



## Graduate Council

### MEMORANDUM

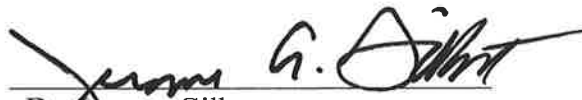
To: Dr. Jerome Gilbert – President  
From: Dr. Lori Howard – Chair, Graduate Council *LH*  
Date: February 15, 2019  
Subject: **Approval of Graduate Council Minutes: January 25, 2019**

Attached are the minutes of the recent Graduate Council meeting for your review. Approval of these minutes will also serve as approval of curricular motions, graduate faculty status, etc.

Please advise if you have any comments/concerns/questions.

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Minutes approved.

  
Dr. Jerome Gilbert  
President, Marshall University

3-19-19  
Date

Note to Cora Pyles, Executive Assistant to the President: Please return the signed original to Dr. Lori Howard with .pdf copies e-mailed to:

Dr. Lori Howard, Chair, Graduate Council, [howardl@marshall.edu](mailto:howardl@marshall.edu)  
Dr. Conrae Lucas-Adkins, Secretary, Graduate Council, [lucas26@marshall.edu](mailto:lucas26@marshall.edu)  
Dr. David Pittenger, Dean, Graduate College, [pittengerd@marshall.edu](mailto:pittengerd@marshall.edu)  
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Mr. Adam Russell, Office of Academic Affairs, [russell58@marshall.edu](mailto:russell58@marshall.edu)

## MU Graduate Council Meeting – January 25, 2019

### John Spotts Room, Huntington Campus

**Members Present:** Allen, Blough, Georgel, Hanna, Heaton, Howard, Lanham, Lawrence, Lucas-Adkins, Thompson, Vauth, Wait

**Members Absent:** Beard, Davis, McGhee, Sollars

**Ex-Officio Members Present:** Pittenger

**Ex-Officio Members Absent:** Maher, Taylor

**Guests:** Bryce, Frame, McInerney, Yoo

#### Agenda

Howard	Welcome, Introductions, Announcements
Lucas-Adkins	Approval of previous meeting Minutes (Attachment 1)
Howard	Graduate faculty status candidates (Attachment 2)
Lawrence	Planning Committee (Attachment 3)
Heaton	Curriculum Committee (Attachment 4)
Lanham	Program Review Committee (Attachment 5)
Blough	Credentialing Committee
Howard/Pittenger	Other

**Please reserve these meeting dates:**

- February 22, 2019 – South Charleston Thomas Boardroom
- March 22, 2019 – Huntington John Spotts Room
- April 26, 2019 – South Charleston Thomas Boardroom

Reminder: All electronic and hard copy requests for Graduate Council must be received no later than the first day of the month in which Council meets. Requests for the February 22 meeting are due on or before February 1<sup>st</sup>.

**Attachments:**

1. Minutes of the past meeting (Attachment 1)
2. Graduate Faculty Membership Requests (Attachment 2)
3. Planning Committee Requests (Attachment 3)
4. Curriculum Committee Requests (Attachment 4)
5. Program Review Committee Requests (Attachment 5)

**The meeting was called to order at 1:04PM.**



## CREDENTIALING COMMITTEE

The committee did not meet since last GC meeting. Next Credential Committee meeting scheduled for February.

## OTHER BUSINESS DISCUSSED

1. Dr. Howard and Dr. Lawrence discussed a meeting held earlier today about revising the forms for departments to submit when seeking new program approval. It needs to be clear to departments that having approval for an intent to plan is not equivalent to being granted permission for the program to move forward. There needs to be assurance of program feasibility before granting permission.
2. Dean Pittenger asked for Graduate Council's approval to approach Provost about establishing a work group including members of Faculty Senate and Graduate Council. The purpose of the work group would be to develop guidance for departments about what is needed when seeking new program approval.
3. Dean Pittenger and Dr. Howard discussed upcoming Graduate Recruitment Days:
  - Wed. March 21<sup>st</sup> 10am-2pm (Don Morris Room); pizza will be provided; tables with representatives (faculty & students) from each graduate program; "hands-on displays and work samples"
  - After- Hours event at Huntington's Kitchen (to be announced); wine & cheese for working adults to have opportunity to discuss graduate programs with representatives
4. Graduate Council Student Representative from Fall 2018 has graduated, so there was discussion about a replacement. One idea is to have the student representative be a GA who is elected by current GAs. This student would take on a more formal role at meetings by reporting to Graduate Council on behalf of GAs.
  - Dean Pittenger drafted a description of the proposed change of role for the Graduate Student Representative. Motion made to accept the **nonbinding resolution** as read by Dean Pittenger. **Motion passed.**
5. Dean Pittenger discussed change of dates to submit theses and dissertations. Sabrina Thomas in library is offering guidance to students in moving beyond an internet search for references.

