

GRADUATE COUNCIL MEMBERSHIP 2009-2010

Samuel Adu-Poku	Art	F&PA College Graduate Studies
Stephen Ausmann	Dana School of Music	F&PA Graduate Program Director
Bob Beebe	EFRTL	Educ. Graduate Program Director
Marty Cala	Mechanical & Industrial Engineering	STEM Graduate Program Director
Randy Hoover	Teacher Education	Educ. At-Large
Patty Hoyson	Nursing	H&HS College Graduate Studies
Ken Miller	Counseling & Special Education	Educ. College Graduate Studies
Dennis Morawski	Social Work	H&HS Graduate Program Director
Tom Oder	Physics & Astronomy	STEM College Graduate Studies
J. Rajendran Pandian	Management	WCBA College Graduate Studies
Brad Shellito	Geography	CLASS College Graduate Studies
Stephanie Tingley	English	CLASS Graduate Program Director
(vacant)		WCBA Graduate Program Director

Graduate Council Chair – Brad Shellito
Graduate Council Secretary – Tom Oder

Grievance Committee Chair – Bob Beebe

Graduate Curriculum Committee Chair – Samuel Adu-Poku, Art
membership: Joyce Feist-Willis, Teacher Education
Nancy Mosca, Nursing/
Sal Sanders, Health Professions
Helene Sinnreich, History
John Sullins, CSIS
(vacant), WCBA representative

Policy Committee Chair – Ken Miller, Counseling & Special Education
membership: Tammy King, Criminal Justice
Jamal Tartir, Mathematics & Statistics
James Umble, Dana School of Music
Ou Hu, Economics
(vacant), WCBA representative

Exceptions Committee Chair – Peter Kasvinsky
membership: Brad Shellito, Geography (Graduate Council Chair)
Ken Miller, Counseling (Graduate Policy Committee Chair)
Samuel Adu-Poku, Art (Graduate Curriculum Committee Chair)

GRADUATE COUNCIL PRESENTATION

The addition of a pre-grievance process to the Graduate Student Grievance Procedure was approved.

The inclusion of course objectives and outcomes in the graduate curriculum process was approved.

The admission policy for graduate certificates and non-degree students was changed. Non-degree applicants must now meet all requirements for admission to the School of Graduate Studies and Research (minimum unrecalculated GPA of 2.7 at the undergraduate level, baccalaureate degree, and submission of all academic transcripts). Students may complete only nine semester hours in non-degree status.

ASSISTANTSHIP ALLOCATION2010-2011 Regular Graduate Assistant Allocations

Biology	5	Accounting & Finance	3
Chemistry	6	Management	6
Economics	4	Marketing	3
English	8*	Teacher Education	7
History	7	Counseling & Special Educ.	13
Mathematics	5	Educational Administration	1
Civil Engineering	3	Music	10
CSIS	2	Criminal Justice	3
Electrical Engineering	2	Health Professions	1
Geology (Env. St.)	1	Physical Therapy	1
Mechanical Engineering	2	Social Work	2
Writing Lab	2		
Math Lab	2		
Reading Lab	2		
Total	101		

*1 for NEOMFA in Creative Writing

GRADUATE FACULTY MEMBERSHIPRegular Members approved 2009-10

Bob Beebe, EFRTL
 Bege Bowers, English
 Martin Cala, Mechanical & Industrial Engineering
 Lauren Cummins, Teacher Education
 Mary Lou DiPillo, Teacher Education/BCOE Dean's Office
 Kent Engelhardt, Music
 Dorcas Fitzgerald, Nursing
 Timothy Francisco, English
 Leah Gongola, Counseling & Special Education
 Patricia Hoyson, Nursing
 Anwarul Islam, Civil/Environmental & Chemical Engineering
 Alan Jacobs, Geological & Environmental Sciences
 H. W. Shawn Kim, Mechanical & Industrial Engineering
 Johanna Krontiris-Litowitz, Biological Science

