UWGC Report for December 2020

FOR ACTION:

1. **DEPARTMENT: English**
   NEW COURSE
   Course: ENGL 880
   Rationale: This course is being proposed as a new course for the Composition and Applied Linguistics doctoral program in the English Department. Because the academic job market continues to be challenging for recent doctoral students, and because of the importance of writing for publication for both job market success and success throughout their academic careers, this offering will strengthen our program and offer our doctoral students an advantage. It will also better prepare them for writing their dissertations.

   Summary:

Course Title	Writing for Publication
Number of Credits	Class Hours per Week:3 Lab Hours: Credits:3
Prerequisites	None
Catalog Description	Provides a thorough introduction to writing for publication. The main outcome of this course is to produce a manuscript to submit for publication in an academic journal by the end of the course. The course will prepare students to write for publication by focusing in three directions: the writer, the writing, and the field. Focusing on themselves as writers, students will develop effective writing and revision processes, set goals, and develop time management strategies. Focusing on the craft of writing, students will learn about rhetorical moves, genre features, and language choices necessary for publication. From the field, students will learn about the publication process, what audiences expect, and key aspects of writing for publication such as establishing a clear purpose, offering contributions, and building on previous work.

2. **DEPARTMENT: Mathematics and Computer Science**

NEW COURSE
Course: MAED 618
Rationale: The course is being proposed as part of the M.Ed. in Mathematics Education Program. This course provides teachers with the opportunity to learn about how the brain works when it comes to learning mathematics. This is a topic that is not often addressed in depth in many teacher preparation programs.

Summary:

Course Title	Mathematics and Cognition
Number of Credits	Class Hours per Week:3 Lab Hours:0 Credits:3
Prerequisites	Enrolled in the Master of Education in Mathematics Education or instructor permission.
Catalog Description	Familiarizes K-12 teachers with how the brain learns mathematics. Covers topics including cognitive mechanisms for learning mathematics, factors that contribute to learning and difficulties with learning, and instructional strategies for the preschool through adolescent brain.

DEPARTMENT: Mathematics and Computer Science
NEW COURSE
Course: MAED 698
Rationale: This course is being proposed to allow students in the M. Ed Mathematics Education program to implement a teaching strategy in their own classroom under the supervision of a university professor who has expertise in that topic. The course will also provide students an opportunity to share their finds in a presentation or publication format.

Summary:

Course Title	Supervised Internship
Number of Credits	Class Hours per Week:3 Lab Hours:0 Credits:3
Prerequisites	Enrolled in the Master of Education in Mathematics Education

Catalog Description	Provides a professional work experience in a cooperating school district under the supervision of designated public school personnel, subject to review and evaluation by a university faculty member.

DEPARTMENT: Mathematics and Computer Science
PROGRAM REVISIONS
Program: Master of Education Mathematics Education
Rationale: The program is being revised to add two new courses and to change the prefix of two existing courses. The catalog description change is to use the correct wording for the specializations within the program.

Summary:

Current Catalog Description:	**Proposed Catalog Description:**
The Master of Education in Mathematics Education is ideal for elementary, middle, and secondary school teachers. Its purpose is to provide an opportunity for graduate students to increase their knowledge of mathematics and pedagogy, as well as to become aware of research and innovations in mathematics education. Upon completion of the program, graduate students will be prepared to serve as leaders of mathematics education in their school districts or to pursue a doctoral degree in mathematics education. Completion of this degree meets the requirements for Level II certification. The program consists of 36 credits in four broad areas: Education and Educational Research (6 credits), Mathematics Education Core (12 credits), Mathematics Education Content (12 credits), and Mathematics Education Electives (6 credits). The program consists of two tracks – one track in Secondary Mathematics Education and one track in Elementary and Middle School Mathematics Education.	The Master of Education in Mathematics Education is ideal for elementary, middle, and secondary school teachers. Its purpose is to provide an opportunity for graduate students to increase their knowledge of mathematics and pedagogy, as well as to become aware of research and innovations in mathematics education. Upon completion of the program, graduate students will be prepared to serve as leaders of mathematics education in their school districts or to pursue a doctoral degree in mathematics education. Completion of this degree meets the requirements for Level II certification. The program consists of 36 credits in four broad areas: Education and Educational Research (6 credits), Mathematics Education Core (12 credits), Mathematics Education Content (12 credits), and Mathematics Education Electives (6 credits). The program consists of two specializations– one specialization in Secondary Mathematics Education and one specialization in Elementary and Middle School Mathematics Education.