6. Dr. Heaton discussed idea of a form that clearly reflects what the committee has agreed on for the Accelerated Masters.

**The meeting was adjourned at 2:08 PM.**

## Attachment 1

### MU Graduate Council Meeting Minutes – November 30, 2018 Thomas Boardroom, South Charleston

**Members Present:** Allen, Beard, Blough, Davis, Hanna, Heaton, Howard, Lanham, Lucas-Adkins, Sollars, Thompson, Vauth, Wait

**Members Absent:** Georgel, Lawrence, McGhee,

**Ex-Officio Members Present:** Pittenger

**Ex-Officio Members Absent:** Maher, Taylor

**Guests:** Sollosy

#### Revised Agenda

Howard	Welcome, Introductions, Announcements
Lucas-Adkins	Approval of previous meeting Minutes (Attachment 1)
Howard	Graduate faculty status candidates (Attachment 2)
Lawrence	Planning Committee (Attachment 3)
Heaton	Curriculum Committee (Attachment 4)
Lanham	Program Review Committee/Overview of Process
Blough	Credentialing Committee
Howard/Pittenger	Other

#### Please reserve these meeting dates:

- November 30, 2018 – South Charleston Thomas Boardroom
- January 25, 2019 – Huntington John Spotts Room
- February 22, 2019 – South Charleston Thomas Boardroom
- March 22, 2019 – Huntington John Spotts Room
- April 26, 2019 – South Charleston Thomas Boardroom

Reminder: All electronic and hard copy requests for Graduate Council must be received no later than the first day of the month in which Council meets. Requests for the January 25<sup>th</sup> meeting are due on or before January 1<sup>st</sup>.

#### Attachments:

6. Minutes of the past meeting (Attachment 1)
7. Graduate Faculty Membership Requests (Attachment 2)
8. Planning Committee Requests (Attachment 3)
9. Curriculum Committee Requests (Attachment 4)

**The meeting was called to order at 1:00PM**

**MINUTES OF PREVIOUS MEETING**                      **APPROVED**  
(See Attachment 1)

**GRADUATE FACULTY CANDIDATES**                      **APPROVED**  
(See Attachment 2)

**ACADEMIC PLANNING COMMITTEE**                      **APPROVED**  
(See Attachment 3)

Dr. Davis chaired discussion of Academic Planning Committee, while Dr. Howard presented the Curriculum and Instruction request in Dr. Lawrence's absence. Dr. Wait presented the remaining Planning requests while Dr. Howard reassumed the Chairmanship.

**CURRICULUM COMMITTEE**                                      **APPROVED**  
(See Attachment 4)

### **PROGRAM REVIEW**

Dr. Lanham reported that majority of Program Reviews have been completed as of today's date. She reminded members to copy Program Reviews to Deans of the colleges from which the programs reside. Copies should also be forwarded to Dr. Lanham and Dr. Reynolds. Program Reviews will not be forwarded to Deans by Dr. Lanham. Final date for Program Reviews to be sent to Deans is Dec. 15.

### **CREDENTIALING COMMITTEE**

Dr. Blough discussed committee's meeting and review of CITE.