Don Martin, Counseling & Special Education
Donna McNierney, EFRTL
Daryl Mincey, Chemistry
Peter Norris, Chemistry
Rachael Pohle-Krauza, Human Ecology
Jake J. Protivnak, Counseling & Special Education
Regina Rees, Teacher Education
Gail Saunders-Smith, Teacher Education
William Slocum, Music
Stephanie Smith, Art
Daniel Suchora, Mechanical & Industrial Engineering
John Sullins, Computer Science & Information Systems
Albert Sumell, Economics
Hans Tritico, Civil/Environmental & Chemical Engineering
Ebenge Usip, Economics
Charles Vergon, EFRTL
Thomas P. Wakefield, Mathematics & Statistics
Jane Louise Wetzel, Physical Therapy

CURRICULUM COMMITTEE REPORT 2009-10

New Graduate Courses 2009-10

ART 6960. *Special Topics in Art History*. Study in one of the many areas of art history. May be taken up to three times for credit if the topic is not repeated. 3 s.h.

BIOL 6911/6911L. *Comparative Biomechanics*. Overview of biomechanical principles involved with the structure and function of animals. Topics include mechanical properties of biomaterials, comparative muscle architecture and physiology, and locomotor mechanisms of human walking and running. Three hours lecture and two hours lab. Prereq.: BIOL 2602 or BIOL 3705, and PHYS 1501 or 2610. 4 s.h. + 0 s.h.

COUN 6910. *Human Development and Family Systems Counseling*. The purpose of this course is to provide students with the content knowledge of human development and systems theory in order to become effective in helping individuals and families change. Major theoretical approaches to life span development and family counseling will be addressed. 3 s.h.

COUN 6930. *College Counseling and Student Mental Health*. This course provides students with an overview of the field of college counseling. The course addresses the following topics: history, philosophy, theories, cultural dynamic, technology applications, assessment and evaluation responsibilities, legal and ethical issues, and current trends in college counseling settings. The college counselor's role, function, and professional identity as a student advocate, program coordinator, individual/group counselor, and prevention specialist is addressed. 3 s.h.

COUN 7034. *Advanced Evaluation of Mental and Emotional Status*. This course provides an advanced overview of the administration and interpretation of intelligence and personality tests. The course is designed to assist the student in becoming aware of testing procedures, testing practices and professional issues concerning the topic of assessment and to provide the student with practical assessment skills applicable to counseling. Prereq.: COUN 6934. 3 s.h.

COUN 7041. *Case Conceptualization, Treatment Planning, and Clinical Supervision*. The purpose of this course is to provide students with the advanced case conceptualization, treatment planning/intervention (24 hours) and theory/practice of supervision (24 hours). Includes 12 contact hours of supervision of practicum students at the YSU Counseling Program Community Counseling Clinic. 3 s.h.

ECEN 6988. *Nano- and Micro-Electro Mechanical Systems*. NEMS and MEMS fabrications, elastic system structure, membranes and plates, magnetically actuated systems, continuum theory and scaling laws. Microfluidics and nanofluidics devices. Prereq.: Graduate standing. 3 s.h.

ECON 6988. *Modeling in Financial Economics*. A study of modeling and evaluation of derivatives and bonds and risk management using derivatives. Topics cover various models in asset evaluation, such as bond price models, the Black-Sholes model, diffusion processes, and risk management. Also listed as STAT 6988. Prereq.: STAT 5843 or STAT 6943 or ECON 6976. 3 s.h.

ENST 6905. *Teaching Methods in Geology and Environmental Science*. A required course for all Department of Geological and Environmental Sciences graduate teaching assistants. This course will provide guidance and instruction in teaching introductory laboratories in the department. 2 s.h.

HHS 6970. *Organizational Behavior in Health Care*. Examines the concepts of individual and group behavior in health care organizations, including theories and models associated with workplace stress, conflict management, decision-making, teamwork and leadership. Prereq.: AHLT 4810, or MGT 6900, or MGT 6961. 3 s.h.

HHS 6971. *Optimizing Performance and Commitment*. An examination of the motivational culture and performance in health and human services organizations. The impact of resource management, personnel selection, recruitment, retention, and the motivational system in relation to employee performance and commitment. Prereq.: AHLT 4810 or MGT 6900. 3 s.h.

HHS 6972. *Information Systems for Health and Human Services Management*. An introduction to the design, implementation, and utilization of information systems. Emphasis is on the managerial and decision support aspects of information systems as well as current issues involving technology in the health and human services industries. Prereq.: AHLT 4810 or MGT 6900. 2 s.h.

