Graduate Record 88B

August 2021

GRADUATE COUNCIL MEMBERSHIP 2020-2021

Patrick J. Bateman Management WCBA Grad Program Director Christopher Bellas Criminal Justice BCHHS CGS Committee

Ewelina Boczkowskia Dana School of Music CCC&A CGS Committee

Lauren Cummins Teacher Education BCLASSE CGS Committee

Jake Protivnak Counseling BCLASSE Grad Program Director

Kendra Fowler Marketing WCBA CGS Committee

Sherri Lovelace-Cameron Chemistry STEM Grad Program Director

Christine McCullough Art CCC&A Grad Program Director

Valerie O’Dell Nursing BCHHS Graduate Program Director

Tomi Ovaska Economics BCLASSE CGS Committee

Stephanie Profera Student Representative

Jake Protivnak Counseling BCLASSE Grad Program Director

Sal Sanders Dean of Graduate Studies

Dolores Sisco American Studies BCLASSE Grad Program Director

Virgil Solomon Mech and Indus Engineering STEM CGS Committee

Chanda Weigel Student Representative

Graduate Council Chair: Valerie O’Dell

Graduate Council Secretary: Kendra Fowler

Graduate Curriculum Committee Chair: Virgil Solomon

Admission and Appeals Committee: Dolores Sisco

Assistantship Allocation Chair: Committee tabled

Exceptions Chair: Sal Sanders

Grievance Committee Chair: Christopher Bellas

Graduate Recruitment & Retention Chair: Committee tabled

Policy Committee Chair: Committee tabled

Graduate Curriculum Committee Chair— Virgil Solomon, Mechanical Engineering

membership: Daniel Ayana, History

Christopher Bellas, Criminal Justice and Forensic Sciences

M. Kathleen Cripe, Teacher Education

Christine McCullough, Art

Faramarz Mossayebi, Electrical & Computer Engineering

Ying Wang, Marketing

Francine Hazy, Student Representative

Olga Gutan, Student Representative

Sydney Corbean, Student Representative

Admission and Appeals Committee Chair-- Dolores Sisco

membership: Rebecca Curnalia, Communication

Karen Larwin, Educational Leadership

Alina Lazar, Computer Science and Information Systems

Exceptions Committee Chair—Sal Sanders

membership: Valerie O’Dell, Nursing (Graduate Council Chair)

Virgil Solomon, Mechanical Engineering (Graduate Curriculum Committee Chair)

Graduate Studies Student Advisory Council:

Ryan Cheslik and Shantia Cox, WCBA

Olga Gutan and Marcus Harden, STEM

Francine Hazy and Kelsey DeMart, BCLASSE

Chanda Weigel and Evie Zimmer, CCC&A

Stephanie Profera and Sydney Corbean, BCHHS

**GRADUATE FACULTY MEMBERSHIP**

**CATEGORY 1 MEMBERS approved 2020-2021**

Isam Amin

Abdu Arslanyilmaz

Diana Awad Scrocco

Jennifer Behney

Cara Berg-Carramusa

Kristopher Brown

Snjezana Balaz

Ganesaratnam Balendiran

Laura Beadling

Kristin Bruns

Chad Cook

Lauren Cummins

Kent Engelhardt

Debbie Donnelly Espy

Jeanette Garr

Lucas Hardy

John Hazy

Patricia Hoyson

AKM Anwarul Islam

Carrie Jackson

Alan Jacobs

Jozsi Jalics

Thomas Jordan

Daniel Keown

Peter Kimosop

Mary LaVine

Linda Pax Lowes

Don Martin

Christine McCullough

Sara Michaliszyn

Nazanin Naderi

Peter Norris

Anita O’Mellan

Rachael Pohl-Krauza

Alicia Prieto Langarica

Holly Martin

Jake Protivnak

Ian Renne

Christina Saenger

Jeremy Schwartz

Suresh Sharma

John Sullins

Padraic Taylor

Emre Ulusoy

Charles Vergon

Thomas Wakefield

Robert Wardle III

Feng Yu

**GRADUATE COUNCIL POLICY CHANGES 2020-2021**

**Change of Category 1 Graduate Faculty Status to include Part time Faculty**

The change was approved to allow part time faculty members to hold Category 1 Graduate Faculty status.

**Dean of Grad College to approve Category 1 Faculty**

A change was formalized to allow the Dean of the College of Graduate Studies to review and approve all Category 1 faculty applications.

**Thesis/Dissertation Advisor Responsibilities and Expectations**

A document was created as a resource with Responsibilities and Expectations for Thesis/Dissertation Advisors. This was approved and distributed to graduate faculty.

**New Graduate Faculty Status was created- Category IP (Perpetual) status**

A new graduate faculty status was approved for those full-service faculty who have previously earned and meet the specified criteria of Category 1 status and who have had direct, ongoing graduate program involvement with research, scholarship, or grant activity serve to further the mission and goals of the College of Graduate Studies. New faculty are ineligible to apply.

