The Graduate AP&P Committee (GAPP) met on Monday, January 22, 2018 at 3:00 pm in the Belk Library, Room 421.

Members Present: John Abbott, Doris Bazzini, Mark Bradbury, Audrey Dentith, Dru Henson, Marie Hoepfl, Alecia Jackson, Nickolas Jordan, Victor Mansure, Gary McCullough, Kim McCullough, William Pollard, Max Poole, Ben Powell, Debbie Race, Rob Sanders, David Shows, Tracy Smith, Susan Staub, Sandy Vannoy, Eric Berry

Administrative Staff and Guests: Laura Padgett (Coordinator, GAPP), Rick Klima, Pam Kidder Ashely, Sandy Gagnon, Rose Mary Webb, Kevin Warner, Travis Triplett, Zack Murrell, Brad Johnson, Michael Briley

Absent: Ece Karatan, Scott Collier, James Douthit, Karen Fletcher, Phyllis Kloda, Dontrell Parson, Terry Rawls, Ray Williams

1. **CALL TO ORDER**

   At 3:07 pm, Chairperson Marie Hoepfl called the meeting to order.

   Guests were welcomed and asked to introduce themselves.

2. **APPROVAL OF MINUTES**

   **MOTION 1:** It was moved (Mansure) and seconded (Alecia Jackson) that the minutes of the November 20, 2017 GAPP meeting be approved. One abstention (Bazzini). **PASSED.**

3. **ANNOUNCEMENTS/FIOs**

4. **NEW BUSINESS**

   Curriculum Proposals:

   A. Curriculum Proposals:

      **Beaver College of Health Sciences**

      **Department of Communication Sciences and Disorders**

   G_HS_CSD_2017_7  Change the Graduate Bulletin description for the M.S. in Speech-Language Pathology program to include “Academic Standards for Retention” in Communication Sciences & Disorders
MOTION 1: There was a motion from the Curriculum Subcommittee to approve. The vote was taken. PASSED. See addendum.

Department of Health and Exercise Science

G_HS_HES_2017_4 Delete ES 5650 Theoretical and Practical Aspects of Strength & Conditioning (Motion from the floor required)

G_HS_HES_2017_5 Add ES 5651 Theoretical Principles of Strength and Conditioning

G_HS_HES_2017_6 Add ES 5652 Practical Concepts of Strength and Conditioning

G_HS_HES_2017_7 Add ES 5720 Motor Behavior for Sport and Performance

G_HS_HES_2017_8 Add ES 5730 Introduction to Sport Psychology in Professional Practice (Motion from the floor required)

G_HS_HES_2017_9 Update the POS for the MS Exercise Science Strength & Conditioning concentration (Motion from the floor required)

MOTION 2: There was a motion from the Curriculum Subcommittee to approve Proposals 5, 6, and 7. The vote was taken. PASSED.

Chairperson Hoepfl stated that Curriculum Subcommittee reviewed Proposals 4, 8 and 9 and had questions which resulted in returning them to the department for clarification/revision. The department was represented by Travis Triplett, who explained the proposal and answered the questions resulting from the Subcommittee’s review.

MOTION 3: A motion was made (Abbott) and seconded (Bazzini) to approve Proposal 4. The vote was taken. PASSED.

MOTION 4: A motion was made (Mansure) and seconded (K. McCullough) to approve Proposal 8. Travis Triplett and Rose Mary Webb confirmed that actions were taken to vet this proposal through the Department of Psychology, as requested by the Subcommittee. The request was made to strike “seminar” from the course description. The course type should be listed as “Lecture.” The vote was taken. PASSED.

MOTION 5: A motion was made (Bazzini) and seconded (Smith) to approve Proposal 9. Travis Triplett answered questions raised during the review by the Subcommittee. The vote was taken. PASSED.

College of Arts & Sciences

Department of Appalachian Studies

G_CAS_AS_2017_01 Change the POS for the Graduate Certificate in Appalachian Studies (GCERT_200A)
MOTION 6: There was a motion from the Curriculum Subcommittee to approve Proposal 1. Discussion ensued. A question was raised about delivery method of the program. Rob Sanders shared that the Bulletin does not indicate the delivery method. Because courses can change so rapidly it makes more sense not to put that information in the Bulletin. The motion was TABLED until the February 19 GAPP meeting.

Department of Biology

GU_CAS_BIO_2017_02 Change the semester offering of BIO 4571 (Plant-Insect Interactions in Terrestrial Ecosystems) and delete the dual-listed BIO 5571 course

MOTION 7: There was a motion from the Curriculum Subcommittee to approve. The vote was taken. PASSED.

Department of Languages, Literatures and Cultures

GU_CAS_LL_2017_09 Change the prerequisites for FRE 4565/FRE 5565 (Advanced French Expression)

G_CAS_LL_2017_10 Change LLC 5525 (Product of Learning) (Motion from the floor required)

G_CAS_LL_2017_11 Add FRE 5300 (Laughter in Text and Film / Histoires de rire)

G_CAS_LL_2017_12 Add FRE 5591 (The French Curriculum: Communication, Assessment, Technology Tools)

G_CAS_LL_2017_13 Add the cross-listed courses FRE 5045/SNH 5045(Comparative Romance Linguistics)

G_CAS_LL_2017_14 Change the POS for the French Graduate Certificate (GCERT_108A)

G_CAS_LL_2017_15 Change the POS for the Spanish Graduate Certificate (GCERT_111A)

G_CAS_LL_2017_16 Change the POS for the MA in Romance Languages, Spanish K-12 Teaching (M Level Licensure) concentration (MA 222D), and Spanish College Teaching concentration (MA 222E) to include SNH 5045

G_CAS_LL_2017_17 Change the POS for the MA in Romance Languages, French K12 Teaching (M Level Licensure) concentration (MA 222B), and French College Teaching concentration (MA 222C)
MOTION 8: There was a motion from the Curriculum Subcommittee to approve all proposals EXCEPT Proposal 10. A request was made to also exclude Proposal 12 due to a problem with the course description, as submitted. A suggestion was made that Proposal 10 should be vetted through the Council on Professional Education. Discussion ensued. The motion from the Curriculum Subcommittee was TABLED until the February 19 GAPP meeting.

Department of Mathematics

G_CAS_MAT_2017_01 Change MAT 5415 (Seminar in the Pedagogy of Mathematics) as follows: 1) Change the grading format from A/B/C/D/F to S/U, and 2) Remove the option to repeat for credit

G_CAS_MAT_2017_02 Change the grading format for MAT 5420 (Teaching Apprenticeship) from A/B/C/D/F to S/U.

MOTION 9: There was a motion from the Curriculum Subcommittee to approve. The vote was taken. PASSED.

Department of Physics and Astronomy

GU_CAS_PA_2017_04 Delete PHY 4620 (Optics); Change PHY 5620 (Optics) to remove dual listing and revise the prerequisite statement

G_CAS_PA_2017_06 Add PHY 5641 (Perturbations and Symmetry in Quantum Mechanics)

G_CAS_PA_2017_07 Change the MS in Engineering Physics, Professional Science Master's in Nanoscience for Advanced Materials concentration (MS_113D) (Motion from the floor required)

MOTION 10: There was a motion from the Curriculum Subcommittee to approve Proposals 4 and 6. The vote was taken. PASSED.

MOTION 11: A motion was made (Bazzini) and seconded (K. McCullough) to approve Proposal 7. Brad Johnson and Michael Briley answered questions raised by the Curriculum Subcommittee. The vote was taken. PASSED.

Department of Psychology

G_CAS_PSY_2017_02 Change the credit hours for PSY 5702 (Psychoeducational Assessment for Intervention I) from 3 to 4 and revise the course description

G_CAS_PSY_2017_03 Change the credit hours for PSY 5703 (Psychoeducational Assessment for Intervention II from 3 to 5 and change the course description
G_CAS_PSY_2017_04  Change the POS for the MA & Specialist in School Psychology program (SSP_125A, MA_125A)

MOTION 12: There was a motion from the Curriculum Subcommittee to approve Proposals 2, 3 and 4. The vote was taken. PASSED.

Department of Sociology
G_CAS_SOC_2017_08  Add SOC 5430 (Health Disparities)

G_CAS_SOC_2017_09  Change the Graduate Certificate in Gerontology Program (Program Code: GCERT_110A; CIP Code: 30.1101) (Motion from the floor required)

MOTION 13: There was a motion from the Curriculum Subcommittee to approve Proposal 8. The vote was taken. PASSED.

MOTION 14: A motion was made (K. McCullough) and seconded (Abbott) to approve Proposal 9. The vote was taken. PASSED.