MATH 6910, 6911. *Advanced Engineering Mathematics 1 & 2*. Theory and solution techniques used in engineering applications. Topics include brief review of ordinary differential equations and linear algebra; vector calculus, integral theorems, complex analysis, series, residue theory, potential theory, special functions, integral transforms, partial differential equations and applications in mathematical modeling. Prereq.: MATH 3705 for 6910 and MATH 6910 for 6911. 3 + 3 s.h.

MATH 6923. *Advanced Topics in Field Theory*. This course introduces the major results in advanced field theory. These results include splitting fields, algebraic extensions, finite extensions, cyclotomic polynomials, and finite fields. Credit will not be given for MATH 5823 and 6923. Prereq.: MATH 5822 or 6922. 3 s.h.

MATH 6924. *Galois Theory*. An introduction to Galois Theory with special emphasis on the Galois group, the Fundamental Theorem of Galois Theory, and radical extensions. Prereq.: MATH 5823 or 6923. 3 s.h.

MATL 6982. *Graduate Research*. Individual investigation of advanced topics under the guidance of selected program faculty. May be repeated for a maximum of 30 semester hours. 1 – 6 s.h.

MATL 6990. *Seminar in Materials Science and Engineering*. Presentations of ongoing research in materials science and engineering. Includes presentations by guest speakers, faculty and graduate students. May be repeated for a maximum of 3 semester hours. 1 s.h.

MATL 7010. *Analytical Methods for Materials Science I*. A laboratory course where the student will receive hands-on training with instruments commonly used in materials research. Techniques covered include optical methods, thermogravimetry, differential scanning calorimetry, X-ray diffraction, X-ray fluorescence, magnetic permeability, Hall effect, and atomic force microscopy. 2 s.h. (1 h. lecture / 3 h. lab)

MATL 7020. *Analytical Methods for Materials Science II*. A laboratory course where the student will receive hands-on training with instruments commonly used in materials research. Instruments covered include stress/strain apparatus, scanning electronic microscope, electron microprobe, transmission electron microscope, focused ion

beam microscope, X-ray photoelectron spectrometer, Auger spectrometer, impedance analyzer, and potentiostat. 2 s.h. (1 h. lecture / 3 h. lab)

MATL 8010. *Structure of Materials*. A study of the structure/property relationship of materials at the electronic, atomic, and molecular level. Using quantum chemistry, symmetry, chemical bonding and electrochemistry, this course will introduce the student to the classification and properties of amorphous, crystalline, and semi-crystalline structures including metals, semiconductors, ceramics, polymers, and hybrid materials. The properties to be studied include mechanical, thermal, electrical, and magnetic properties. 3 s.h.

MATL 8020. *Mechanical Properties of Materials*. This course addresses the mechanical behavior of materials, assuming knowledge of elasticity, plasticity, fracture and creep, and aims to provide a robust analytical treatment of these topics across size scales and material types. The course is split into three sections: (a) Continuum mechanics, (b) Advanced phenomena in mechanics of materials, and (c) Case studies focused on the design and processing of materials. Prereq.: MATL 8010. 3 s.h.

MATL 8030. *Thermodynamics and Phase Behavior*. Detailed examination of chemical equilibria and chemical changes with an emphasis on the theoretical basis for these phenomena and the properties of phase diagrams. The use of computer models for chemical equilibrium calculations utilizing extensive thermodynamic databases. 3 s.h.

MATL 8040. *Kinetics, Diffusion, and Rate Processes*. Essential topics covered include diffusion in solids and liquids; complex motion of dislocations and interfaces; complex kinetics of phenomena such as phase transformations and morphological evolution; and the rate at which these and other kinetic phenomena occur. Prereq.: MATL 8030. 3 s.h.

MATL 8050. *Materials Internship*. Supervised experience in approved external industrial, government lab, or other comparable environment, working on advanced problems in materials. For materials science and engineering doctoral students or by permission of program coordinator. Prereq.: MATL 8020. May be repeated for a maximum of 6 semester hours. 1-6 s.h.

MATL 8060. *Dissertation*. Design, proposal, completion, and reporting of scholarly research deemed acceptable to the program faculty. Culminates in an oral presentation to dissertation committee. Prereq.: completion of qualifying exam and research proposal. 1-9 s.h.