**Motion to move into Executive Session Dr. Davis at 1:25 PM.**  
**APPROVED**

**Returned to Regular Meeting at 1:49PM.**

### **OTHER BUSINESS DISCUSSED**

1. Dr. Howard distributed Graduate Council Curricular Change Requests to be effective January 1, 2019.

2. No volunteers have come forward for INTO as of today's date. Dr. Howard encouraged interested faculty to contact Dean Pittenger.
3. Dr. Howard discussed issues of cheating and plagiarism and that SafeAssign may have been "hacked." If faculty hear of this, they should report it to Dr. Howard.
4. Dr. Howard reported that majority of Graduate Council members completed the survey about Strategic Plan. The number one issue for all responders across the university is recruitment/retention. Dr. Howard will forward further information to Council as it is received.
5. Initiatives regarding recruitment/retention discussed by Dr. Howard and Dean Pittenger: 1) Dr. Howard suggested graduate faculty connect with undergraduate programs to encourage recruitment of students; 2) Dean Pittenger discussed idea for event on campus for Graduate School Recruitment, separate from Green and White Day.
6. Other ideas for recruitment/retention:
  - Helping students understand that they do not have to have the same undergraduate degree as their proposed graduate degree.
  - UNI 400 designed to help students prepare for graduate school. Dean Pittenger discussed how programs might want to develop sections of their own. Currently UNI 400 is not an online course, but online sections may be considered for future.

**The meeting was adjourned at 1:56PM.**



## Attachment 2

### Graduate Faculty Status Requests

Type	Faculty	College	Department	Graduate Faculty Level	Term Start	Term Expires
Add	Griswold, Doreen	SOM	Pathology	Associate	8/20/2018	12/10/2021
Add	Nolan, Jesse	CAM	Music	Associate	8/20/2018	12/10/2021
Add	Ouyang, Lei	COHP	School of Kinesiology	Associate	8/26/2019	12/9/2022
Add	Waugh, Carline	CAM	Music	Graduate	1/6/2020	
Add	Wolfe, Jeffrey	CAM	Music	Associate	1/14/2019	5/6/2022
Delete	Aftanas, Roxanne	COLA	English	Graduate	10/31/2010	10/31/2015
Delete	Burgueno, Maria	COLA	Modern Languages	Graduate	9/30/2010	9/30/2015
Delete	Butler, Shannon	COLA	Modern Languages	Graduate	12/1/2012	12/1/2017
Delete	Chavez, Sarah	COLA	English	Graduate	8/15/2016	8/15/2021
Delete	DeBruin, Nathaniel	COLA	History	Associate	8/21/2017	12/11/2020
Delete	Franzen, Christina	COLA	Classics	Graduate	1/14/2013	1/14/2018
Delete	Huffman, Jeffrey	CITE	Engineering	Graduate	2/24/2015	2/24/2020
Delete	Stone, Maggie	COLA	Sociology & Anthropology	Graduate	4/29/2015	4/29/2020
Edit	Aluthge, Ariyadasa	COS	Mathematics	Associate	1/14/2019	5/6/2022
Edit	Arthur, C. Damien	COLA	Political Science	Graduate	8/20/2018	12/8/2023
Edit	Atkins, Melissa	COLA	Psychology	Doctoral	8/20/2018	12/8/2023
Edit	Axel, Anne	COS	Biological Sciences	Graduate	1/8/2018	5/5/2023
Edit	Beard, Keith	COLA	Psychology	Doctoral	8/20/2018	12/8/2023
Edit	Behrman, Robert	COLA	Political Science	Graduate	8/20/2018	12/8/2023
Edit	Brewster, Hilary	COLA	English	Graduate	8/20/2018	12/8/2023
Edit	Carey, Allison	COLA	English	Graduate	8/20/2018	12/8/2023
Edit	Chrol, E. Del	COLA	Classics	Graduate	8/20/2018	12/8/2023
Edit	Damai, Puspa	COLA	English	Graduate	8/20/2018	12/8/2023
Edit	Daniel, Abby	COLA	English	Graduate	8/20/2018	12/8/2023
Edit	Davis, George	COLA	Political Science	Graduate	8/20/2018	12/8/2023
Edit	Day-Brown, Jonathan	COLA	Psychology	Doctoral	8/20/2018	12/8/2023
Edit	Deal, Robert	COLA	History	Graduate	8/20/2018	12/8/2023
Edit	Diener, Laura	COLA	History	Graduate	8/20/2018	12/8/2023
Edit	Dooley, Janet	CAM	Journalism and Mass Communications	Associate	1/14/2019	5/6/2022
Edit	Ellison, Robert	COLA	English	Graduate	8/20/2018	12/8/2023
Edit	Freidin, Nicholas	COLA	Anthropology	Graduate	8/20/2018	12/8/2023