Current Program	Proposed Program
MEd in Mathematics Education **I. Education and Educational Research** (6 cr.) GSR 615 - Elements of Research Credits: 3 One course from: EDEX 569 - Education of Persons with Emotional/Behavioral Disorders, Learning Disabilities, or Brain Injury Credits: 3 EDEX 578 - Education of Persons with Intellectual/Developmental Disabilities and Physical/Multiple Disabilities Credits: 3 EDEX 650 - Exceptional Children and Youth Credits: 3 EDEX 750 - Assessment for Instructional Planning for Students with Autism Spectrum Disorders Credits: 3 EDEX 751 - Instructional Interventions and Methods for Students with Autism Spectrum Disorder Credits: 3 EDEX 752 - Assessment of Persons with Disabilities Credits: 3 EDSP 577 - Assessment of Student Learning Credits: 3 EDSP 704 - Advanced Educational Psychology Credits: 3 EDSP 746 - Learning and Instruction Credits: 3 EDSP 747 - Psychology of Human Development Credits: 3 EDSP 748 - Advanced Studies in Behavioral Problems Credits: 3 **II. Mathematics Education Core** (12 cr.) MAED 650 - Curriculum and Instruction in Mathematics Education Credits: 3 MAED 652 - Differentiated Instruction in Mathematics Education Credits: 3 MAED 654 - Teaching of Problem Solving in Mathematics Education Credits: 3 MAED 660 - Survey of Research in Mathematics Education Credits: 3 **III. Mathematics Education Electives** (6 cr.) Select two courses from: MAED 559 - Technology-Related Topics in Mathematics Credits: 3 MAED 616 - Writing in Mathematics Education Credits: 3 ~~ELMA~~ 681 - Special Topics Credits: 3	**MEd in Mathematics Education** **I. Education and Educational Research** (6 cr.) GSR 615 - Elements of Research Credits: 3 One course from: EDEX 569 - Education of Persons with Emotional/Behavioral Disorders, Learning Disabilities, or Brain Injury Credits: 3 EDEX 578 - Education of Persons with Intellectual/Developmental Disabilities and Physical/Multiple Disabilities Credits: 3 EDEX 650 - Exceptional Children and Youth Credits: 3 EDEX 750 - Assessment for Instructional Planning for Students with Autism Spectrum Disorders Credits: 3 EDEX 751 - Instructional Interventions and Methods for Students with Autism Spectrum Disorder Credits: 3 EDEX 752 - Assessment of Persons with Disabilities Credits: 3 EDSP 577 - Assessment of Student Learning Credits: 3 EDSP 704 - Advanced Educational Psychology Credits: 3 EDSP 746 - Learning and Instruction Credits: 3 EDSP 747 - Psychology of Human Development Credits: 3 EDSP 748 - Advanced Studies in Behavioral Problems Credits: 3 **II. Mathematics Education Core** (12 cr.) MAED 650 - Curriculum and Instruction in Mathematics Education Credits: 3 MAED 652 - Differentiated Instruction in Mathematics Education Credits: 3 MAED 654 - Teaching of Problem Solving in Mathematics Education Credits: 3 MAED 660 - Survey of Research in Mathematics Education Credits: 3 **III. Mathematics Education Electives** (6 cr.) Select two courses from: MAED 559 - Technology-Related Topics in Mathematics Credits: 3 MAED 618: Mathematics and Cognition: 3 MAED 616 - Writing in Mathematics Education Credits: 3

~~ELMA~~ 795 - Thesis Credits: 3 A course from Category IV Credits: 3 **IV**. Mathematics Education Content (12 cr) Students in the Elementary and Middle Level Specialization select from Option I. Students in the Secondary Mathematics Specialization select from Option II. Option I MAED 517 - Probability and Statistics for Elementary/Middle Level Teachers Credits: 3 MAED 520 - Patterns and Functions for Elementary/Middle Level Teachers Credits: 3 MAED 556 - Geometry for Elementary/Middle Level Teachers Credits: 3 MAED 561 - Discrete Mathematics for Elementary/Middle Level Teachers Credits: 3 MAED 571 - Algebra for Elementary/Middle Level Teachers Credits: 3 MAED 617 - Teaching Proportional Reasoning Credits: 3 Option II MAED 611 - Algebra for Secondary Teachers Credits: 3 MAED 612 - Geometry for Secondary Teachers Credits: 3 MAED 613 - Probability and Statistics for Secondary Teachers Credits: 3 MAED 614 - Pre-calculus and Discrete Math for Secondary Teachers Credits: 3 MAED 617 - Teaching Proportional Reasoning Credits: 3 **Total 36 cr.**	MAED 681 - Special Topics Credits: 3 MAED 698 – Supervised Internship: 3 MAED 795 - Thesis Credits: 3 A course from Category IV Credits: 3 **IV**. Mathematics Education Content (12 cr) Students in the Elementary and Middle Level Specialization select from Option I. Students in the Secondary Mathematics Specialization select from Option II. Option I MAED 517 - Probability and Statistics for Elementary/Middle Level Teachers Credits: 3 MAED 520 - Patterns and Functions for Elementary/Middle Level Teachers Credits: 3 MAED 556 - Geometry for Elementary/Middle Level Teachers Credits: 3 MAED 561 - Discrete Mathematics for Elementary/Middle Level Teachers Credits: 3 MAED 571 - Algebra for Elementary/Middle Level Teachers Credits: 3 MAED 617 - Teaching Proportional Reasoning Credits: 3 Option II MAED 611 - Algebra for Secondary Teachers Credits: 3 MAED 612 - Geometry for Secondary Teachers Credits: 3 MAED 613 - Probability and Statistics for Secondary Teachers Credits: 3 MAED 614 - Pre-calculus and Discrete Math for Secondary Teachers Credits: 3 MAED 617 - Teaching Proportional Reasoning Credits: 3 **Total 36 cr.**