NURS 7018. *Nursing Curriculum Design*. Foundations of nursing curriculum with designs, development of frameworks, and identification of learning strategies to achieve nursing education learning competencies and outcomes. 3 s.h.

NURS 7019. *Nursing Instructional Methods*. Theoretical foundations and analysis of teaching strategies in academic and clinical settings promoting critical thinking, assessment techniques, and learning outcomes in a variety of nursing education and healthcare settings. Prereq.: NURS 7018. 3 s.h.

NURS 7020. *Evaluation in Nursing Education*. Methods, frameworks, basic principles, and strategies for nursing educational evaluation, including assessment, designs, curriculum and program evaluation tools, agency accreditation processes, legal and ethical guidelines, and measurement tools of scoring and grading. 3 s.h.

NURS 7021. *Nurse Educator Role*. Examination of concepts, theories and research related to advanced practice role development, teaching, learning, technology, evaluation strategies, leadership, marketing skills, and nursing education practice in academic and health care delivery settings. Prereq.: NURS 7018, 7019, and 7020. 4 s.h.

NURS 7022. *Nurse Educator Role Practicum*. Field experience and application of concepts, theories, research findings, teaching strategies, learning, technology, evaluation strategies, leadership, and marketing skills from NURS 7018, 7019, and 7020 in a variety of nursing education and healthcare settings. This practicum will consist of 150 hours. Prereq.: NURS 7018, 7019, and 7020 or concurrent with 7021. 5 s.h.

PHYS 6930. *Semiconductor Materials and Devices*. Materials properties of semiconductors, the physics and principles of operation of various semiconductor devices including Schottky diodes, PN junction diodes, photodetectors, LEDs and bipolar junction transistors. Electrical, Optical, and Physical characterization methods used for semiconductor materials and devices. Prereq.: Completion of at least one of the following courses or their equivalent: PHYS 3742, 3750, 5810, or 5830. 3 s.h.

PHYS 6971. *Condensed Matter I*. A study of the structure/property relationships of matter in the condensed state at the electronic, atomic, and molecular level. Using quantum chemistry, symmetry, chemical bonding, and electrochemistry, this course will investigate the theoretical underpinnings for the properties of amorphous, crystalline, and semi-crystalline structures including metals, semiconductors, ceramics, polymers, and composites. Properties studied include mechanical, electrical, thermal, and magnetic. Prereq.: PHYS 3704 and 5810. 3 s.h.

PHYS 6977. *Physical Measurement and Fundamental Characterization*. A lecture course on the application of fundamental physical principles and statistical techniques to the design, operation, characterization, optimization, and data analysis of data from a broad palette of transducers, sensors and measurement systems. Signal noise detection modalities for noisy environments, intrinsic sensor noise, technical noise. 3 s.h.

PHYS 6980. *Computer Environment, Applications and Analysis*. A combined lecture (2 hours/week) and laboratory (3 hours/week) course that includes theoretical study and hands-on experience in a mixed signal environment emphasizing data acquisition, software design and data analysis using C and vector language tools (MATLAB). Interfacing, hard and soft interrupts, micro-controller and embedded controller applications, FPGA, and mixed signal ASICs and PLCs and ladder logic. Prereq.: CSCI 3750 or equivalent. 3 s.h.

PHYS 6981. *Experimental and Diagnostic Technique*. A combined lecture (2 hours/week) and laboratory (3 hours/week) course that includes theoretical study and hands-on experience in both hardware and software used in creating, recording and analyzing telemetry from a diverse cohort of sensors. Theoretical principles applied in the design/implementation/analysis of sensing tools for developing diagnostic acumen. Various data acquisition, reduction and control methodologies. Prereq.: CSCI 3750 or equivalent, PHYS 3704, PHYS 3705. 3 s.h.

PHYS 6989. *Engineering Physics Internship*. One semester immersion, usually through full-time paid employment at a partner company. Work completed at the internship site will contribute to the professional development and expertise portfolio of the student. 1 – 6 s.h.

PSYC 6957. *Advanced Adult Development and Aging*. Examines the principles and methods of developmental psychology as they are applied to adulthood. Includes physical functioning, cognitive and behavioral processes, intimacy and family issues, personality and emotional development, career development, and sociocultural factors in the aging process. Prereq.: PSYC 3757 or SOC 3703. 3 s.h.