Edit	Garnett, Richard	COLA	Sociology/Anthropology	Graduate	8/20/2018	12/8/2023
Edit	Gilpin, Susan	COLA	Communication Studies	Graduate	8/20/2018	12/8/2023
Edit	Graefe, David	COS	NRE	Associate	8/20/2018	12/10/2021
Edit	Hatfield, David	COLA	English	Graduate	8/20/2018	12/8/2023
Edit	Holbrook, Daniel	COLA	History	Graduate	8/20/2018	12/8/2023
Edit	Lassiter, Luke	COLA	Grad. Humanities	Graduate	8/20/2018	12/8/2023
Edit	Lassiter, Luke	COEPD	Elem/Sec Ed	Doctoral	8/20/2018	12/8/2023
Edit	Laubach, Martin	COLA	Sociology/Anthropology	Graduate	8/20/2018	12/8/2023
Edit	Law, Kevin	COLA	Geography	Graduate	8/20/2018	12/8/2023
Edit	Leonard, James	COLA	Geography	Graduate	8/20/2018	12/8/2023
Edit	Lewis, Daniel	COLA	English	Associate	8/20/2018	12/10/2021
Edit	Linz, Thomas	COLA	Psychology	Doctoral	8/20/2018	12/8/2023
Edit	Mewaldt, Steven	COLA	Psychology	Doctoral	8/20/2018	12/8/2023
Edit	Miller, Montserrat	COLA	History	Graduate	8/20/2018	12/8/2023
Edit	Morillo, Jose	COLA	Modern Languages	Graduate	8/20/2018	12/8/2023
Edit	Morris, Burnis	CAM	Journalism and Mass Communications	Associate	1/14/2019	5/6/2022
Edit	Mulder, Pamela	COLA	Psychology	Doctoral	8/20/2018	12/8/2023
Edit	Nolte, Ian	COLA	ENG	Graduate	8/20/2018	12/8/2023
Edit	Oudghiri-Otmani, Mohammed Amine	COLA	English	Associate	8/20/2018	12/10/2021
Edit	Palmer, William	COLA	History	Graduate	8/20/2018	12/8/2023
Edit	Patnaik, Sumeeta	COLA	English	Graduate	8/20/2018	12/8/2023
Edit	Peckham, Joel	COLA	English	Graduate	8/20/2018	12/8/2023
Edit	Peckham, Rachael	COLA	English	Graduate	8/20/2018	12/8/2023
Edit	Perkins, Caroline	COLA	Classics	Graduate	8/20/2018	12/8/2023
Edit	Powell, Jeffrey	COLA	Philosophy	Graduate	8/20/2018	12/8/2023
Edit	Prejean, Kelli	COLA	English	Graduate	8/20/2018	12/8/2023
Edit	Proctor, Patricia	COLA	Political Science	Graduate	8/20/2018	12/8/2023
Edit	Quintana Villamandos, Maria	COLA	Modern Languages	Associate	8/20/2018	12/10/2021
Edit	Riemer, James	COLA	English	Graduate	8/20/2018	12/8/2023
Edit	Roth, Frederick	COLA	Sociology/Anthropology	Graduate	8/20/2018	12/8/2023
Edit	Rutherford, Phillip	COLA	History	Graduate	8/20/2018	12/8/2023
Edit	Schulenberg, Shawn	COLA	Political Science	Graduate	8/20/2018	12/8/2023
Edit	Sullivan, Donna	COLA	Sociology	Graduate	8/20/2018	12/8/2023
Edit	Tabyshalieva, Anara	COLA	History	Graduate	8/20/2018	12/8/2023

Edit	Tarter, Barbara	COLA	Communication Studies	Graduate	8/20/2018	12/8/2023
Edit	Treftz, Jill	COLA	English	Graduate	8/20/2018	12/8/2023
Edit	Trowbridge, David	COLA	History	Graduate	8/20/2018	12/8/2023
Edit	Walz, Anita	COLA	Geography	Graduate	8/20/2018	12/8/2023
Edit	Warner, Jamie	COLA	Political Science	Graduate	8/20/2018	12/8/2023
Edit	Woods, Edward	COLA	Communication Studies	Graduate	8/20/2018	12/8+A1:G72/2023

