements.

From

To

Change in COURSE CONTENT: ☐ YES ☒ NO

From

To

Rationale

Request for Graduate Course Change-Page 4

College: Liberal Arts

Department: History

Course Number/Title HST 534

1. REQUIRED COURSE: If this course is required by another department(s), identify it/them by name and attach the written notification you sent to them announcing to them the proposed change and any response received. Enter NOT APPLICABLE if not applicable.

NOT APPLICABLE

2. COURSE DELETION: List any courses that will be deleted because of this change. A *Course Deletion* form is also required. Enter NOT APPLICABLE if not applicable.

NOT APPLICABLE

3. ADDITIONAL RESOURCE REQUIREMENTS: If your department requires additional faculty, equipment, or specialized materials as a result of this change, attach an estimate of the time and cost etc. 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

Request for Graduate Course Change - Page 5

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

COURSE DESCRIPTION CHANGE
Department:
Course Number and Title:
Rationale:
Course Description (old)
Course Description: (new)
Catalog Description:

COURSE NUMBER CHANGE
Department:
Current Course Number/Title:
New Course Number:
Rationale:
Catalog Description:
Credit hours:

COURSE TITLE CHANGE
Department:
Current Course Number/Title:
New Course Title:
Rationale:
Catalog Description:

COURSE TITLE CHANGE
Department: History
Current Course Number/Title: New Course Title: 534 The Am Experience in Vietnam The Vietnam War
Rationale:The change in course title from "The American Experience in Vietnam" to "The Vietnam War" more accurately captures the content of the course, which includes not only the U.S. experience in that war, but those of the other relevant parties, i.e. the Vietnamese, Cambodians, French, etc. It also makes the course's appearance in the schedule clearer; students should therefore be more able to judge the course's topic and content.
Catalog Description: A study of the origin and escalation of American involvement in Vietnam, the domestic impact of the war within the United States and the collapse of the South Vietnamese government.

Chair: Tracy Christofero | **GC#7: Course Change**

Request for Graduate Course Change

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: Liberal Arts Dept/Division: Psychology Current Alpha Designator/Number: 620

Contact Person: Dr. Marianna Linz Phone: 696-2774

CURRENT COURSE DATA:

Course Title: Assessment of Adults Practicum

Alpha Designator/Number: PSY 620

Title Abbreviation: ASSESS ADULT PRAC

1. Complete this **five** page form in its entirety and route through the departments/committees below for changes to a course involving: course title, alpha designator, course number, course content, credit hours, or catalog description.
2. If this change will affect other departments that require this course, please send a memo to the affected department and include it with this packet, as well as the response received from the affected department.
3. If the changes made to this course will make the course similar in title or content to another department's courses, please send a memo to the affected department and include it with this packet as well as the response received from the affected department.
4. List courses, if any, that will be deleted because of this change (*must submit course deletion form).*
5. If the faculty requirements and/or equipment need to be changed upon approval of this proposal, attach a written estimate of additional needs.

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

Dept. Chair/Division Head [signature]	Date 11-8-17
Registrar [signature] 420101	Date 11/9/17
College Curriculum Chair	Date
Graduate Council Chair [signature]	Date 2-22-18

Request for Graduate Course Change - Page 2

College: Liberal Arts | Department/Division: Psychology | Alpha Designator/Number: 620

Provide complete information regarding the course change for each topic listed below.

Change in CATALOG TITLE: ☐ YES ☒ NO

From [ ] (limited to 30 characters and spaces)

To [ ]

If Yes, Rationale [ ]

Change in COURSE ALPHA DESIGNATOR:

From: [ ] To [ ] ☐ YES ☒ NO

If Yes, Rationale [ ]

Change in COURSE NUMBER: ☐ YES ☒ NO

From: [ ] To: [ ]

If Yes, Rationale [ ]

Change in COURSE GRADING

From ☐ Grade To ☐ Credit/No Credit

Rationale [ ]

Change in CATALOG DESCRIPTION: ☐ YES ☒ NO IF YES, fill in below:

From [ ]

To [ ]

If Yes Rationale [ ]

Request for Graduate Course Change - Page 3

Change in COURSE CREDIT HOURS: ☒ YES ☐ NO If YES, fill in below:

NOTE: If credit hours increase/decrease, please provide documentation that specifies the adjusted work requirements.

From: 1

To: 1 to 3

Change in COURSE CONTENT: ☐ YES ☒ NO

From:

To:

Rationale:

Request for Graduate Course Change-Page 4

College: Liberal Arts

Department: Psychology

Course Number/Title PSY 620-Assessment of Adults Practicum

1. REQUIRED COURSE: If this course is required by another department(s), identify it/them by name and attach the written notification you sent to them announcing to them the proposed change and any response received. Enter NOT APPLICABLE if not applicable.

NOT APPLICABLE

2. COURSE DELETION: List any courses that will be deleted because of this change. A *Course Deletion* form is also required. Enter NOT APPLICABLE if not applicable.

NOT APPLICABLE

3. ADDITIONAL RESOURCE REQUIREMENTS: If your department requires additional faculty, equipment, or specialized materials as a result of this change, attach an estimate of the time and cost etc. 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

Request for Graduate Course Change - Page 5

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

COURSE DESCRIPTION CHANGE	COURSE NUMBER CHANGE	COURSE TITLE CHANGE
Department:	Department:	Department:
Course Number and Title:	Current Course Number/Title:	Current Course Number/Title:
Rationale:	New Course Number:	New Course Title:
Course Description (old)	Rationale:	Rationale:
Course Description: (new)	Catalog Description:	Catalog Description:
Catalog Description:	Credit hours:	

COURSE DESCRIPTION CHANGE
Department: Psychology
Course Number and Title: PSY 620, Assessment of Adults Practicum
Rationale: Psychology 620 meets three times a week for 50 minutes. This course has developed so that just being a one credit hour course is no longer applicable.
Students can spend up to 45 hours, outside of class, doing testing, grading and report writing.
We request that the course be set at a variable number of hours because this practicum can be attached to more than one psychology lecture course, and with differing needs based on different lectures, having the practicum at variable hours makes the most sense.
Course Description (old): 1 credit hour
Course Description (new): 1 to 3 credit hours
Catalog Description: Students will be expected to administer, score, interpret and write reports for a battery of tests used with adults. Must be taken concurrently with PSY 610.