RESC 6900. *The Respiratory Care Profession*. Study of origins, current role, and future directions of respiratory care profession within the framework of the current health care environment. Examination of professional resources is also included. Prereq.: Active membership in American Association for Respiratory Care and acceptance in MRC program. 3 s.h.

RESC 6906. *Respiratory Care Seminar*. Development of a literature review on select current topics culminating in preparation of a scholarly paper consistent with Respiratory Care Journal Conference format and an accompanying PowerPoint presentation. Prereq.: Acceptance in MRC program. 3 s.h.

RESC 6908. *Leadership Development in Respiratory Care*. Using an evidenced-based perspective, the course will examine nature of leadership in health care organizations with an emphasis on self-understanding and learning to achieve both a theoretical and practical understanding of leadership. Health care managers need to be able to create, foster and manage organizations in which people thrive and perform at their best to achieve organizational excellence. Prereq.: Acceptance in MRC program. 3 s.h.

RESC 6910. *Competency Assessment in Respiratory Care*. Reviews how clinically-related competencies in respiratory care are measured including available tools. Evaluation of procedures performed by multiple health care

practitioners including issues at state/national levels. Importance of assessing cultural competence also included. Prereq.: Acceptance in MRC program. 3 s.h.

RESC 6915. *Education and Accreditation in Respiratory Care*. Comparison of institutional as well as programmatic accreditation requirements. Prepare students with up-to-date tools/approaches to address major educational accreditation concerns in hospital as well as in post-secondary settings. Students will also compare and contrast the role of accreditation in today's health care environment. Prereq.: Acceptance in MRC program. 3 s.h.

RESC 6920. *Technology Applications for Health and Human Services*. Exploration of technology applications for education, presentations, communications and management in Health and Human Service disciplines. Creation of digital media such as audio and/or video files, spreadsheet macros, e-portfolios and Web-based applications of various technologies will be required. Application of technology to education, supervision or management will be evaluated through completion of a technology-enhanced project. Prereq.: Acceptance in MRC program. 3 s.h.

RESC 6922. *Special Topics in Respiratory Care*. Special topics for a focused study on problems, issues, or concerns that relate to respiratory care leadership. Prereq.: Acceptance in MRC program. 1 – 3 s.h.

RESC 6926. *Advanced Mechanical Ventilation*. Develops the practitioner's knowledge of advanced ventilatory theory. The technological aspects and clinical application of dual control modes of ventilation, closed loop and ventilator feedback technology will be discussed. The clinical application of unconventional methods of ventilatory support such as ECMO and carbon dioxide removal, transtracheal gas insufflation and HFV will also be presented. Prereq.: Acceptance in MRC program. 3 s.h.

RESC 6930. *Managing Respiratory Services*. Presents a comprehensive approach to the delivery of respiratory services across the continuum of care. Management practices in traditional or acute care settings and nontraditional home care, outpatient rehabilitation facilities, sleep laboratories and long-term care institutions will be compared and contrasted. Compliance with national/state accreditation standards will also be presented. Prereq.: Acceptance in MRC program. 3 s.h.

RESC 6943. *Advanced Monitoring and Therapeutics*. The course is designed to analyze technical features and clinical application of "state of the art" invasive and noninvasive monitoring devices. Specialty therapeutic procedures such as the administration of specialized medical gases and medications will also be explored. The essential elements key to successful integration of new and/or complicated therapeutic modalities and equipment into clinical practice will be highlighted. Prereq.: Acceptance in MRC program. 3 s.h.

RESC 6950. *Respiratory Care Research*. Provides rationale behind evidence-based medicine and presents key elements of scientific research for one study, lab investigation or clinical trial. Course will culminate in creation of abstract to be submitted for publication in Respiratory Care journal. Prereq.: Acceptance in MRC program. 3 s.h.

SPED 6900. *Issues, Trends & Foundations in Special Education*. Exploratory study of the issues, trends, and foundations in special education. Evidence-based principles, laws and policies, diverse and historical points of view, and human issues that focus on the education of individuals with mild to intensive exceptional learning needs are examined. The relationship of special education to the organizations and functions of schools/agencies is explored. Prereq.: Admission into the program and approval of the department chair. 3 s.h.