**Change in transcript admission requirement**

To streamline the admissions process and to better serve students, a**n official transcript is required from each college or university attended, except YSU:**

* where a degree was earned, or is expected to be earned
* where post-baccalaureate credit was earned
* where any graduate level courses were attempted, or completed

**Change in Graduate Council Membership**

Due to the reorganization of colleges, it was decided that impacted council members would complete their existing term and then gradually we move forward to having two representatives per college.

**Revised Readmission Policy**

Our goal is to make it easier to re-admit students who have been away from YSU for a short time. An applicant in good standing that is seeking readmission into the same program in the College of Graduate Studies shall not be required to submit new supplemental items (including standardized tests). New transcripts will only be required for schools not indicated on the previous application. If the student has not been enrolled in graduate study at YSU for 2 years or less, the student can be readmitted without departmental review. If the student has not been enrolled in graduate study for more than 2 years, the Program Director will be consulted and may decide to review the application and provide a readmission recommendation, or may request that the student be readmitted without department review.

A student in good standing that is seeking readmission into a different program than the one to which they were last admitted, will be required to submit all supplemental items required for admission to the new program. In cases where the GRE/MAT is a required application item, the GRE/MAT will be waived if the student has successfully completed 9sh of graduate study with a GPA of 3.0 or above from a regionally accredited institution – if such a waiver is requested by the Program Director.

​Please note that a readmit is a student that has attended the YSU College of Graduate Studies in the past. Students that were accepted in the past, but never registered for courses are not considered to be a readmit.

**Discontinuation of Bound Thesis/Dissertation Requirement**

The one bound thesis/dissertation requirement has been discontinued. Students will be provided contact information of companies who provide this service if they wish to have personal copies bound.

**Covid Admission Expectations**

Covid admission exceptions will remain for anyone applying through summer 2021. Unless further action these exceptions will discontinue after summer 2021.

**EXCEPTIONS COMMITTEE REPORT 2020-2021**

**Exceptions Committee Report to Graduate Council for June, July and August 2020**

The Graduate Council Exceptions Committee, unanimously approved an exception to the GRE requirement for admission to the Master of Social Work program as requested by Dr. Woods. This exception permitted the applicant to be admitted to the MSW program without taking the GRE, despite having an undergraduate GPA less than 2.70.

The Graduate Council Exceptions Committee granted an exception to the admission requirements for the **Master of Computer and Information Systems** program. In light on the impact of the Coronavirus pandemic on students and their families the committee granted an exception to permit an applicant to be admitted to the Master of Computer and Information Systems program without fulfilling the GRE requirement. In addition the committee approved a temporary exception to the admission requirements for students with a cumulative undergraduate GPA of 2.75 – 2.99 to be eligible for provisional admission to this program without fulfilling the GRE requirement.  This exception to the admission requirements of this program is effective immediately and will apply to candidates making application for the degree program through spring 2021 term.

The Graduate Council Exceptions Committee granted an exception to the admission requirements for the **Applied Behavior Analysis** program permitting an applicant to be admitted to the program without fulfilling the GRE requirement. In addition, the committee approved a temporary exception to the ABA admission requirements due to the impact of the Coronavirus on applicants, their families, the economy, etc. This would permit applicants to be eligible for admission to this program without fulfilling the GRE requirement.  This will allow, but not require, this program to provide future applicants this exception without the need to submit a request for each applicant. This exception to the admission requirements of your program is effective immediately and will apply to candidates applying to the ABA degree program through spring 2021 term.

The Graduate Council Exceptions Committee granted an exception to the admission requirements for the **Educational Administration** program. In light of the impact of the Coronavirus pandemic on students and their families the committee granted an exception to permit students with a cumulative undergraduate GPA of 2.75 – 2.99 to be eligible for provisional admission to this program without fulfilling the GRE requirement. This exception to the admission requirements is effective immediately and will apply to candidates making application for the degree program through spring 2021 term.

The Graduate Council Exceptions Committee granted an exception to the GRE admission requirement for all applicants to the **MS in Mathematics** program for the 2020-2021 academic year was unanimously approved by the Graduate Council Exceptions Committee. The GRE requirement for admission into the MS in mathematics program is waived for all applicants during the 2020-2021 academic year effective immediately.

The committee unanimously agreed to grant an exception to permit an applicant to be admitted to the MS in Environmental Science program without fulfilling the GRE requirement as requested by Dr. Jeff Dick.

The committee unanimously agreed to grant an exception to permit an applicant to be admitted to the Master of Business Administration program with a cumulative undergraduate GPA less than 2.7.

The committee unanimously agreed to grant an exception to permit an applicant to be admitted to the Master of Business Administration program with a cumulative undergraduate GPA of less than 2.7 without taking the GRE or GMAT due to the applicant’s significant professional experience and accomplishments as requested by Dr. Bateman.