## Attachment 3

### Academic Planning Committee Requests January 25, 2019

#### **College of Business**

Type of change request: Degree Name Change, Non-Curricular

Department: Management

Degree Program: DMPNA (Old Name) DNAP (New Name)

Starting Date: Fall 2019

Rationale:

We are requesting a name change for the Doctor of Management Practice in Nursing Anesthesia (DMPNA) to the Doctor of Nursing Anesthesia Practice and Management (DNAP). This is necessary to comply with the accrediting agency The Council on Accreditation of Nurse Anesthesia Educational Programs (COA). The COA has mandated that all doctoral programs carry the Doctor of Nurse Anesthesia Practice or the Doctor of Nurse Anesthesia titles.

#### **Graduate College**

Type of change request: Catalog Changes, Non-Curricular

Department: Graduate College

Degree Program: All Graduate Degree Programs

Starting Date: Fall 2019

Rationale:

Changes to portions of the catalog outlining graduation requirements to ensure ready understanding and to provide a clear and accurate account of long-standing procedures.

#### **College of Information Technology and Engineering**

Type of change request: Admissions and Curriculum Changes

Department: Computer Science

Degree Program: Master of Science in Information Systems

Starting Date: Fall 2019

Rationale:

The Master of Science in Information Systems program (MSIS) was established at Marshall University in 1997 serving primarily working professional in the area. Since then, technology has been changed rapidly and the regional demographics have also changed significantly. To answer the new demand in the field of information systems, the Weisberg Division of Computer Science conducted the review of the current curriculum over the year by the constituents of the program (Industry-Advisory Board, alumni, students and faculty) and proposes a revised 30 credit curriculum of the MSIS program with mainly following changes: (1) Admission requirement change by providing two bridge courses of computer programming and database for applicants lacking in technical background before full admission, and (2) Degree requirement change by changing required courses and updating existing courses with new advanced topics needed in the job market. We believe this change of the curriculum will strengthen the quality of the program and improve its enrollment.

Type of change request: Admission Requirements, Non-Curricular

Department: Applied Science and Technology

Degree Program: Master of Science in Environmental Science

Starting Date:

Rationale: Main change is making Chem 205 the required course for admission instead of Chem 211. Most incoming students already have Chem 211, but many incoming students do not necessarily have a “hard science” undergrad background and wish to pursue a more policy/law/regulatory branch of ES, for which Chem 211 is not necessary. No courses that count toward the ES MS have a Chem 211 requirement that don’t already list as prerequisite. No required course has a Chem 211 prerequisite. Additionally, clarifying the work experience substitute.

### **College of Pharmacy**

Type of change request: Catalog Description of Curriculum Requirements, Non-Curricular

Department: School of Pharmacy

Degree Program: Doctorate of Pharmacy / Master of Public Health

Starting Date: Fall 2019

Rationale:

We would like to respectfully request the addition of new material for the graduate catalog to better illustrate the structure of the PharmD/MPH dual degree program.

## Attachment 4

### Graduate Curriculum Committee Agenda

#### College of Information Technology and Engineering

##### CITE – Course Addition

Department: Engineering  
 Course: CE 639 Civil Infrastructure Management Systems  
 Catalog: Application of decision analysis, mathematical programming, performance modeling and various heuristics to develop management plans for transportation infrastructure assets, primarily focused on highway pavements and bridges.  
 Prerequisites: Graduate standing  
 First Term: Fall 2019  
 Credit Hours: 3

##### CITE – Course Changes

Change Type: Title and Description  
 Department: Applied Science & Technology  
 Current Title: ES 550 Environmental Law  
 New Title: ES 550 Environmental Law and Policy  
 Old Catalog: Introduction to major federal environmental legislation and related state programs, including policy issues, judicial review, and practical effects. Includes CERCLA, RCRA, Clean Water Act, Clean Air Act, NEPA, ESA, and SDWA.  
 New Catalog: Introduction to major federal environmental legislation and related state programs, judicial review, and practical effects, and to processes for formulation and development of environmental policy.  
 Rationale: Combining two courses – Env Law and Env Policy as the subject matter significantly overlaps. Deleting Env Policy. The two courses are redundant.