College of Fine and Applied Arts

Department of Sustainable Technology and the Built Environment
GU_FAA_STBE_2017_15:  TEC 4758/5758 – Planning and Scheduling: In the Undergraduate and Graduate Bulletins change the course prerequisites.

GU_FAA_STBE_2017_20:  TEC 4729/5729 – Healthy Buildings: In the Undergraduate and Graduate Bulletins add a new dual-listed course. (Motion from the floor required)

GU_FAA_STBE_2017_22:  TEC 4618/5618 – Sustainable Building Design and In the Undergraduate and Graduate Bulletins change the course prerequisites.


GU_FAA_STBE_2017_29:  TEC 4615/5615 – Renewable Energy Project Development: Add a new course to the Undergraduate and Graduate Bulletins. (Motion from the floor required)

GU_FAA_STBE_2017_30:  TEC 4711/5711 – Computer Modeling of Renewable Energy: Delete these courses from the Undergraduate and Graduate Bulletins.
GU_FAAC_STBE_2017_32: TEC 4628/5628 – Solar Thermal Energy Technology: In the Undergraduate and Graduate Bulletin change course prerequisites.

GU_FAAC_STBE_2017_33: TEC 4700/5700 – Biofuels Technology: In the Undergraduate Bulletin change course prerequisites for TEC 4700.

GU_FAAC_STBE_2017_34: TEC 4607 – Wind and Hydro Power Technology: In the Undergraduate Bulletin change course prerequisites.

MOTION 15: There was a motion from the Curriculum Subcommittee to approve Proposals 15, 22, 26 and 30 – 34. The vote was taken. PASSED.

MOTION 16: A motion was made (Shows) and seconded (Dentith) to approve Proposals 20 & 29. The vote was taken. PASSED.

Department of Theatre and Dance


G_FAAC_TD_2017_4: DAN 4580 Gyrotonic: In the Graduate Bulletin add SSU 5580 (same as SSU 4580). In the Undergraduate Bulletin change the prefix from DAN to SSU 4580; update course description; and change schedule type to Studio. (Motion from the floor required)

G_FAAC_TD_2017_28: DAN 4480 & DAN 5580 – Pilates II: In the Undergraduate and Graduate Bulletin change the course prefix from DAN to SSU. (Motion from the floor required)

MOTION 17: There was a motion from the Curriculum Subcommittee to approve Proposal 1. The vote was taken. PASSED.

MOTION 18: A motion was made (Dentith) and seconded (Mansure) to approve Proposal 4. Discussion ensued. There wasn’t a copy of the undergraduate syllabus for the Curriculum Subcommittee to compare to the graduate syllabus to ensure “additional rigor” for graduate students taking the course. The motion was TABLED until the February 19 GAPP meeting.

MOTION 19: A motion was made (Mansure) and seconded (K. McCullough) to approve Proposal 28. Kevin Warner, Chair of the Department of Theatre and Dance, noted that the course title has been updated to “Pilates Apparatus.” The vote was taken. PASSED.

Hayes School of Music

G_MUS_MUS_2017_9 1) Add the course: MUS 5039. Advanced Orchestral Repertoire
for Bowed Strings. 2) Make this a required course for the Master of Music in Performance for the following concentrations: Violin (558U), Viola (558T), Cello (558C), and String Bass (558O). 3) For these concentrations, reduce the number of elective credit hours from 3 to 2.

MOTION 20: There was a motion from the Curriculum Subcommittee to approve Proposal 9. The vote was taken. PASSED.

Reich College of Education

Department of Curriculum & Instruction

G_COE_CI_2017_2  Delete the following BE courses: BE 5555 - Advanced Methods in Teaching Business and Marketing Subjects (3), BE 5565 - Curriculum Development in Business and Marketing Education (3) and BE 5575 - Analysis of Teaching Practices in Business and Marketing Education (2).

MOTION 21: There was a motion from the Curriculum Subcommittee to approve Proposal 2. The vote was taken. PASSED.

Department of Family & Child Studies

G_RCOE_FCS_2017_1  Delete the following graduate FCS courses: FCS 5700 - Advanced Curriculum in Family and Consumer Sciences (3), FCS 5705 – Evaluation in Family and Consumer Sciences (3) and FCS 5710 – Family and Consumer Sciences Communication Strategies (3)

GU_RCOE_FCS_2017_5  Delete the following dual listed FCS courses: FCS 4609/5609 – Seminar in Vocational Education (1)

MOTION 22: There was a motion from the Curriculum Subcommittee to approve Proposals 1 and 5. The vote was taken. PASSED.

Doctoral Program

G_COE_EDL_2017_01  Change a required course in the Expressive Arts Concentration in the doctoral program. Switch HPC 6390 and 6360 in the list of required or possible elective courses. HPC 6390 would be required and HPC 6360 would be listed as a possible elective.

G_COE_EDL_2017_02  Change the course description for EDL 7011 to reflect curricular changes.
G_COE_EDL_2017_03 Change the course description for EDL 7012 to reflect curricular changes.

G_COE_EDL_2017_04 Change the course title and course description for EDL 7165 to reflect curricular changes. Omit the prerequisite course and descriptor.

G_COE_EDL_2017_05 Delete EDL 7150 and add EDL 7175 to reflect curricular changes.

G_COE_EDL_2017_06 Change the POS in Educational Leadership to reflect the following changes: 1) Change the Admission Requirements for all concentrations in the Educational Leadership program EXCEPT the Education Administration (EdD_702D 13.0401) concentration; 2) Change the name of the EdD program GENERAL concentration (702C/13.0401) to INTERDISCIPLINARY STUDIES concentration (702X13.0401); 3) change the required courses for the proposed Interdisciplinary Studies concentration.

G_COE_EDL_2017_07 For all concentrations within the Doctor of Education in Educational Leadership program (702), change the required courses as follows: 1) delete the requirement for EDL 7110 Survey of Research Methodologies and EDL 7099 Professional Seminar from the doctoral core; 2) add one approved elective and EDL 7530 - 7549 Special Topics in Doctoral Research (3) as options to the list of courses to choose from.

MOTION 23: There was a motion from the Curriculum Subcommittee to approve Proposals 1 through 7. A request was made to amend the motion to exclude Proposals 6 and 7 because the revised versions were not submitted prior to the GAPP meeting for members to review. A vote was taken on the amended motion to approve Proposals 1 through 5. PASSED. Proposals 6 and 7 are tabled until the February 19 GAPP meeting.

Walker College of Business

Department of Marketing

G_COB_MKT_2017_01 Create new course MKT 5050 Marketing Analytics.

MOTION 24: There was a motion from the Curriculum Subcommittee to approve Proposal 1. The vote was taken. PASSED.
Department of CIS

G-COB-MSADA-2017-01 Change the program of study to clarify the pre-requisites for the MS in Applied Data Analytics (MSADA) program.

G-COB-MSADA-2017-02 Change the program of study to streamline capstone project and thesis course offerings into a Non-thesis and Thesis option for the MS in Applied Data Analytics (MSADA) program.

G-COB-MSADA-2017-03 Change the Program of Study for the MSADA to add existing course MBA5020 (International Experience) as an elective in each concentration. *(Motion from the floor required)*

G-COB-MSADA-2017-04 Add a Marketing Concentration to the MS in Applied Data Analytics program.

MOTION 25: There was a motion from the Curriculum Subcommittee to approve Proposals 1, 2 and 4. The vote was taken. PASSED. A note was made for the Graduate School and Registrar’s office to ignore pages 7 – 10 of the proposal for now.

MOTION 26: A motion was made (Pollard) and seconded (Shows) to approve Proposal 3. The vote was taken. PASSED. Lakshmi will submit an updated proposal that reflects which concentrations will include MBA 5020 International Experience as an elective.

B. Policy Proposals:
Chairperson Hoepfl shared that the Policy Subcommittee is working on a proposal regarding dual-listed courses. A draft of this policy was distributed by Max Poole to have an initial discussion within GAPP, but not to bring to a vote yet. Susan Staub, Chair of the Policy Subcommittee, shared that the committee first defined “dual-listed.” They were most concerned about there being additional rigor in the graduate courses. SACS requires dual-listed courses to be looked at as two separate courses. The committee has considered requiring a statement regarding academic rigor that would be attached to each graduate course description. Max reported that much thought went into the proposal thus far. Chairperson Hoepfl thanked the committee for their work. If GAPP members have comments on this draft policy proposal, they should reach out to Susan Staub within the next week.