The committee members unanimously agreed to grant an exception to permit the transfer of additional hours to fulfill the requirements of the PhD in Health Sciences degree. The committee members determined that given the number of credits this applicant had completed toward a Ph.D. degree an exception was warranted. The committee members further recommended that no dissertation credits be transferred to fulfill degree requirements, since the research component is such a critical component of this degree.  The committee members unanimously agreed that 18sh of transfer credit could be applied to the Ph.D. degree program requirements and have further agreed to permit an additional 6sh be applied with appropriate written justification by Dr. Learman to the committee. This exception would allow for a total of up to 24sh of transfer credit to fulfill the Ph.D. in Health Sciences degree requirements.

Graduate Council Exceptions Committee members unanimously granted a request to temporarily make the GRE requirement optional for applicants to the MS in Ed. in Intervention Services. This exception requested by Dr. VanVoorhis will be effective for applicants applying through the spring 2021 term.

The members of the Exceptions Committee unanimously approved a request, of a MSN applicant, for an exception to the GRE requirement requested by Dr. Shields. This exception permitted an applicant to be admitted to the MSN program and College of Graduate Studies without taking the GRE despite having an undergraduate GPA of less than 2.7.

Graduate Council Exceptions Committee members unanimously granted Dr. Colwell’s request to waive the requirement for letters of reference for admission to the MRC program for an applicant.

The members of the Graduate Council Exceptions Committee unanimously approved Dr. O’Dell’s request for an exception to the Graduate College GRE requirement for students with an undergraduate GPA of less than 2.7.  Dr. O’Dell abstained from voting as she made the request. This exception was approved largely based on the applicant’s work experience.

**ADMISSION AND APPEALS COMMITTEE REPORT 2020-2021**

The Admission and Appeals Committee heard two scholarship appeals. One appeal was from a student in the Master of Music. The second was from a student in the MBA program. Based on the circumstances and the requirements of the scholarship, both scholarships were reinstated.

The Admission and Appeals Committee heard three appeals of academic suspension. The first appeal was from a student in the Financial Economics Program. The program director did not support the appeal due to the past performance. The Appeals Committee denied the appeal. The second appeal was from a student in the Industrial Engineering program. This student was early in the program and the program director supported the student’s return for another term. The Appeals committee granted the appeal. The third appeal was from a student in the MBA Program. The program director supported the appeal. The Appeals committee granted the appeal.

**CURRICULUM COMMITTEE REPORT 2020-2021**

**Admission Changes 2020-2021**

**2020-21:72** Program Change. Master of Business Administration. Changes to allow flexibility for transfer courses and student choice. Revision of terminology: concentrations to specializations and hybrid to flex. Clarification of admission language.

**New Graduate Courses 2020-2021**

2020-21:7 NURS 6917 New 6900 level course

2020-21:8 NURS 6918 New 6900 level course

2020-21:17 NURS 7045 New 6900 level course

2020-21:18 NURS 7046 New 6900 level course

2020-21:19 NURS 7047 New 6900 level course

2020-21:20 NURS 7048 New 6900 level course

2020-21:21 NURS 7049 New 6900 level course

2020-21:22 NURS 7050 New 6900 level course

2020-21:23 NURS 7051 New 6900 level course

2020-21:27 DATX 5896 New 6900 level course

2020-21:30 NURS 8910 New 6900 level course

2020-21:37 OMBA 6962 New 6900 level course

2020-21:39 EDAD 7022A New 6900 level course

2020-21:40 EDAD 7022B New 6900 level course

2020-21:41 EDAD 7050A New 6900 level course

2020-21:42 EDAD 7050B New 6900 level course

2020-21:44 EDAD 8142 New 6900 level course

2020-21:45 EDAD 8191 New 6900 level course

2020-21:46 EDAD 8192 New 6900 level course

2020-21:47 EDAD 8193 New 6900 level course

2020-21:48 EDAD 8194 New 6900 level course

2020-21:49 EDAD 8195 New 6900 level course

2020-21:50 EDAD 8196 New 6900 level course

2020-21:30 NURS 8910 New 8900 level course

2020-21:43 EDAD 8135 New 8900 level cours

2020-21:80 RESP 5820 *The Respiratory Care Profession.* Study of origins, current role, and future directions of respiratory care profession within the framework of the current health care environment. Examination of professional resources is also included. Prereq.: Active membership in American Association for Respiratory Care and acceptance in MRC program. 3 s.h. (new 5800 swing course.)

2020-21:81 RESP 5860 *Technology Applications for Health and Human Services.* Exploration of technology applications for education, presentations, communications and management in Health and Human Service disciplines. Creation of digital media such as audio and/or video files, spreadsheet macros, e-portfolios and Web-based applications of various technologies will be required. Application of technology to education, supervision or management will be evaluated through completion of a technology-enhanced project. Prereq.: Acceptance in MRC program or permission from program director. 3 s.h. (new 5800 swing course.)

2020-21:82 RESP 5880 *Advanced Management of the Ventilator Patient.* Course will present current classifications, evidence-based research and application of mechanical ventilator concepts in critical care areas. Technical capabilities of modes will be described along with optimal settings. Current protocols in RC will also be discussed. Prereq.: Acceptance in the BSRC, BSRC degree advancement/completion program or Master of respiratory care program, junior standing, or permission of program director. 3 s.h. (new 5800 swing course.)