DEPARTMENT: Mathematics and Computer Science
COURSE REVISIONS
Course: MAED 557
Rationale: The course is being revised to change the pre-requisite from a particular undergraduate course taught at IUP to one that states students need to be enrolled in the Master of Education in Mathematics Education. The prefix is being changed so that all courses in the Master of Education in Mathematics Education have the same prefix. The catalog description is being revised to include reference to middle level mathematics concepts which are covered in the course.

Summary:

Current Prefix: ELMA	**Proposed Prefix:** MAED
Current Course Title: Introduction to Number Theory	**Proposed Course Title:** Introduction to Number Theory
Current Prerequisite(s): MATH 152 or equivalent.	**Proposed Prerequisite(s):** Enrolled in the Master of Education in Mathematics Education
Current Catalog Description: Introduction to topics in number theory, including basic operations and properties of integers; divisibility properties of integers; modular arithmetic and congruence's; diophantine equations; interesting relationships among numbers; applications of number theory in elementary and middle school mathematics.	**Proposed Catalog Description:** Introduces topics in number theory, including basic operations and properties of integers; divisibility properties of integers; modular arithmetic and congruence's; diophantine equations; interesting relationships among numbers; applications of number theory in elementary and middle school mathematics.

DEPARTMENT: Mathematics and Computer Science
COURSE REVISIONS
Course: MAED 558
Rationale: The course is being revised to change the pre-requisite from an undergraduate course taught at IUP to one that states students need to be enrolled in the Master of Education in Mathematics Education. The prefix is being changed so that all courses in the Master of Education in Mathematics Education have the same prefix. The proposal is also requesting the change of method of instruction to distance education.

Summary:

Current Prefix: ELMA	**Proposed Prefix:** MAED
Current Course Title: Introduction to Logic and Logical Games	**Proposed Course Title:** Introduction to Logic and Logical Games
Current Prerequisite(s): MATH 152 or equivalent.	**Proposed Prerequisite(s):** Enrolled in the Master of Education in Mathematics Education
Current Catalog Description:	**Proposed Catalog Description:**

Introduction to some basic ideas, terminology, and notation of logic. Topics considered: symbolic logic, with special emphasis on algebra of propositions; applications of Boolean algebra, such as algebra of sets and switching circuits; introduction to quantification theory and its value in determining validity of mathematical arguments, inference schemes, and logical puzzles; and consideration of other topics in logic suitable for a K-8 mathematics curriculum.	Introduces the basic ideas, terminology, and notation of logic as it appears in the elementary and middle level mathematics curriculum. Considers topics including symbolic logic, with special emphasis on algebra of propositions; applications of Boolean algebra, such as algebra of sets and switching circuits; introduction to quantification theory and its value in determining validity of mathematical arguments, inference schemes, and logical puzzles; and consideration of other topics in logic suitable for a K-8 mathematics curriculum.

3. **DEPARTMENT: Biology**
   COURSE REVISION
   COURSE: BIOL 525
   Rationale:
   This revision is being submitted to address two principal concerns: 1) This course has no Senate-approved syllabus or proposal in the I-WIKI, and could not be located in the Biology Department files as a hard copy. This revision is being submitted to establish an up-to-date catalog description and set of stated learning objectives that reflect a modern approach to the field. 2) To add a DE option to the course to enhance course offering flexibility to our enrolled IUP students; and build on our strategic efforts to expand graduate course offerings to students enrolled at sister PASSHE universities.