4. OLD BUSINESS

5. DISCUSSION ITEMS

A. Chairperson Hoepfl explained that meetings of the Joint Committee of GAPP and UAPP will begin soon. The make-up of the committee will be the chairs of the two GAPP subcommittees, Julie Hayes, Debbie Race, and two voting members from each AP&P committee. She asked for two GAPP volunteers to serve. Victor Mansure and Kim McCullough volunteered. Two or three meetings will take place this spring.

B. Updates from the Graduate School
i. Max Poole shared that he will be sitting in on a call listening to the Board of Governors discuss the PsyD proposal. If it passes it will be the second doctoral program for Appalachian. It will also open the door for other professional doctorates to come forth.

ii. Rob Sanders shared that he has sent requests for nominations for faculty awards, student awards, and Provost and Chancellor fellowships. He will need volunteers for these review committees. A student satisfaction survey will be going out again soon. Rob has met with program directors and chairs about assistantship allocations. No budget for these has been received yet. He also received another QEP grant and would like to invite graduate faculty to participate in this study-away professional development opportunity. An announcement with more details is forthcoming.

5. **ADJOURNMENT**

Chairperson Hoepfl asked for adjournment of the meeting at 5:20 p.m.
G_HS_CSD_2017_7
Change the Graduate Bulletin description for the M.S. in Speech-Language Pathology program to include “Academic Standards for Retention” in Communication Sciences & Disorders

Academic Standards for Retention
Graduate students in Speech-Language Pathology are expected to abide by ASU’s code of Student Conduct and Academic Integrity Code and the Department’s Professional Dispositions, Behaviors and Essential Functions policy. The policy states that students must: (1) have the intellectual and academic capabilities sufficient to meet the curricular demands of the programs; (2) be proficient in oral and written English; and (3) possess certain dispositions, behaviors and essential functions that are expected of professionals engaged in clinical practice. Failure to meet the standards may result in dismissal from the program. The standards are fully described in the Speech-Language Pathology student handbooks (https://comdis.appstate.edu/students/student-handbooks-and-forms).

G_HS_HES_2017_4  Delete ES 5650 Theoretical and Practical Aspects of Strength & Conditioning

G_HS_HES_2017_5  Add ES 5651 Theoretical Principles of Strength and Conditioning

ES 5651-Theoretical Principles of Strength and Conditioning (2)
When offered: Fall
A comprehensive study of training theory and methods with an emphasis on the basic and advanced resistance training program design for multiple populations. Also included is a brief review of neuromuscular, musculoskeletal, endocrine, and bioenergetic aspects of exercise and training.

G_HS_HES_2017_6  Add ES 5652 Practical Concepts of Strength and Conditioning

ES 5652-Practical Concepts of Strength and Conditioning (2)
When offered: Spring
Application of theoretical principles towards understanding the development of hypertrophy, strength, power, speed, agility, and anaerobic capacity. Includes hands-on experience in lifts, drills, and testing procedures, as well as facility design and management.

G_HS_HES_2017_7  Add ES 5720 Motor Behavior for Sport and Performance

ES 5720-Motor Behavior for Sport and Performance (3)
When offered: Spring
Provides instruction and discussion in topics related to motor behavior as it pertains to sport and exercise performance. Topics will include peripheral and central nervous system control of movement, current and emerging models of motor control and motor learning, and advanced topics related towards the application of this material to strength and conditioning and athletic performance.
Add ES 5730 Introduction to Sport Psychology in Professional Practice (3) when offered: Spring

G_HS_HES_2017_8

An advanced course focused on applying basic theories on human behavior to the practice of sport psychology in professional settings. Emphasis will be placed on developing an understanding of the basics of human behavior in sport and physical activity settings and learning how to apply these theories to client interactions.

G_HS_HES_2017_9

Update the POS for the MS Exercise Science Strength & Conditioning concentration

Proposed Program of Study

Exercise Science - Strength and Conditioning Concentration, MS

Return to: Beaver College of Health Sciences

Program Code: MA_842D CIP

Code: 31.0505

Program of Study for the Master of Science in Exercise Science

Admission Requirements: Baccalaureate degree from an accredited college or university; complete application to the Graduate School; official general GRE exam scores; statement of career goal; the following courses or equivalents must be completed prior to formal admission into the program: Human Anatomy and Physiology (ES 2030, 4 hours); Exercise Physiology (ES 3002, 3 hours); Introduction to Biomechanics (ES 3550, 4 hours). This list may not include prerequisites for all elective courses. The applicant must also have two additional science courses. Prerequisites will be assessed at the discretion of the graduate program director.

To be considered for admission, applicants must meet or exceed the criteria for admission to the Graduate School. Meeting these criteria does not guarantee admission. Both qualitative and quantitative aspects of applications are reviewed by the program in comparison to the current applicant pool.

Location: On Campus

Course Requirements for the Master of Science in Exercise Science

Total Required (Minimum 36 Hours)

Required Courses (14 Hours)
Concentration Requirements (22 Hours)

E S 5060: Practicum: Strength and Conditioning (3)
E S 5555 - Advanced Nutritional Aspects of Exercise and Sports (3) E S 5623 - Exercise Physiology (4)

E S 5600 - Analysis of Sports Performance (3)
E S 5650 - Theoretical and Practical Aspects of Strength and Conditioning (3)
E S 5651: Theoretical Principles of Strength and Conditioning (2)
E S 5652: Practical Concepts of Strength and Conditioning (2)

E S 5710 - Biomechanics (3)
E S 5720: Motor Behavior for Sport and Performance (3)
E S 5730: Introduction to Sports Psychology in Professional Practice (3)

4 hours of graduate electives chosen with the advisor’s approval.

Choose One of the Following (6 Hours)

E S 5900 - Internship (1-12)
of
E S 5900 - Internship (1-12)
and
E S 5560 - Research Project (3)
of
E S 5999 - Thesis (2-6)

GU_CAS_BIO_2017_02 Change the semester offering of BIO 4571 (Plant-Insect Interactions in Terrestrial Ecosystems) and delete the dual-listed BIO 5571 course

PROPOSED:
BIO 4571 - Plant-Insect Interactions in Terrestrial Ecosystems (4)
When Offered: Fall, Even years
A study of the associations between insects and plants, using lecture, class discussions and laboratory exercises. Lecture topics include constraints imposed by plants on herbivorous insects and the strategies insects use to overcome them, pollination biology and ecology and the interplay between biotic and abiotic factors in determining interactions. Laboratory exercises are field-based mini-experiments leading to the development of an individual project with experimentation and paper presentation. Lecture three hours, laboratory three hours.
Prerequisites: BIO 1801 for non-Biology majors, BIO 1802 for Biology majors.
G_CAS_MAT_2017_01  Change MAT 5415 (Seminar in the Pedagogy of Mathematics) as follows: 1) **Change** the grading format from A/B/C/D/F to S/U, and 2) **Remove** the option to repeat for credit

MAT 5415 - Seminar in the Pedagogy of Mathematics (1)
When Offered: Spring
Topics from mathematical content, pedagogy, and epistemology are examined, such as current trends in mathematics education, alternative learning styles, teaching developmental and adult students, and teaching with technology. Graded on an S/U basis.

G_CAS_MAT_2017_02  **Change** the grading format for MAT 5420 (Teaching Apprenticeship) from A/B/C/D/F to S/U.

MAT 5420 - Teaching Apprenticeship (1)
When Offered: Fall, Spring
This course provides a supervised experience in teaching in the mathematical sciences through direct participation in a classroom situation. Each student will work closely with a university faculty mentor and will be actively engaged in instructional practices, such as the development of activities and assignments or other relevant experiences. This course may be repeated for a total credit of two semester hours. Graded on an S/U basis.

GU_CAS_PA_2017_04  **Delete** PHY 4620 (Optics); **Change** PHY 5620 (Optics) to remove dual listing and revise the prerequisite statement

PHY 5620 - Optics (4)
When Offered: Fall
A rigorous introduction to geometric and wave optics with applications including lasers, interferometers, spectroscopy, telescopes, fiber optics, and remote sensing. Basic electromagnetic wave theory is employed to describe the interaction of electromagnetic radiation with matter including absorption, dispersion, reflection, and scattering. Geometric optics is employed to study image formation by optical systems using both ray-tracing and matrix optics methods. Wave optics is used to study interference, diffraction, and coherence. This leads into a detailed lab-based unit dealing with interferometry and optical system alignment, with applications to optical component testing, spectral analysis of light sources, and coherence. The course also includes a semester synthesis project. Prerequisite: PHY 3001 (Analytical Methods in Physics) or equivalent with a grade of “C” (2.0) or higher, or permission of instructor. Lecture three hours, laboratory three hours.