2020-21:86 GERO 6905 *Social Gerontology*. Social Gerontology. Integration and application of gerontological theories; major conceptual issues regarding life span development; and contemporary gerontological concepts and research. Prereq.: None. 3 s.h. (new 6900 swing course.)

2020-21:88 ACCT 6940 *Data Analytics for Accounting.* Course emphasis is on knowledge and skills required by accountants and managers to collect, manage, query, analyze extremely large volumes of data in various formats from numerous sources. Focus will be given to results that management of data brings to an organization. It will cover a broad spectrum of topics chosen from the following: database management, descriptive statistics, predictive analytics, through data discovery, data merging & cleaning, data visualization, ethics data quality, and advanced data modeling. It will include hands-on use of available software found in industry practices such as SAS and Tableau, with an emphasis on spreadsheets and coding skills.. 3 s.h. (New 6900 level course.)

2020-21:90 ACCT 6971 *Regulation Theory Review and Practice*. A culmination of learning experiences in the regulation area (federal taxation and business law) necessary for accounting professionals, with a strong emphasis placed upon the CPA (Certified Public Accountant) exam in the regulation areas. An integrative, practice-based project in federal tax and/or business law will be required. Prereq.: Undergraduate major in accounting or its equivalent. 2 s.h. (New 6900 level course).

2020-21:91 ACCT 6973 *Business Environment and Concepts Theory Review and Practice*. A culmination of learning experiences in the business environment and concepts (BEC) area necessary for accounting professionals, with a strong emphasis placed upon the CPA (Certified Public Accountant) exam in the BEC areas. An integrative, practice-based project in the BEC areas will be required. Prereq.: Undergraduate major in accounting or its equivalent. 2 s.h. (New 6900 level course).

2020-21:95 OMBA 6975 *Business Policy and Strategy*. Strategy involves thinking at the enterprise level. Successful strategy design and implementation requires a holistic understanding of the threats and opportunities in the firm’s external environment, and of its internal resources and capabilities. It also requires a synthetic view on how the firm integrates functional activities and cross-functional business processes. This course is designed to develop such an integrative view of the firm and its environment, along with appropriate analytical skills. Prereq.: OMBA 6923 Corporate Financial Management, OMBA 6944 Operations & Supply Chain Management, OMBA 6955 Applied Marketing Strategy. 3 s.h. (New 6900 level course).

2020-21:98 STEM 5890 *STEM Graduate Internships*. The Graduate STEM Internship provides the student with a professional work experience or research experience in an organizational environment. The internship is an extension of the curriculum and provides meaningful experience related to the student’s area of concentration. This academic experience encourages examination about and beyond daily professional related work, in order to broaden students’ horizons intellectually, professionally and personally. Students will work with the STEM Careers, Internships & Co-op office and their designated Program Coordinator or Faculty Intern Advisor. The internship course is for credit and can be used to fulfill degree requirements and is charged at the regular tuition rate. Prereq.: A student should at least be accepted into their Graduate program, a 3.0 overall GPA, and approval by the STEM Careers, Internships & Co-op office in consultation with the student's designated Department Chair/Program Coordinator/Faculty Intern Advisor.1-3 s.h. (New 5800 swing level course).

2020-21:113 CRJS 5872 *Drugs and Crime*. This course will cover the drug-crime connection. In doing so, a wide variety of topics will be highlighted from a history of criminal justice policies on various drugs to ways to prevent and treat substance abuse. The three learning objectives (LO) that will be pursued in this course are: 1) explain the context of the criminal justice approaches to specific types of drugs; 2) apply criminal justice (CJ) theories on drug use and abuse; and 3) analyze and assess drug-control policies and criminal justice intervention/management strategies. These three course objectives relate to the overall CJ degree learning outcomes in fostering critical thinking relative to CJ policies, literature review development, and the inter-relationships within the CJ system. Prereq.: None. 3 s.h. (New 5800 level swing course).

2020-21:114 MRCH 5875 *Directed Individual Study in Merchandising Fashion & Interiors*. Individual study or research of a unique problem or issue related to Merchandising: Fashion and Interiors. Application must be made with the department prior to registration. Prerequ.: Junior standing. Prereq.: Junior Standing. 1-6 s.h. (New 5800 level swing course).

2020-21:124 HRS 8960 *Higher Education in Health Sciences.* This course introduces the organization and governance of the academic setting, university accreditation processes and orients to the 3 faculty roles (teaching, service and research) with emphasis on teaching to students pursuing careers in the Health Sciences. The course presents an overview of learning theories and curriculum development. Logistics for teaching on-campus, hybrid and online provided courses including use of a learning management system are provided. Prereq.: None. 3 s.h. (New 8900 level course).