Change Type: Title and Description  
 Department: Information Systems  
 Current Title: IS 605 Systems Analysis Techniques  
 New Title: IS 605 Systems Analysis and Design  
 Old Catalog: Introduction to information systems from systems implementor's viewpoint; information systems life cycle; techniques of analysis; data dictionaries and data flow diagrams; computer-oriented system description.  
 New Catalog: This course focuses on analysis and design of information systems. Topics include system development approaches, UML design, system integration, service-oriented architecture and foundation.  
 Rationale: This course will combine the contents of current IS 605 Systems Analysis Techniques and IS 610 Systems Design into one course (IS 605). The course title should be changed to "Systems Analysis and Design" to reflect the actual contents of the course. The contents of the two current courses can be learned in one term (IS 605) so that IS 610 can cover more advanced topics.

Change Type: Title and Description  
 Department: Information Systems  
 Current Title: IS 610 Systems Design  
 New Title: IS 610 Systems Quality Assurance  
 Old Catalog: Physical design of information systems; hardware selection; software design, database considerations; program development; software structuring techniques; cost/performance trade-offs; system implementation; evaluation and optimization techniques.

- New Catalog:** This course covers the steps of developing enterprise IT policies, standards, guidelines and procedures while ensuring quality and compliance in the design, implementation, evaluation, and monitoring of a comprehensive system.
- Rationale:** Advanced topics related to assuring quality in system design and implementation are added to IS 610. Topics in this course include more quality assurance: Collaborative Quality Assurance Techniques; Quality, Issues and Ethics, Data Analytics, IT Policy Implications, Liability for System and Data Quality, Ethical Implications; Software Engineering as a Profession: A Moral Case for Licensure1, Copyright Law in the digital Age; Managing Workplace Privacy Responsibly, Virtual Harms; Overview of IT Six Sigma and Lean Techniques.
- Change Type:** Title and Description  
**Department:** Information Systems  
**Current Title:** IS 622 Information Structures II  
**New Title:** IS 622 Emerging Technology in Information Systems  
**Old Catalog:** A continuation of IS 621. Tree, graph, and set structures; file structures for secondary storage; aspects of discrete mathematics. (PR: IS 621)  
**New Catalog:** This course will explore the emerging technologies in information systems. These technologies are generally new but include older technologies that are still controversial and relatively undeveloped in potential. (PR: IS 621)  
**Rationale:** Technology changes rapidly. Innovative technology and tools in information systems will be studied in this course rather than covering more conventional concepts.
- Change Type:** Credits and Description  
**Department:** Information Systems  
**Course:** IS 698 Internship  
**Old Credits:** 0  
**New Credits:** 1-3  
**Old Catalog:** Supervised work experience in information systems or related fields. No credit counted for graduation.  
**New Catalog:** Supervised work experience in information systems or elated fields. Internship course (1-3 credits) counted for graduation.  
**Rationale:** International students can apply for working permit (CPT) using credited internship course only (new immigration law) and this change will allow international students to have an off-campus internship experience.

#### **CITE – Course Deletions**

- Department:** Applied Science & Technology  
**Course:** ES 662 Environmental Policy  
**Rationale:** Combining this course with ES 550 Env Law and renaming ES 550 Env Law and Policy  
**Final Term:** Last offered Fall 2017

#### **College of Science**

##### **COS – Course Addition**

- Department:** Physics  
**Course:** PHY 642 Advanced Quantum Mechanics  
**Catalog:** This course covers advanced concepts of quantum mechanics at the graduate level. Topics include fundamental issues, approximation methods and applications.  
**Prerequisites:** PHY 630  
**First Term:** Spring 2019  
**Credit Hours:** 4