G_CAS_PA_2017_06  **Add** PHY 5641 (Perturbations and Symmetry in Quantum Mechanics)

PHY 5641 - Perturbations and Symmetry in Quantum Mechanics (3)
When Offered: On Demand
An analytical study of perturbation theory and symmetry as applied to quantum mechanical systems. This is a non-relativistic course that is predominantly focused on techniques for obtaining solutions to Schrödinger’s equation for which standard analytical results are not possible. The implications and utility
of symmetry in quantum theory are also developed as appropriate to the subject matter. Topics may
include: Identical Particles, Quantum Statistical Mechanics, Time-Independent Perturbation Theory, the Variational Principle, Time-Dependent Perturbation Theory, Adiabatic Approximation and Berry’s Phase, and instructor-selected advanced topics: e.g. quantum computing, scattering, or an introduction to the Dirac Equation. 
Prerequisites: PHY 4640 or PHY 5640 or an equivalent course in quantum mechanics.

G_CAS_PA_2017_07 Change the MS in Engineering Physics, Professional Science Master's in Nanoscience for Advanced Materials concentration (MS_113D)

2018-2019 PROPOSED

Engineering Physics - Professional Science Master's in Nanoscience for Advanced Materials Concentration, MS

Program Code: 
MS_113D CIP Code: 
40.0801

Program of Study for the Master of Science in Engineering Physics

Admission Requirements: Baccalaureate degree in physics, astronomy or any science or related area such as mathematics, computer science or engineering from an accredited college or university; complete application to the Graduate School; official general GRE exam scores. To be considered for admission, applicants must meet the criteria for admission to the Graduate School. Meeting this condition does not guarantee admission.

Location: On Campus

Course Requirements for the Master of Science in Engineering Physics

Total Required (38 or 39 Hours 36-37 Hours)

Required Courses (10 Hours)

- PHY 5011 - Applied Physics Colloquium (0) (must be taken twice)
- PHY 5330 - Digital Electronics (4)
- PHY 5400 - Professional Skills (1)
• PHY 5405 - Graduate Seminar (1)
• PHY 5730 - Analog Systems (4)

Concentration Requirements (**28 or 29**26-27 Hours)

- PHY 5845 - Nanoscience and Technology (3)
- PHY 5860 - Physical Principles of Electron Microscopy (4)
- PHY 5900 - Internship (1-124)

Related Coursework (**7-8**6-7 Hours)

Choose 2 of the following 3 with approval of graduate program director:

- PHY 5740 - Sensors and Transducers (4)
- A course in solid state physics (3)
- PHY 5850 - Advanced Materials Science Laboratory (3)

Professional Core (12 Hours)

12 hours of Professional Core Courses approved by graduate program director:

- ENG 5520 - Technical Writing (3) or similar technical communications course

Graduate Courses (9 Hours)

- BUS 5xxx (3)
- MBA 5xxx (3)
- TEC 5149 - Entrepreneurship in Technology and Science (3)

Other Requirements for the MS in Engineering Physics

- **Thesis:** Optional
- **Proficiency:** Not required
- **Candidacy:** Required for thesis option; admission to candidacy is awarded upon approval of thesis committee and prospectus
- **Comprehensive:**
  - An oral defense of the thesis is required for the thesis option of Systems and Laboratory Automation.
  - For non-thesis option and other concentrations: A written and oral comprehensive examination is required.

- **Product of Learning:** Not required

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**G_CAS_PSY_2017_02**  Change the credit hours for PSY 5702 (Psychoeducational Assessment for Intervention I) from 3 to 4 and revise the course description

**PSY 5702 - Psychoeducational Assessment for Intervention I (4)**

When Offered: Fall

As the first in a two-course sequence, this course introduces students to the foundations of psychoeducational assessment, including psychometrics and measurement; legal, ethical, historical, family, and diversity issues; and various methods and models for assessing students within the school context. Students will demonstrate competency in the administration, scoring, and interpretation of results of the most commonly used tests of academic achievement and learn to integrate results into comprehensive written reports with associated recommendations for interventions. Emphasis will be placed on the application of assessment data to address academic needs. Lecture three hours, laboratory two hours.

Prerequisite: admission to the School Psychology graduate program.

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**G_CAS_PSY_2017_03**  Change the credit hours for PSY 5703 (Psychoeducational Assessment for Intervention II) from 3 to 5 and change the course description

**PSY 5703 - Psychoeducational Assessment for Intervention II (5)**

When Offered: Spring

As the second in a two-course sequence, this course extends students’ knowledge and skills in school-based assessment for intervention. Students will learn about historical and theoretical foundations of intelligence as well as characteristics of and methods of assessing various educational disabilities. Students will demonstrate competency in the administration, scoring, and interpretation of results of the most commonly used measures of cognitive abilities and adaptive behaviors and learn to integrate assessment data from multiple measures into comprehensive written reports with associated recommendations for interventions. Emphasis will be placed on the integration of assessment skills and methods attained during PSY 5702 - Psychoeducational Assessment for Intervention I (4), as well as the application of assessment data to address instructional problems. Lecture four hours, laboratory two hours.

Prerequisites: PSY 5702

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**G_CAS_PSY_2017_04**  Change the POS for the MA & Specialist in School Psychology program (SSP_125A, MA_125A)
Proposed Program of Study

School Psychology, SSP/MA

Program Code: SSP_125A, MA_125A  CIP Code: 42.2805

Program of Study for the Master of Arts/Specialist in School Psychology

Admission Requirements: Baccalaureate degree from an accredited college or university; complete application to the Graduate School; official general GRE exam scores; completion of approved courses in General Psychology, Research Methods, and Statistics, or demonstrated competence in these areas; submission of a questionnaire, which addresses the applicant’s rationale and preparation for pursuing graduate training in School Psychology. Applicants who make the first cut will be invited for an interview.

To be considered for admission, applicants must meet the criteria for admission to the Graduate School. Meeting these criteria does not guarantee admission.

Candidates will be subject to criminal background checks (CBCs) prior to participation in required training experiences in the public schools. Continued enrollment in the program requires that CBCs reveal no criminal offenses that would preclude employment in the public schools of North Carolina.

Location: On campus

Course Requirements for the Master of Arts and Specialist in School Psychology
Total Required (Minimum 72-67 Hours)

Required Courses (72-67 Hours)

- **PSY 5015 - Research Seminar** (1) \(1+1+1+1 = 34\)
- **PSY 5020 - Research Methods in Psychology** (3)
- **PSY 5040 - Applied Psychological Research and Evaluation** (3)
- **PSY 5555 - Advanced Educational Psychology** (3)
- **PSY 5702 - Psychoeducational Assessment for Intervention I** (34)
- **PSY 5703 - Psychoeducational Assessment for Intervention II** (35)
- **PSY 5704 - Emotional/Behavioral Assessment for Intervention** (3)
- **PSY 5705 - Psychotherapy: Foundations and Ethics** (3)
- **PSY 5713 - Child Psychopathology** (3)
- **PSY 5717 – Assessment and Intervention Planning for Special Populations** (3)
• **PSY 5902 - Practicum II: School Psychology (3)**
• **HPC 6620 - School-Based Consultation (3)**
• or
• **PSY 6620 - School-Based Consultation (3)**
• **PSY 6621 – Advanced Consultation (3)**
• **PSY 6900 - Internship (1-6) (6 in Fall + 6 in Spring =12)**
• **C I 5591 - Advanced Curriculum Design in Elementary Education (3)**
• **HPC 5110 - Multicultural Counseling (3)**
• **S W 5010 – Human Behavior and the Social Environment I (3)**

**Other Requirements for the MA/SSP in School Psychology**

• **Thesis:** Not required
• **Proficiency:** Statistics proficiency met by completion of **PSY 5020**
• **Candidacy:** Required; see the program director for specific timeline and requirements for admission to candidacy
• **Comprehensive:** Each candidate will earn a score on the Praxis Series School Psychologist Examination that equals or exceeds the score required for licensure, by the NC Department of Public Instruction, as a School Psychologist
• **Product of Learning:** Not required

**SOC 5430: Health Disparities (3)**
When Offered: Summer
This course offers students and health professionals a study of health disparities, its underlying causes, and methods for potential solutions. It includes examining theories and research that considers the historical, cultural, and social dimensions related to health disparities between different groups of people and disparate environmental areas.