2020-21:125 HRS 8961 *Classroom Management & Teaching Strategies in Health Sciences*. Classroom management strategies for engaged learning using technology which benefit the diversity of Health Sciences student learners in today’s classroom are introduced. Learning assessment options are discussed (assignments, classroom activities and testing) including the use of rubric for grading and item analysis for test review and development. Prereq.: None. 3 s.h. (New 8900 level course).

2020-21:142 MRCH 5895 *International Studies in Merchandising Fashion and Interiors.* The focus is to travel to designated countries while focusing on the professional areas of Merchandising: Fashion and Interiors and their relationship to fashion, textiles, and home fashions of the country of visit. Recognizing the economic, political, and social perspectives related to the textiles and apparel global economy. Class sessions and travel as well as pre-tour and post-tour assignments and evaluation based on course objectives supervised by the Merchandising faculty Prereq.: Junior, permission of instructor and department chairperson. 3 s.h. (New swing level course.)

2020-21:143 HRS 6970 *Scientific Writing in Health Sciences.* This course will address four major areas of written communication for the scientiﬁc process: institutional review board, grant writing, thesis/dissertation, and writing for manuscript submission. This course will engage the student in the activity of writing clear and concise documents that are readable to large diverse audiences while remaining technically proﬁcient. The course will address common pitfalls to written communication and will culminate in a project that is peer reviewed. Prereq.: None. Cross listed: HRS 8970. 3 s.h. (New 6900 level course.)

2020-21:144 HRS 8970 *Scientific Writing in Health Sciences.* This course will address four major areas of written communication for the scientiﬁc process: institutional review board, grant writing, thesis/dissertation, and writing for manuscript submission. This course will engage the student in the activity of writing clear and concise documents that are readable to large diverse audiences while remaining technically proﬁcient. The course will address common pitfalls to written communication and will culminate in a project that is peer reviewed. Prereq.: None. Cross listed: HRS 6970. 3 s.h. (Addition of cross listed course.)

**Deleted Graduate Courses 2020-2021**

### 2020-21:60 ART 5850 *Topics in Painting and Drawing*. (Delete a 5800 level course.)

### 2020-21:61 ART 5860 *Topics in Design*. (Delete a 5800 level course.)

### 2020-21:66 GEOG 5805 *Remote Sensing 1.* (Delete a 5800 level course.)

### 2020-21:67 GEOG 5806 *Remote Sensing 2.* (Delete a 5800 level course.)

### 2020-21:68 GEOG 5810 *Geographic Information Science 1.* (Delete a 5800 level course.)

### 2020-21:69 GEOG 5811 *Geographic Information Science 2.* (Delete a 5800 level course.)

### 2020-21:70 GEOG 5814 *3D Modeling and GIS.* (Delete a 5800 level course.)

**2020-21:103** HHS 6925 *Integration, Interoperability, and Standards*. (Delete a 6900 level course).

**2020-21:106** HHS 6950 *Professional Codes in Healthcare*. (Delete a 6900 level course).

**2020-21:109** HHS 6970 *Organizational Behavior in Health Care*. (Delete a 6900 level course).

**2020-21:110** HHS 6972 *Information Systems for Health and Human Services Management.* (Delete a 6900 level course).

**2020-21:111** HHS 6981 *Grant Writing.* (Delete a 6900 level course).

**2020-21:139** MAT 6965 *Advanced Perspectives.* (Delete a 6900 level course).

**Changes to Graduate Courses 2020-2021**

2020-21:5 NURS 6900 Healthcare Issues & Trends. Change of Course title.

2020-21:6 NURS 6901 Theoretical Foundations in Science & Research. Change of Course title.

2020-21:9 NURS 7003 Role Development in Advanced Practice. Change of title and description

2020-21:10 NURS 7005 change of semester hours

2020-21:11 NURS 7037. Adult Gerontology Acute Care 1 Change in course description.

2020-21:12 NURS 7038 Adult-Gero Acute Care 1 Practicum Change in course description.

2020-21:13 NURS 7039 Adult-Gero Acute Care 2. Change in course description and prereq.

2020-21:14 NURS 7040 Adult-Gero Acute Care 2 Practicum. Change in course description and prereq.

2020-21:15 NURS 7041 Adult-Gero Acute Care 3. Change in course description and prereq.

2020-21:16 NURS 7042 Adult-Gero Acute Care 3 Practicum. Change in course description and prereq.

2020-21:31-1 PHYT 8901 Change of workload and semester hours.

2020-21:31-2 MAT 6915. Change of course type.

2020-21:32 MAT 6920. Change of course type.

2020-21:33 MAT 6925. Change of course type.

2020-21:34 MAT 6940. Change of course type.

2020-21:35 MAT 6945. Change of prerequisites.

2020-21:36 MAT 6960. Change of workload.

2020-21:38 HHS 6962. Change of prerequisites.