#### **School of Medicine**

**SOM – Course Additions**

- Department: Department of Clinical and Translational Sciences (DCTS)  
 Course: CTS 611 Machine Learning Journal Club  
 Catalog: Articles that describe either clinical or translational research along with machine learning techniques will be discussed. Students are expected to read, describe and present at these fourteen, 1-hour weekly sessions.  
 Prerequisites: None  
 First Term: Summer 2019  
 Credit Hours: 1
- Department: Department of Clinical and Translational Sciences (DCTS)  
 Course: CTS 612 Introduction to Clinical Machine Learning  
 Catalog: This course is designed for those who are interested in using machine learning with a focus on translational medical research (animal as well as human), which is concerned with bringing bioscience research discoveries into patient care. This course explores the characteristic of its methods, its benefits and limitations. Explain and describe different learning algorithms. machine learning journal club is optional  
 Prerequisites: None  
 First Term: Summer 2019  
 Credit Hours: 3
- Department: Department of Clinical and Translational Sciences (DCTS)  
 Course: CTS 615 Introduction to Clinical Databases  
 Catalog: This course is an introduction to the concepts of database processing and management especially as it relates to clinical translational research. The focus is to bring bioscience research discoveries into patient care. Primary topics include discussions of major database types, history of databases and database issues, security, database principles, DBMS, RDBMS, SQL Queries, Big Data, Marshall Clinical Data Warehouse.  
 Prerequisites: None  
 First Term: Summer 2019  
 Credit Hours: 3
- Department: Department of Clinical and Translational Sciences (DCTS)  
 Course: CTS 616 Introduction to Clinical Programming using C#  
 Catalog: Course will present C#, a tool that can be used to manipulate data within the Clinical database using LINQ/other to connect the application to the database. The focus is on translational research, which is concerned with bringing bioscience research discoveries into patient care. This course is designed for those who are interested in medical research programming using console/web/smart-phone application technology  
 Prerequisites: none  
 First Term: Summer 2019  
 Credit Hours: 3
- Department: Department of Clinical and Translational Sciences (DCTS)  
 Course: CTS 628 Introduction to Java Clinical Programming  
 Catalog: The goal of this course is to expose clinical informatics students to programming in Java for common clinical and machine learning problem solving tasks. This course will focus on topics related to object-oriented programming with emphasis on object-oriented design and style, classes, recursion, searching and sorting, simple data structures, and graphical user interfaces.  
 Prerequisites: none  
 First Term: Summer 2019  
 Credit Hours: 4
- Department: Department of Clinical and Translational Sciences (DCTS)  
 Course: CTS 637 Introduction to Tableau: From Clinical Data to Clinical Intelligence  
 Catalog: These is an ever-increasing pool of clinical data flowing in from a wide variety of sources ranging from electronic health records, disease registries, surveys, smart homes, wearable devices, etc. Tableau is a business/clinical intelligence tool that makes it easier to process this massive stream of information through



data visualization, data discovery, visual analytics, dashboards, and visual storytelling. In this course, students will learn the fundamentals of creating interactive visual displays using an industry standard visualization tool using real medical data.

Prerequisites: none  
 First Term: Summer 2019  
 Credit Hours: 3

Department: Department of Clinical and Translational Sciences (DCTS)  
 Course: CTS 645 Navigating Health IT Systems for Data Quality  
 Catalog: The quality of healthcare data – i.e. accuracy, relevance to use case and completeness – is critical to clinical and translational research and medical practice. Pulling the right data is difficult, if not impossible, without a basic understanding of health information systems (HIS) and medical classification standards. This course provides an overview of these HIS and standards in the healthcare industry and enables gathering and use of HIS data effectively.

Prerequisites: none  
 First Term: Summer 2019  
 Credit Hours:

## Attachment 5 Program Review Requests

**Committee is recommending approval for all.**

<b>Program</b>	<b>Recommendation Request</b>
MA in Communication Studies	Current Level
MA in Humanities	Current Level
Graduate Certificate in Appalachian Studies	Current Level
MA in Sociology	Current Level
MA in Special Education	Current Level
Doctor of Physical Therapy (DPT)	Current Level
MA in Music	Current Level
MS/MA in Biological Sciences	Current Level
MA in History	Current Level
Graduate Certificate in Public History	Current Level
Graduate Certificate in Women's Studies	Current Level
Doctor of Pharmacy (PharmD)	Current Level
Graduate Certificate in Latin	Current Level