**Appalachian State University 2018-2019 PROPOSED Graduate Bulletin**

**Gerontology, Aging, Health and Society Graduate Certificate**

[Print this Page]
Program Code:
GCERT_110AxxxX CIP
Code: 30.1101

Program of Study for the Graduate Certificate in Gerontology Aging, Health and Society

Admission Requirements: Baccalaureate degree from an accredited college or university; complete application to the Graduate School; writing sample describing the applicant’s relevant academic, work or volunteer experience, and the applicant’s reasons for applying to the program. Some requirements may be waived for applicants already accepted into an Appalachian State University master’s degree program.

Location: Online

Course Requirements for the Graduate Certificate in Gerontology Aging, Health and Society

Total Required (Minimum 12 Hours)

Required Courses (12 Hours)

- SOC 5400 - Sociology of Adult Development and Aging (3)
- SOC 5420 - Health Care and Aging (3)

Two At least one of the following:

- SOC 5420 - Health Care and Aging (3)
- SOC 5430 - Health Disparities (3)
- SOC 5550 - Housing for Older Adults (3)
- SOC 5630 - Programs and Services for Older Adults (3)

One Elective course if needed to reach 12 hours

Pre-Approved Elective Courses

Many pre-approved elective courses have prerequisites or require that you be enrolled in a specific program. Students should ensure that they either
meet the prerequisites, are enrolled in the required program, or receive permission of the instructor to take the course.

- **BIO 5563** - Biology of Aging (3)
- **CSD 5850** - Adult Neurogenic Communication Disorders (3)
- **P A 5270** - Not-for-Profit Organizations (3)
- **P A 5271** - Grants Strategies and Preparation (3)
- **FCS 5551** - Families in Later Life (3)
- **GHY 5400** - Planning Theory and Process (3)

or

- **PLN 5400** - Planning Theory and Process (3)
- **HCM 5570** - Financial Management for Health Organizations I (3)
- **HCM 5680**: Management and Human Resources in Health Organizations (3)
- **HPC 5680** - Counseling the Aging (3)
- **HPC 5110** - Multicultural Counseling (3)
- **NUR 5070** - Contemporary Issues in Nursing (3)
- **NUR 5150** - Advanced Health Assessment for Adults (3)
- **NUR 5250** - Nursing Research for Evidence-Based Practice (3)
- **NUT 5210** - Nutrition for Older Adults (3)
- **PSY 5562** - Psychology of Adulthood and Aging (3)
- **R M 5560** - Leisure and Aging (3)
- **SOC 5900** - Internship: Field Experience (3-12)
Additions to Pre-Approved Elective Courses

HCM 5570 - Financial Management for Health Organizations I (3)

When Offered: Fall
This course is the introductory health care finance course for MHA students. The course focuses on the most important accounting and financial management principles and concepts relevant to health organizations. It should be noted that the course is the first course in a two-course health care finance sequence. As such, it is designed primarily to provide knowledge of fundamental principles. The application of this knowledge will be the focus of the second financial management course (HCM 5575).
Prerequisite: Admission to the MHA program or permission of the instructor.

HCM 5680 - Management and Human Resources in Health Organizations (3)

When Offered: Fall
This course provides a foundation of knowledge and skills applicable to the current issues in health care management with an emphasis on human resources management. Students will be exposed to key management principles and the laws, issues and concepts related to HR management. The course will use a combination of informative lectures and case study analyses to provide students with the tools and insight needed to explore a variety of health care management and human resource management issues.
Co-requisite or Prerequisite: HCM 5210 or permission of the instructor.

NUR 5070 - Contemporary Issues in Nursing (3)

When Offered: Fall, Summer Session
This course enables students to analyze contemporary issues in nursing; including concepts related to quality improvement, patient safety, global health, rural health, healthcare policy, organization, technology in nursing, and financing, the global healthcare environment and perspectives, informatics, health disparities, and interprofessional practice. An emphasis will be placed on a systematic approach to the economic, legal and political factors that influence health care.
Prerequisite: Admission to the MSN program.
2018-2019 PROPOSED

Department of Sociology

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Amy Dellinger Page, Chair  pagead@appstate.edu

Gerontology—Aging, Health and Society

Bradley Nash, Jr., Graduate Program Director
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The Gerontology—Aging, Health and Society program prepares students for careers requiring graduate-level knowledge and skills in the field of aging in areas relating to aging populations and their health in contemporary society. The program emphasizes knowledge about the psychological, sociological, and biological—and related processes of normal aging as they affect the diverse and rapidly growing population of older adults in the state and the nation coupled with a focus on the variety of social factors that influence health outcomes. Theory, research and professional career preparation are emphasized, as is knowledge and understanding of public policies implemented through federal and state programs that pertain to older populations in general and the delivery of health care in particular.

Students are encouraged to develop their own unique aging-related area and health-related areas of specialization. (Recent creative examples include the aging of the inmate population and the growth of eating disorders among middle-aged women.) Faculty assist students with their research, which can lead to conference presentations and/or publications.

The Graduate Certificate can be completed in either one or two years. It is designed to develop or supplement aging-related knowledge and skills for (1) students in other master's degree programs; (2) students "testing the waters", that is, who are considering but do not yet want to commit to a master's degree program; (3) employees who desire a Gerontology graduate credential, but who do not want or need a master's degree; (4) others with a personal or professional interest in aging and elders.

Graduates of the Graduate Certificate program have found jobs in both the public and private sectors, ranging from direct work with older persons to managerial/administrative positions. The program is approved by the NC Division of Health Service Regulation to offer the Administrator-in-Training Program for students who want to obtain assisted living facility administrator licensure.

The Graduate Certificate program can be completed 100% online so students can schedule coursework and assignments around their job, family and other obligations. There is no requirement to be logged on at a particular day or time, nor is there any online course requirement to come to the main campus. Other elective courses are offered only on campus.
GU_FAA_STBE_2017_15:  TEC 4758/5758 – Planning and Scheduling: In the Undergraduate and Graduate Bulletins change the course prerequisites.

TEC 5758 - Planning and Scheduling (3)
When Offered: Fall, Spring
This course introduces students to the complex process of planning for construction projects. The course covers project planning and scheduling, determining and leveling project resources, estimating, budgeting, and cost control for construction projects. Special attention will be given to the use of specialized scheduling software for construction management activities.
[Dual-listed with TEC 4758.]

GU_FAA_STBE_2017_20:  TEC 4729/5729 – Healthy Buildings:
In the Undergraduate and Graduate Bulletins add a new dual-listed course.

TEC 5729 - Healthy Buildings (3)
When Offered: Fall
An occupant-focused approach to building science that emphasizes the health and well-being of occupants as a fundamental requirement for building design, construction and operation. Course material and field exercises will include building functions and associated design elements, potential issues and solutions in four areas of Indoor Environmental Quality (thermal comfort, noise, lighting, indoor air quality), and building evaluation and diagnostic techniques for healthy building assessment. Content mastery and applied practice at the graduate level is expected. Lecture two hours, laboratory three hours.
[Dual-listed with TEC 4728.]

GU_FAA_STBE_2017_22:  TEC 4618/5618 – Sustainable Building Design and Construction:
In the Undergraduate and Graduate Bulletins change the course prerequisites.

TEC 5618 - Sustainable Building Design and Construction (3)
When Offered: Fall, Spring
This course introduces students to the concepts and best practices related to sustainable building design and construction. Course topics include green building certification programs, sustainable building design software, high performance construction practices, resource efficient material selection, sustainable site planning, water efficiency, indoor air quality, and passive solar design. The course also explores a variety of unconventional building techniques and building materials such as straw bale, adobe, cob, and geodesics. Other topics discussed include sustainable community design, low impact development, composting, recycling, and grey water systems.
[Dual-listed with TEC 4618.]

TEC 5608 - Photovoltaic System Design and Construction (3)
When Offered: Fall, Spring
This course will introduce students to the basic concepts, tools, techniques and materials needed to design and construct systems that convert solar resources into electricity with photovoltaic (PV) technologies. Students will have the opportunity to learn how to assess the solar resources available at a particular site and how that information can be used to properly design PV systems. They will also have the opportunity to learn how to design and construct complete code compliant photovoltaic systems and become familiar with contemporary trends and products. The course will include classroom and “hands-on” design, construction and possibly some field trip experiences outside of class. Lecture two hours, laboratory two hours.

GU_FAAC_STBE_2017_29:  
TEC 4615/5615 – Renewable Energy Project Development:
Add a new course to the Undergraduate and Graduate Bulletins.)