**2020-21:59** CSCI 6970 *Biometrics.* Biometrics is an emerging and fast growing field that has found applications in a wide range of areas. This course will introduce major biometric techniques (face, fingerprint, voice and iris), focusing on the methods that have roots in computer vision, image processing, pattern recognition and machine learning. The course is designed to be project oriented. Student can choose a topic and develop it into a full project. Students who are interested in writing C++ codes and doing tests with OpenCV libraries are particularly encouraged to do so. Prereq.: CSCI 6901 or CSIS 3700 or FSCI 3716/L or permission of instructor. 3 s.h. (Change in prerequisite.).

### 2020-21:83 PSYC 6955 *Psychopathology.* The study of abnormal behavior with an emphasis placed on psychopathological conditions. Prereq.: enrollment in the School Psychology Program. 3 s.h. (change in prereq and semester hours.)

**2020-21:84** MATH 5835 *Introduction to Combinatorics and Graph Theory.* The pigeonhole principle; permutations, combinations, the binomial theorem; the inclusion-exclusion principle; recurrence relations; graphs and digraphs, paths and cycles, trees, bipartite graphs and matchings. Prereq.: C or better in either MATH 3715 or CSCI 3710 and C or better in Math 3720. 3 s.h. (change in prerquisite).

**2020-21:85** DATX 5896 *Data Analytics Project.* Individual research project culminating in a written report or paper utilizing predictive modeling techniques, visualization, and data management techniques. May be repeated once if the second project is fundamentally different in design or scope.. Prereq.: "C" or better in DATX 5805. 3 s.h. (change in course type.)

**2020-21:89** ACCT 6970 *Capstone Experience*. A culmination of learning experiences necessary for accounting professionals. An integrative case study project will be required. Program level assessment will be a component of this course, both in terms of technical knowledge and other program-level learning goals including written and oral communication. Prereq.: Permission of MAcc Director. 1 s.h. (Change to course description, prerequisite, hours and grading.)

2020-21:71 MBA 6970 *Global Business.* Economic, cultural, political and legal differences across countries create unique challenges in today's global business landscape. To become more effective managers in this global arena, participants will examine how these issues impact the management of finance, marketing, operations and human resources. 3 s.h. (Change of credit hours.)

2020-21:73 NURS 7017 *School Nurse Role Practicum.* Application of concepts, theories, and research from school nurse courses in a variety of settings. Prereq.: none. 1-5 s.h. (change to course description and prereq.)

2020-21:74 NURS 7018 *Nursing Curriculum Design.* Focus on nursing curriculum development, design, and implementation. Foundations of nursing curriculum, curriculum designs, and development of frameworks and learning strategies to achieve outcomes, and competencies in nursing education. Prereq.: none. 3 s.h. (change to course description and prereq.)

2020-21:75 NURS 7019 *Nursing Instructional Methods.* Theoretical foundations and analysis of teaching strategies in academic and clinical settings promoting critical thinking, clinical judgment, assessment techniques, and learning outcomes in a variety of nursing education and healthcare settings. Prereq.: none. 3 s.h. (change to course description and prereq.)

2020-21:76 NURS 7020 *Evaluation in Nursing Education.* Methods, frameworks, basic principles, and strategies for nursing educational evaluation, including assessment, designs, curriculum and program evaluation tools, agency accreditation processes,  and measurement tools of scoring and grading. Prereq.: none. 3 s.h. (change to course description and prereq.)

2020-21:77 NURS 7021 *Nurse Educator Role.* Examination of concepts, theories and research related to the nurse educator advanced practice role development including teaching, learning, technology, evaluation strategies, leadership, marketing skills, and nursing education practice in academic and health care delivery settings. Prereq.: none. 3 s.h. (change to course description, hours and prereq.)

2020-21:78 NURS 7022 *Nurse Educator Role Practicum.* Field experience and application of concepts, theories, research findings, teaching strategies, learning, technology, evaluation strategies, leadership, and marketing skills from nursing education courses in a variety of nursing education and healthcare settings. This practicum will consist of 150 hours and to be taken with NURS 7021. Prereq.: NURS 7018, NURS 7019, NURS 7020 and NURS 7021 3 s.h. (change in course prereq. and hours.)

### 2020-21:79 NURS 7038 *Adult Gerontology Acute Care 1 Practicum.* Supervised clinical practicum in an acute care facility Emphasis is placed on the APRN-patient/family relationship collaborating with the health care team and health information technology. Prereq.: NURS 7037, NURS 7039, NURS 7041. 3 s.h. (change in course description and hours.)

2020-21:96 CSIS 5838 *Graphics and Animation for Gaming*. Design and implementation of 3D computer games. Development of 3D characters, including surface creation and effects, skeletal and facial rigging, and motion and animation. Programming those characters in a 3D game engine, including scripting, level and game design, and game physics. Prereq.: CSIS 2605 or CSIS 2610 or CSIS 3737 3 s.h. (Change to prerequisite).

2020-21:97 INFO 5875 *Advanced Multimedia Authoring*. This course is a study of advanced multimedia authoring principles. Through assigned reading, lab exercises, and lectures, you will generate guiding principles of designing and developing effective multimedia materials. Additionally, advanced-scripting language concepts toward developing multimedia materials, integrating text, graphics, sound, and animation, will be presented. 3 hours lecture and 2 hours lab.Prereq.: INFO 3774 or INFO 3775 or INFO 3776 4 s.h. (Change to course description and prerequisite).