   Summary:

Current Catalog Description:	**Proposed Catalog Description:**
A comprehensive survey of the classes of Amphibia and Reptilia, including their classification, structure, origin, evolution, phylogenetic relationships, distribution, and natural history. Special emphasis is placed on the herpetofauna of Pennsylvania.	Introduces the scientific study of amphibians, reptiles, turtles, and crocodilians, including the taxonomy, phylogenetic relationships, evolutionary history and fossil record, structure and development, natural history, and conservation of each group. Provides field-based exercises and/or field trips as part of the laboratory, which may also include specimen examination and identification, guest speakers, and discussions of both classic and recent scientific literature in herpetology.

DEPARTMENT: Biology
NEW COURSE
Course: BIOL 551
Rationale: This course is proposed to offer dual-listed graduate component to the advanced undergraduate course BIOL 451 Evolutionary Biology. Graduate students will complete additional coursework focused on analytical methods, applied analyses, and interpreting the scientific literature, and will use this course to prepare them for associated thesis research and/or more advanced coursework.

Summary:

Course Title	Evolutionary Biology
Number of Credits	Class Hours per Week: 2 Lab Hours: 3 Credits: 3
Prerequisites	None
Catalog Description	Presents the study of evolution and evolutionary biology, including the history of evolutionary theory, natural selection, microevolutionary and macroevolutionary processes, and the phylogenetic history and classification of life on earth. Focuses on learning current laboratory methods in population-level and phylogenetic analysis, presenting and leading peer discussions of important and current research in the field.

4. **DEPARTMENT: Criminology and Criminal Justice**
   VARIABILITYI OF DELIVERY (VOD)
   PROGRAM: Ph.D. in Criminology and Criminal Justice
   Rationale: The Department of Criminology and Criminal Justice submitted the INSPIRE Phase 1 Program Response Document in November 2019 in association with a review of the Department's Criminology Ph.D. program (CRIM Ph.D.). The response provided by the INSPIRE review included the following statement: "Continue but the committee strongly recommends a different delivery model so as to attract students that will find online or hybrid models attractive and may be more interested in tuition scholarships than GA monies."

   In response to the INSPIRE committee recommendation for the CRIM Ph.D. program, our department has reviewed doctoral programs across the US. Currently, there is only one Ph.D. program in Criminology and one Doctorate in Criminal Justice (D.C.J) program that are fully online, NOVA Southeastern and California University of PA respectively. Both of these programs are regarded as weaker programs in our discipline

largely because they are perceived as merely providing professional credentials rather than a rigorous doctoral program of study. In fact, the D.C.J. program at California University of PA is a two-year, part-time online program that does not include a dissertation project requirement.

By its very nature, the video conference capabilities that we are proposing might open the market to students who prefer a synchronous class over commuting to Indiana. The VOD specifying synchronous video-conferencing would be unique; our research did not identify any other doctoral program that does this routinely in our discipline. Because our face-to-face classes are in Indiana, it yields limited interest among working adults across the larger Pittsburgh metropolitan region because of the distance to our Indiana campus. Adding synchronous, remote access for doctoral classes opens the opportunity to recruit students who might live outside of Indiana or have commitments that make commuting to Indiana challenging.

Our faculty is well-versed in using different modalities for teaching; we have offered our MA program to cohorts of online-only students since 2009. We understand the needs of graduate students who are not on campus (many of whom are employed full time in professional careers). The department has embraced our online MA students and has encouraged them to become active in extra-curricular activities that provide additional experiences and opportunities for mentorship. Similar strategies would be used to ensure the success of any doctoral student who does not regularly attend classes physically in Indiana. In recent years, many doctoral students have engaged in their dissertation research away from campus after completing coursework and entering the workforce. Our faculty commitment to ensuring the completion of degree requirements with appropriate mentorship for all students would be maintained.

The synchronous teleconference delivery of classes will require a few additional resources. Several classrooms at IUP are equipped for video conferencing but based on the availability of these classrooms, additional equipment might need to be installed to ensure greater availability of appropriately equipped classrooms. This proposed change in delivery will require no additional faculty or instructional time.

FOR INFORMATION:

1. The following courses were approved by the UWGC to be offered as a distance education course:
    - ENGL 880: Writing for Publication
    - MAED 618: Mathematics and Cognition
    - MAED 557: Introduction to Number Theory
    - MAED 558: Introduction to Logic and Logical Games
    - NURS 951: Quantitative Research
    - NURS 953: Research Seminar I
    - BIOL 525: Herpetology
    - ALS 805: Curriculum Evaluation
    - BIOL 551: Evolutionary Biology

2. The following programs/courses have been approved to be place into Moratorium:
    - KHSS 641: Administration of Aquatic Programs
    - M.S. in Applied Mathematics – Community College Track
    - Preparing Future Faculty
    - COMM 609: Innovation in E-Learning
    - COMM 590: Improving Professional Practice in Instructional Settings
    - COMM 591: Improving Professional Practice in Instructional Settings
    - COMM 600: Instructional Design and Development