TEC 5615 – Renewable Energy Project Development (3)
When Offered: Spring
This course will explore the policy, market, and economic context for the development of energy projects with a focus on renewable energy, energy efficiency, and emerging technology trends. Specific topics may include regulatory oversight roles, energy and related environmental attribute markets, power purchase agreements, tax-based and other incentives, and implications of emerging technologies and business models on power markets. Emphasis will be placed on students achieving a fundamental understanding of the regulatory and market context for energy projects and the practical application of this knowledge. Content mastery and analytical problem solving at the graduate level is expected. [Dual listed with TEC 4615.]

GU_FAAC_STBE_2017_30:  
TEC 4711/5711 – Computer Modeling of Renewable Energy: Delete these courses from the Undergraduate and Graduate Bulletins.

GU_FAAC_STBE_2017_32:  
TEC 4628/5628 – Solar Thermal Energy Technology:
In the Undergraduate and Graduate Bulletin change prerequisites.

TEC 5628 - Solar Thermal Energy Technology (3)
When Offered: Fall, Spring
This course will introduce students to the basic concepts, tools, materials and techniques needed to convert solar energy into heat. Specific technologies to be studied include solar cookers, solar dryers, solar water heaters, solar water pasteurization/distillation, solar greenhouses/coldframes, and some house heating systems. Students will develop skills in the use of tools, materials, and processes which effectively and efficiently capture and convert the sun’s energy into thermal energy. The course will include traditional classroom and “hands-on” design, construction and testing activities. Content mastery and applied practice at the graduate level is expected. Lecture two hours, laboratory two hours. [Dual-listed with TEC 4628.]

GU_FAAC_STBE_2017_33:  
TEC 4700/5700 – Biofuels Technology: In the Undergraduate Bulletin change course prerequisites for TEC 4700.
TEC 5700 - Biofuels Technology (3)
When Offered: Fall, Spring
An examination of evolving biofuel technologies such as biodiesel, alcohol, cellulose products, and methane which are being developed to displace depleting fossil fuels (diesel, gasoline, natural gas, and coal). This course will introduce students to the basic concepts, tools, techniques, and materials needed to assess, design, and construct biofuels technology systems. Coursework will include multimedia presentations, lectures, discussions, films, field trips, homework, guest-speakers, and laboratory activities. Topics include: internal combustion engine technology, biodiesel chemistry and physical properties, combined heat-power systems, materials compatibility, by-products, closed-loop designs, energy balance, life cycle assessment, ASTM specifications, fuel analysis, feedstocks, biofuels and agriculture, biofuels in developing countries, ethanol, cellululosic ethanol, biogas and landfill gas, and eco-industrial models. Content mastery and applied practice at the graduate level is expected. Lecture two hours, laboratory two hours.
[Dual-listed with TEC 4700.]

GU_FAA_STBE_2017_34: TEC 4607 – Wind and Hydro Power Technology: In the Undergraduate Bulletin change course prerequisites. In the Graduate Bulletin change the prerequisites for TEC 5607 - Wind and Hydro Power Technology

TEC 5607 - Wind and Hydro Power Technology (3)
When Offered: Fall, Spring
This course will introduce students to the basic concepts, tools, techniques and materials needed to design and construct systems that convert wind and hydro resources into electricity. Students will have the opportunity to learn how to measure these renewable resources and to estimate the power that could be produced from them. They will also have the opportunity to learn how to design and construct complete renewable electricity systems and become familiar with many contemporary products used in renewable electricity systems. The course will include classroom and “hands-on” design, construction and possibly some field trip experiences outside of class. Content mastery and applied practice at the graduate level is expected. Lecture two hours, laboratory two hours.
[Dual-listed with TEC 4607.]


SSU 5500 - Independent Study (1-4)
When offered: Fall, Spring

SSU 5530-5549 - Selected Topics (1-4)
When offered: Fall, Spring

GU_FAA_TD_2017_28: DAN 4480 & DAN 5580 – Pilates II: In the Undergraduate and Graduate Bulletin change the course prefix from DAN to SSU. (Motion from the floor required)

SSU 5480 – Pilates Apparatus (2)
When Offered: Fall, Spring
A second level study of the Pilates method, based on the concepts of centering, concentration, control, precision, breath and flow. This course will introduce the equipment and the apparatus developed by Joseph H. Pilates. May be repeated one time for credit.

Prerequisite: SSU 2480, or permission of the instructor.

[G_MUS_MUS_2017_9]

1) Add the course: MUS 5039. Advanced Orchestral Repertoire for Bowed Strings. 2) Make this a required course for the Master of Music in Performance for the following concentrations: Violin (558U), Viola (558T), Cello (558C), and String Bass (558O). 3) For these concentrations, reduce the number of elective credit hours from 3 to 2.

MUS 5039. Advanced Orchestral Repertoire for Bowed Strings (1).S.(Odd-numbered years)
Instruction of string orchestral literature commonly encountered in the professional orchestral setting plus orchestral solo repertoire. Presents information for professional performance application procedures, including correct presentation of letters of inquiry, preparation of a professional dossier, preparation of musical material, and gathering an ample library of the specific printed music that most orchestral auditions will require. Several mock auditions are experienced and participation in at least one professional orchestral audition is required.

[For the catalog copy, see the attached Program of Study for action items #2 and #3.]

**Proposed Bulletin 2018-2019**

**Changes proposed are in red font and only for the following concentrations: Violin (558U), Viola (558T), Cello (558C), and String Bass (558O)**

Course Requirements for the Master of Music in Performance

**Total Required (Minimum 32 to 35 Hours)**

Credit hours vary by concentration

**Required Courses (23 Hours)**

- AMU 6xxx: Applied Music (8)
- MUS 5006 - Philosophy of Music (3)
- MUS 5170 - Professional and Scholarly Practices for Musicians (3)
- MUS 5013 - History of Musical Style (3)
- MUS 5018 - Applied Area Literature (1-3) - topics depend upon concentration (3)
- MUS 5600 - Analytical Techniques (3)

**Concentration Requirements (9 Hours)**

Semester hours required for the degree (minimum 32):
- MUS 5100 - Performance Ensemble (1) (1+1+1+1=4)
- MUS 5998 - Master of Music in Performance Recital (1-3) (2)
Other Requirements for the MM in Music Performance

- **Thesis:** Required for Composition Concentration.
- **Proficiency:** All students are required to demonstrate proficiency in music theory, aural skills, and music history/literature prior to being recommended for Admission to Candidacy. Students entering the concentration in vocal performance (558V) must demonstrate proficiency or prove by academic transcript one year of study of French and German, undergraduate diction, piano proficiency, Alexander Technique, and one of the following courses: Survey of Song Literature, Opera History and Literature, or Vocal Pedagogy. Vocal students not demonstrating proficiency in these subjects may be required to take appropriate courses prior to being recommended for Admission to Candidacy in the second year of study.
- **Candidacy:** Required; see the program director for specific timeline and requirements for admission to candidacy
- **Comprehensive:** Written and oral examinations will be given.
- **Product of Learning:** None required

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**G_COE_CI_2017_2**  
Delete the following BE courses: BE 5555 - Advanced Methods in Teaching Business and Marketing Subjects (3), BE 5565 – Curriculum Development in Business and Marketing Education (3) and BE 5575 - Analysis of Teaching Practices in Business and Marketing Education (2).

**G_RCOE_FCS_2017_1**  
Delete the following graduate FCS courses: FCS 5700 - Advanced Curriculum in Family and Consumer Sciences (3), FCS 5705 – Evaluation in Family and Consumer Sciences (3) and FCS 5710 – Family and Consumer Sciences Communication Strategies (3)

**GU_RCOE_FCS_2017_5**  
Delete the following dual listed FCS courses: FCS 4609/5609 – Seminar in Vocational Education (1)

**G_COE_EDL_2017_01**  
Change a required course in the Expressive Arts Concentration in the doctoral program. Switch HPC 6390 and 6360 in the list of required or possible elective courses. HPC 6390 would be required and HPC 6360 would be listed as a possible elective.