2020-21:99 MATL 7020 *Analytical Methods for Materials Science 2*. A laboratory course where the student will receive hands-on training with instruments commonly used in materials research. Instruments covered include light microscopes, scanning electron microscopes, transmission electron microscope, focused ion beam, X-ray photoelectron spectrometer, Auger spectrometer, X-ray microscope, and dynamic mechanical analyzer. (2 h. lecture / 3 h. lab) Prereq.: None 3 s.h. (Change to course description and semester hours).

2020-21:100 MATL 7010 *Analytical Methods for Materials Science 1*. A laboratory course where the student will receive hands-on training with instruments commonly used in materials research. Techniques covered include electrical response methods, spectroscopic methods, X-ray techniques, and thermal analysis and surface profiling techniques. (2 h. lecture / 3 h. lab). Prereq.: None 3 s.h. (Change to course description and semester hours).

2020-21:102 BIOL 5888 *Environmental Biotechnology*. This course provides an overview of environmental biotechnology, engineering fundamentals, theory and principles in application of biological treatment to solve environmental problems. Topics include relevant biological, chemical, and ecological processes, biological treatments of waste, land, and water. Environmental biotechnology is an essential tool to help humanity face enormous environmental health challenges, especially pollution, climate change, loss of habitat, and resulting threats to wildlife and human populations, their health outcomes and survival potential. This course is designed to summarize modern insights regarding evaluation and applications of environmental biotechnology. Prereq.: CHEM 3719 or CEEN 3736. 3 s.h. (Change to course description and semester hours).

2020-21:104 HHS 6932 *Health Care Administration*. This course focuses on the fundamental philosophy and techniques common to healthcare Administration. Students will develop skills related to the following broad healthcare management competencies: (1) communication and relationship management, (2) professionalism, (3) leadership, (4) knowledge of the healthcare system, and (5) business skills and knowledge. A key feature of this course is the use of a well-known simulation model call FlexSim. Students utilize a copy of the simulation model and detailed case studies of the simulation from major hospital systems across the US. Prereq.: Acceptance into MHHS Program. 3 s.h. (Change of course description).

2020-21:105 HHS 6935 *Clinical Informatics*. This course will provide Health and Human Services student with a comprehensive framework of Clinical informatics knowledge. It addresses how clinical informatics assists health care organizations, how information is used in clinical operations, and how information technologists interact with clinical stakeholders in provider, payer, and other healthcare organizations. Health care delivery applications include electronic health records, clinical information systems, Tele-health, patient safety, patient and community education, and care management. Students will analyze the informatics function and organizational relationships in their organizations. Prereq.: Current enrollment in the MHHS or MSN program, or with permission of the instructor. Senior nursing students may take with permission from the Nursing department and Graduate College. 3 s.h. (Change of course description).

2020-21:107 HHS 6955 *Health Care Quality in the Electronic Health Record*. This course presents a review of the Electronic Health Record and the US National Health Information Network. Structure of provider, payer, and other health care organizations along with the work flow in these types of organizations and their information system's needs. It addresses how informatics assists these organizations, how information is used in business and clinical operations, and how information technologists interact with business and clinical stakeholders in provider, payer, and other healthcare organizations. Students will analyze the informatics function and organizational relationships in their organizations. Prereq.: None. 3 s.h. (Change of course title).

2020-21:108 HHS 6960 *Health Education and Promotion*. Developing effective health promotion programs through a study of the history, philosophy, ethics, and values of health promotion. Prereq.: Admission to the MHHS program or permission of the instructor 4 s.h. (Change of course title, description and hours).

2020-21:112 HHS 6990 *Internship*. Supervised internship in selected health and human services facilities offering health and human services administration experience. Prereq.: Approval of advisor 2 s.h. (Change of course title, description and hours).

2020-21:115 HRS 8921 will replace PHYT 8921 (Health Sciences PhD program aligning courses with new course prefix).

2020-21:116 HRS 8935 will replace PHYT 8935 (Health Sciences PhD program aligning courses with new course prefix).

2020-21:117 HRS 8940 will replace PHYT 8940 (Health Sciences PhD program aligning courses with new course prefix).

2020-21:118 HRS 8941 will replace PHYT 8941 (Health Sciences PhD program aligning courses with new course prefix).

2020-21:119 HRS 8942 will replace PHYT 8942 (Health Sciences PhD program aligning courses with new course prefix).

2020-21:120 HRS 8962 will replace PHYT 8962 (Health Sciences PhD program aligning courses with new course prefix).

2020-21:121 HRS 8970 will replace PHYT 8970 (Health Sciences PhD program aligning courses with new course prefix).

2020-21:122 HRS 8990 will replace PHYT 8990 (Health Sciences PhD program aligning courses with new course prefix).