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**Proposed POS**
- EDL 7900 – Internship (3-6) 3 or 6 hours
- HPC 6360 - Therapy and the Expressive Arts (3)
- HPC 6390 - Current Issues in Expressive Arts (3)
- HPC 6370 - Intermodal Expressive Arts (3)

**Additional Requirements (6 or 9 Hours)**
In addition, students will select 6 or 9 hours of additional courses from the following (or other graduate-level courses with the approval of the Doctoral Director):
• HPC 5860 - Dreamwork: Clinical Methods (3)
• HPC 5870 - Creative Process, Movement, and Therapy (3)
• HPC 6340 - Ecotherapy (3)
• HPC 6350 - Body/Mind (3)
• HPC 6355 - Mindfulness Based Counseling (3)
• HPC 6360 Therapy and Expressive Arts
• HPC 6365 - Expressive Arts Summer Institute (3-9)
• HPC 6366 - EXA Child/Adolescents (3-6)
• HPC 6380 - Therapeutic Writing (3)
• HPC 6390 - Current Issues in Expressive Arts Therapy (3)

**G_COE_EDL_2017_02**  Change the course description for EDL 7011 to reflect curricular changes.

EDL 7011 Multi-disciplinary Seminar on Emerging Issues I (3)
When offered: On demand
A multi-disciplinary seminar in which students engage with questions that are central to understanding the connections and interplay between epistemology, research paradigms, and methodology in educational research. The course examines a contemporary topic in the field through an investigation of a number of research paradigms. The course focuses on the aspects of epistemology and theoretical perspectives as connected to methodology and methods to guide students in their future research. The aim of the course is not to advance a particular methodological or theoretical approach, but rather to cultivate a critical awareness of many positions that inform inquiry.

**G_COE_EDL_2017_03**  Change the course description for EDL 7012 to reflect curricular changes.

EDL 7012 - Multi-disciplinary Seminar on Emerging Issues II (3)
When offered: On demand
The course provides students with developing knowledge around various theoretical frameworks, philosophical concepts, and their methodological implications and applications in educational research. This course is designed on the premise that it is important to have a deep understanding of the epistemological and ontological stances that drive research methodologies in order to be aware of why certain questions are asked and why particular techniques are chosen and used. With that in mind, the course readings will introduce doctoral students to feminist, queer, poststructuralist, postcolonial, and posthumanist methodologies in educational research, and these methodologies will be situated within the theoretical frameworks that made them possible.

**G_COE_EDL_2017_04** Change the course title and course description for EDL 7165 to reflect curricular changes. Omit the prerequisite course and descriptor.

EDL 7165 Applied Quantitative Methods in Education I (3)
When offered: On demand
This is an applied course intended to allow doctoral students to gain experience in designing and evaluating educational research using quantitative methods. Students will examine design issues in research, formulate research questions, create data sets or explore existing data sets, and use a variety of descriptive and inferential procedures to answer research questions, interpret results and compose the results in the style of professional educational research. A wide variety of examples from the professional literature will be reviewed to assist students in understanding the relationships between the questions studied and the methodologies applied. Students will also develop basic proficiency in using SPSS or other tools to analyze data.
Delete EDL 7150 and add EDL 7175 to reflect curricular changes.

Create new course MKT 5050 Marketing Analytics.

**MKT 5050 - Marketing Analytics (3)**
When Offered: On Demand
An examination of the techniques and procedures involved in analyzing marketing information for the development of marketing strategy. Analytical procedures that will assist managers in the areas of pricing, revenue management, forecasting, identifying customer needs, choice analysis, customer lifetime value, allocation of marketing resources, market segmentation, new product development, retailing and advertising will be reviewed.
Prerequisites: MBA 5420

Change the program of study to clarify the pre-requisites for the MS in Applied Data Analytics (MSADA) program.

See POS below.

Change the program of study to streamline capstone project and thesis course offerings into a Non-thesis and Thesis option for the MS in Applied Data Analytics (MSADA) program.

See POS below.

Change the Program of Study for the MSADA to add existing course MBA5020 (International Experience) as an elective in each concentration. (Motion from the floor required)

See POS below

Add a Marketing Concentration to the MS in Applied Data Analytics program.

Program Code: MS_304D; CIP Code: 11.0802

**Program of Study for the Master of Science in Applied Data Analytics – Interdisciplinary Concentration**

**Admission Requirements:** Baccalaureate degree from an accredited college or university; [complete application to the Graduate School](https://example.com); official general GMAT or GRE exam scores; evidence of knowledge in statistics, financial accounting, economics, and domain specific knowledge for the concentration corporate finance, marketing, and organizational behavior through course work, work experience or completion of the accelerated prerequisite program before taking graduate course work in those subjects.

To be considered for admission, applicants must meet the criteria for admission to the Graduate School. Meeting these criteria does not guarantee acceptance.
Location: On Campus

Course Requirements for the Master of Science in Applied Data Analytics

Total Required (Minimum 36 Hours)

Required Courses (27 Hours)

Core courses (21 hours) + Thesis or Non-Thesis option (6 hours)

Core Courses (21 hours)

- CIS 5630 - Data Management (3)
- CIS 5830 - Security, Privacy and Ethical Issues in Analytics (3)
- CIS 5860 - Applied Analytics Project (1-6)
- CIS 5450 - Project Management and Visualization (3)
- CIS 5750 - Web Analytics (3)
- ECO 5740 - Forecasting and Time Series Models (3)
- MBA 5200 - Problem Analysis and Quantitative Methods (3)
- MBA 5230 - Fundamentals of Business Analytics (3)
- MBA 5820 - Executive Skills (0) Full-time and part-time students must enroll for three semesters; dual-degree students must enroll for two semesters.

Thesis or Non-Thesis option (6 hours)

- CIS 5860 - Applied Analytics Project (1-6)
- MBA 5999 - Thesis (1-6)

Concentration Requirements (9 Hours)
Choose 9 hours from the following list; other course options require permission form the program director and permission of the home department for the course.

- **BIO 5777 - Biostatistics (4)**
- **C S 5710 - Data Mining and Knowledge Discovery in Scientific Data (3)**
- **GHY 5812 - Advanced GIS (3)**
- **MAT 5340 - Introduction to Operations Research (3)**
- **MBA 5870 - Analytical Models for Supply Chain Management (3)**
- **MBA 5680 - Six Sigma, Lean and Quality Management (3)**
- **MBA 5999 - Thesis (1-6)**
- **MBA 5020 - International Experience (3)**
  (Focus of experience - Analytics)

Program Code: MS_304B, CIP Code: 11.0802

**Program of Study for the Master of Science in Applied Data Analytics – Supply Chain Concentration**

**Admission Requirements:** Baccalaureate degree from an accredited college or university; [complete application to the Graduate School](#); official general GMAT or GRE exam scores; evidence of knowledge in statistics, financial accounting, economics, and domain specific knowledge for the concentration corporate finance, marketing, and organizational behavior through course work, work experience or completion of the accelerated prerequisite program before taking graduate course work in those subjects. To be considered for admission, applicants must meet the criteria for admission to the Graduate School. Meeting these criteria does not guarantee acceptance.

**Location:** On Campus

**Course Requirements for the Master of Science in Applied Data Analytics**

**Total Required (Minimum 36 Hours)**

**Required Courses (27 Hours)**

*Core courses (21 hours) + Thesis or Non-Thesis option (6 hours)*

**Core Courses (21 hours)**

- **CIS 5630 - Data Management (3)**
- **CIS 5830 - Security, Privacy and Ethical Issues in Analytics (3)**
- **CIS 5860 – Applied Analytics Project (1-6)**
**CIS 5450 - Project Management and Visualization (3)**
**CIS 5750 - Web Analytics (3)**
**ECO 5740 - Forecasting and Time Series Models (3)**
**MBA 5200 - Problem Analysis and Quantitative Methods (3)**
**MBA 5230 - Fundamentals of Business Analytics (3)**
**MBA 5820 - Executive Skills (0)**

Full-time and part-time students must enroll for three semesters; dual-degree students must enroll for two semesters.

**Thesis or Non-Thesis option (6 hours)**
**CIS 5860 - Applied Analytics Project (1-6) MBA 5999 - Thesis (1-6)**

**Concentration Requirements (9 Hours)**

**MBA 5220 - Operations and Supply Chain Management (3)**

Choose Two from the List Below (6 Hours)

Other electives may be chosen with approval of the program director.
**MBA 5250 - Strategic Sourcing and Logistics Management (3)**
**MBA 5680 - Six Sigma, Lean and Quality Management (3)**
**MBA 5870 - Analytical Models for Supply Chain Management (3)**

MBA5020 International Experience (3)
*(Focus of experience – Supply Chain/Analytics)*

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Program Code: MS_304C; CIP Code: 11.0802

**Program of Study for the Master of Science in Applied Data Analytics – Sustainability Concentration**

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**Admission Requirements:** Baccalaureate degree from an accredited college or university; **complete application to the Graduate School**; official general GMAT or GRE exam scores; evidence of knowledge in statistics, financial accounting, economics, and domain specific knowledge for the concentration corporate finance, marketing, and organizational behavior through course work, work experience or completion of the accelerated prerequisite program before taking graduate course work in those subjects.

To be considered for admission, applicants must meet the criteria for admission to the Graduate School. Meeting these criteria does not guarantee acceptance.

**Location:** On Campus

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**Course Requirements for the Master of Science in Applied Data Analytics**
Total Required (Minimum 36 Hours)

Required Courses (27 Hours)

Core courses (21 hours) + Thesis or Non-Thesis option (6 hours)

Core Courses (21 hours)

CIS 5630 - Data Management (3)
CIS 5830 - Security, Privacy and Ethical Issues in Analytics (3)
CIS 5860 - Applied Analytics Project (1-6)
CIS 5450 - Project Management and Visualization (3)
CIS 5750 - Web Analytics (3)
ECO 5740 - Forecasting and Time Series Models (3)
MBA 5200 - Problem Analysis and Quantitative Methods (3)
MBA 5230 - Fundamentals of Business Analytics (3)
MBA 5820 - Executive Skills (0)

Thesis or Non-Thesis option (6 hours)

CIS 5860 - Applied Analytics Project (1-6) MBA 5999 - Thesis (1-6)

Concentration Requirements (9 Hours)

MBA 5080 - Sustainable Business for a Global Economy (3)
Select Two from the Following (6 Hours)

Choose 6 hours from the list below; other electives may be chosen with approval of the program director.

ACC 5240 - Sustainability Accounting and Reporting (3) or MBA 5240 - Sustainability Performance Assessment (3)
BIO 5777 - Biostatistics (4)
ECO 5621 - Environmental Economics and Policy (3)
ECO 5660 - Benefit-Cost Analysis (3)
GHY 5812 - Advanced GIS (3)
MBA 5999 - Thesis (1-6)

(Focus of experience – Sustainability/Analytics)
gram Code: MS_304?, CIP Code: 11.0802

Program of Study for the Master of Science in Applied Data Analytics – Marketing Concentration

Admission Requirements: Baccalaureate degree from an accredited college or university; complete application to the Graduate School; official general GMAT or GRE exam scores; evidence of knowledge in statistics, economics, and domain specific knowledge for the concentration through course work, work experience or completion of the accelerated prerequisite program before taking graduate course work in those subjects. To be considered for admission, applicants must meet the criteria for admission to the Graduate School. Meeting these criteria does not guarantee acceptance.

Location: On Campus

Course Requirements for the Master of Science in Applied Data Analytics

Total Required (Minimum 36 Hours)

Required Courses (27 Hours)
Core courses (21 hours) + Thesis or Non-Thesis option (6 hours)

Core Courses (21 hours)

CIS 5630 - Data Management (3)
CIS 5830 - Security, Privacy and Ethical Issues in Analytics (3)
CIS 5450 - Project Management and Visualization (3)
CIS 5750 - Web Analytics (3)
ECO 5740 - Forecasting and Time Series Models (3)
MBA 5200 - Problem Analysis and Quantitative Methods (3)
MBA 5230 - Fundamentals of Business Analytics (3)

MBA 5820 - Executive Skills (0) Full-time and part-time students must enroll for three semesters; dual-degree students must enroll for two semesters.

Thesis or Non-Thesis option (6 hours)

CIS 5860 - Applied Analytics Project (1-6)
MBA 5999 - Thesis (1-6)
Program Code: MS_304?, CIP Code: 11.0802

Program of Study for the Master of Science in

1 Required course (3 hours)
MBA 5420: Marketing Strategy and Applications (3)

Choose Two from the List Below (6 Hours)

Other electives may be chosen with approval of the program director.

MKT 5050  Marketing Analytics (3) *(Note: Subject to MKT proposal approval)*
MKT 5550  International Marketing (3)
MKT 5610  Consumer Behavior (3)
MBA 5020  International Experience (3) (Topic related to Marketing/Marketing Analytics)

MBA 5820 - Executive Skills (0) Full-time and part-time students must enroll for three semesters; dual-degree students must enroll for two semesters.

Thesis or Non-Thesis option (6 hours)

CIS 5860 - Applied Analytics Project (1-6)
MBA 5999 - Thesis (1-6)
gram Code: MS_304?, CIP Code: 11.0802

Program of Study for the Master of Science in Applied Data Analytics – Healthcare Concentration

Admission Requirements: Baccalaureate degree from an accredited college or university; complete application to the Graduate School; official general GMAT or GRE exam scores; evidence of knowledge in statistics, economics, and domain specific knowledge for the concentration through course work, work experience or completion of the accelerated prerequisite program before taking graduate course work in those subjects. To be considered for admission, applicants must meet the criteria for admission to the Graduate School. Meeting these criteria does not guarantee acceptance.

Location: On Campus

Course Requirements for the Master of Science in Applied Data Analytics

Total Required (Minimum 36 Hours)

Required Courses (27 Hours)
Core courses (21 hours) + Thesis or Non-Thesis option (6 hours)

Core Courses (21 hours)

- CIS 5630 - Data Management (3)
- CIS 5830 - Security, Privacy and Ethical Issues in Analytics (3)
- CIS 5450 - Project Management and Visualization (3)
- CIS 5750 - Web Analytics (3)
- ECO 5740 - Forecasting and Time Series Models (3)
- MBA 5200 - Problem Analysis and Quantitative Methods (3)
- MBA 5230 - Fundamentals of Business Analytics (3)
- MBA 5820 - Executive Skills (0) Full-time and part-time students must enroll for three semesters; dual-degree students must enroll for two semesters.

Thesis or Non-Thesis option (6 hours)

- CIS 5860 - Applied Analytics Project (1-6)
- MBA 5999 - Thesis (1-6)
Program Code: MS_304?, CIP Code: 11.0802

Program of Study for the Master of Science in

1 Required Course:
HCM 5210  Foundations of the US Healthcare System (3)

Choose Two from the List Below (6 Hours)

Other electives may be chosen with approval of the program director.
HCM 5700  Healthcare Informatics (3)
HCM 5720  Healthcare Analytics (3)
HCM 5590  Performance Improvement concepts and applications in healthcare (3)

MBA 5820 - Executive Skills (0) Full-time and part-time students must enroll for three semesters; dual-degree students must enroll for two semesters.

Thesis or Non-Thesis option (6 hours)

CIS 5860 - Applied Analytics Project (1-6)
MBA 5999 - Thesis (1-6)
Program Code: MS_304?, CIP Code: 11.0802

Program of Study for the Master of Science in Applied Data Analytics – Computer Science Concentration

**Admission Requirements:** Baccalaureate degree from an accredited college or university; complete application to the Graduate School; official general GMAT or GRE exam scores; evidence of knowledge in statistics, economics, and domain specific knowledge for the concentration through course work, work experience or completion of the accelerated prerequisite program before taking graduate course work in those subjects.

To be considered for admission, applicants must meet the criteria for admission to the Graduate School. Meeting these criteria does not guarantee acceptance.

**Location:** On Campus

**Course Requirements for the Master of Science in Applied Data Analytics**

**Total Required (Minimum 36 Hours)**

**Required Courses (27 Hours)**
- Core courses (21 hours) + Thesis or Non-Thesis option (6 hours)

**Core Courses (21 hours)**

- **CIS 5630 - Data Management (3)**
- **CIS 5830 - Security, Privacy and Ethical Issues in Analytics (3)**
- **CIS 5450 - Project Management and Visualization (3)**
- **CIS 5750 - Web Analytics (3)**
- **ECO 5740 - Forecasting and Time Series Models (3)**
- **MBA 5200 - Problem Analysis and Quantitative Methods (3)**
- **MBA 5230 - Fundamentals of Business Analytics (3)**
- **MBA 5820 - Executive Skills (0)**

*Full-time and part-time students must enroll for three semesters; dual-degree students must enroll for two semesters.*

**Thesis or Non-Thesis option (6 hours)**

- **CIS 5860 - Applied Analytics Project (1-6)**
- **MBA 5999 - Thesis (1-6)**
1 Required course (3 hours)
gram Code: MS_304?, CIP Code: 11.0802
CS 5245 Data Programming (3)

Program of Study for the Master of Science in
Choose Two from the List Below (6 Hours)

Other electives may be chosen with approval of the program director.
CS 5710 Data Mining and Knowledge Discovery in Scientific Data (3)
CS 5720 Scientific Computing with Visualization (3)
CS 5435 High Performance Database Systems (3)
CS 5569 Human Computer Interface (3)
CS 5570 Design and Analysis of UI (3)
CS 5740 Digital Image Processing (3)

MBA 5820 - Executive Skills (0) Full-time and part-time students must enroll for three semesters; dual-degree students must enroll for two semesters.

Thesis or Non-Thesis option (6 hours)
CIS 5860 - Applied Analytics Project (1-6)
MBA 5999 - Thesis (1-6)