2020-21:123 HRS 8995 will replace PHYT 8995 (Health Sciences PhD program aligning courses with new course prefix).

2020-21:126 ART 5840B *Topics in Ancient Art: Roman Art and Architecture.* Topics in Ancient Art Roman Art and Architecture. The art and architecture of the ancient cultures of the Mediterranean region and the Near East. Topics vary by semester, and include Egypt, the Ancient Near East, Greece, and Rome. May be taken twice if content is different. Prereq.: ENGL1500 permission of instructor. 3 s.h. (Change of prerequisite.)

2020-21:134 CMST 6900 *Introduction to Graduate Study*. Orientation to teaching, learning, and research in the communication discipling for new graduate students. Prereq.: None. 3 s.h. (Change in semester hours.)

2020-21:140 MAT 6988 *Clinical Practicum 5*. Athletic Training students will continue to practice and hone their clinical skills in pharmacology, manual medicine, and radiology in the sports medicine field. Students will learn and identify these skills through direct immersion in the clinical environment. Students will work with a preceptor directly for this course. The purpose of this course is to review and evaluate clinical proficiencies required by the National Athletic Trainers’ Association for certification and our professional accreditation through CAATE. Prereq.: None. 2 s.h. (Change of semester hours)

2020-21:141 MAT 6995 *Clinical Practicum 6*. Athletic Training students will continue to practice and hone their clinical skills and knowledge as an entry-level athletic trainer. Students will learn and identify these skills through direct immersion in the clinical environment. Students will work with a preceptor directly for this course. The purpose of this course is to review and evaluate clinical proficiencies required by the National Athletic Trainers’ Association for certification and our professional accreditation through CAATE. Prereq.: None. 2 s.h. (Change of semester hours)

**Undergraduate Courses Approved for Swing Credit 2020-2021**

None.

**Graduate Credit Dropped from a Swing Course 2020-2021**

None

**New Graduate Programs/Certificates 2020-2021**

2020-21:62Graduate Certificate in Post Masters Graduate Certificate in Principal Certificate (Addition of a new post masters graduate certificate.)

2020-21:63 Graduate Certificate in Public Health (Addition of a new graduate certificate.)

2020-21:64 Graduate Certificate in Public Health-Research (Addition of a new graduate certificate.)

2020-21:65 Graduate Certificate in Public Health-Administration (Addition of a new graduate certificate.)

2020-21:136 Graduate Certificate in Superintendent Licensure. (Addition of a new Graduate Certificate.)

**Program Changes—Graduate Programs 2020-2021**

2020-21:3 Post-Master’s Adult-Gerontology Acute Care Nurse Practitioner. On line delivery, change to degree requirements, admission requirements

2020-21:4 Post-masters Family Nurse Practitioner Certificate Program. On line delivery, change to degree requirements, admission requirements

2020-21:26 Master of Science in Mathematics. Addition of online option.

2020-21:28 Master of Science in Education-Education Administration. Addition of online option and change of degree requirements.

2020-21:29 Doctor of Education. Addition of online option and change of degree requirements.

2020-21:87 Master of Accountancy. Addition of required course to better prepare students for course in Auditing CPA review. Change in credit hours and content to enhance coverage of topics. (Change of degree requirements.)

2020-21:101 Doctor of Philosophy in Material Science and Engineering. Adjustment to reflect changes to MATL 7010 and 7020 and clarification of research credit hour requirement. (Change of degree requirements.)

2020-21:127 Master of Health and Human Services. Reduce hours to completion to 30. Remove 3 UG courses for admission and decrease undergrad GPA to 2.7 for admission. (Change of degree requirements and admission requirements.)

2020-21:128 Master of Athletic Training. Additional clinical hours added. (Change of degree requirements requirements.)

2020-21:129 Master of Nursing, Nurse Education. Change to online delivery method and change credit hours and admission requirements. (Change of degree and admission requirements.)

2020-21:130 Certificate in Health Care Management. Change of certificate requirements to reflect previous course changes. (Change of certificate requirements.)

2020-21:131 Master of Nursing, Adult-Gerontology Acute Care Nurse Practitioner. Replacing NURS 6907 and 6908 with 6917 and 6918 (Change of degree requirements.)

2020-21:132 Master of Nursing, Family Nurse Practitioner. Replacing NURS 6907 and 6908 with 6917 and 6918 (Change of degree requirements.)

2020-21:133 Master of Art in Professional Communication. Adjust curriculum to accommodate changes in MKTG and PTW graduate curricula and elimination of two track options while requiring completion of CMST core courses leading to stronger communication theoretical foundation (Change of degree requirements.)

2020-21:135 Doctor of Education in Educational Leadership. The previously approved specializations within the degree are being assigned separate codes for recruiting, tracking and transcribing. (Change of degree requirements.)

2020-21:137 Master of Arts in Gerontology. Addition of an elective course. (Change of degree requirements.)

2020-21:138 Certificate in Health Care Management. Revision of requirements to reflect recent changes to course hours.(Change of certificate requirements.)