SPED 6906. *Characteristics and Behaviors of Learners with Mild/Moderate and Moderate/Intensive Exceptional Learning Needs*. Course focuses on federal and state laws and initiatives that influence the operations and decisions of educational opportunities for students with mild/severe disabilities. Topics include categories of disabilities, current trends and best practices for instruction and assessment. Also, recommended collaboration strategies for educators, administrators and families. Prereq.: Successful completion or concurrent enrollment of SPED 6900. 3 s.h.

SPED 6915. *Classroom Management and Crisis Intervention for Learners with Severe Emotional and Behavior Disorders*. Behavior analysis, behavior management, instruction, curriculum and program development for youth with severe emotional and/or behavior disorders. Advanced behavior change interventions and a practicum

consisting of work in the field with emotionally and/or behaviorally disturbed youth required. Prereq.: Successful completion of SPED 6910. 3 s.h.

SPED 6928. *Transition and Life Skill Supports for Learners with Moderate/Intensive Exceptional Learning Needs.* Course focuses on best practices of the professional collaboration process with regard to the transition process for students with moderate/intensive exceptional learning needs. Learner's individual strengths and characteristics will be considered to facilitate social, vocational and daily living skills for all learners. Successful completion of a two-hour field experience is required. Prereq.: Successful completion of SPED 6906. 3 s.h.

SPED 6929. *Assessment of Gifted and Exceptional Learners.* Course focuses on the educational assessment process as it applies to exceptionalities (learners with disabilities as well as gifts and talents). Topics include a review of state and federal regulations, data collection techniques including both formal and informal methods, appropriate test preparation and interpretation, design of identification and placement procedures. Prereq.: Successful completion of SPED 6906. 3 s.h.

SPED 6931. *Clinical Experience for Learners with Mild/Moderate Exceptional Learning Needs.* Supervised clinical experiences incorporating theory, planning, and implementation of services for learners with mild/moderate learning needs. Weekly seminars will connect theory to practice during concurrent enrollment in SPED 6930. Prereq.: Successful completion of SPED 6909, 6927, 6928, 6929, concurrently enrolled in 6930, and passage of Praxis II. 3 s.h.

SPED 6932. *Clinical Experience for Learners with Moderate/Intensive Exceptional Learning Needs.* Supervised clinical experiences incorporating theory, planning, and implementation of services for learners with moderate/intensive learning needs. Weekly seminars connect theory to practice. Prereq.: Successful completion of SPED 6909, 6927, 6928, 6929, 6930, 6931, and passage of Praxis II. 3 s.h.

STAT 6904. *Life Contingency Modeling I.* An introduction to various statistical, financial, and mathematical models used to determine insurance premiums. These models identify contingency risks and are based upon individual risk model frameworks. Prereq.: MATH/STAT 5843, STAT 6943, or consent of the instructor. 3 s.h.

STAT 6905. *Life Contingency Modeling II.* An introduction to multiple life functions, multiple decrement models, valuation theory for pension plans, insurance models including expenses, nonforfeiture benefits and dividends, and other means to determine benefit premiums. Prereq.: STAT 6904. 3 s.h.

STAT 6910. *Loss Models.* An introduction to the development of loss and severity models used in actuarial science and the statistical methods used to estimate the parameters of such models. Additional topics, including credibility and simulation, may be covered. Prereq.: MATH/STAT 5844, STAT 6944 or equivalent. 3 s.h.

TCED 6932. *Action Research in Urban and Rural Education.* This course focuses on action research as it applies to urban and rural education. Topics include reflecting to identify a problem, reviewing literature, planning and implementing interventions, data collection and analysis strategies, and sharing outcomes with others. Course may be offered onsite, online, or as a combination of both. Field experience in an appropriate educational setting is required. Prereq.: Admission to School of Graduate Studies and Research. 3 s.h.

TCED 6933. *Brain Based Teaching and Learning.* This course is a critical appraisal of learning and teaching. Each learner constructs his/her brain as learning occurs. Teachers reconsider their practices in light of the science of learning research provided by education, neuroscience and socio-psychology. Course may be offered onsite, online, or as a combination of both. Prereq.: Admission to School of Graduate Studies and Research. 3 s.h.

TERG 6972. *Coaching for Effective Assessment Practice.* Designed for reading specialists, this course teaches knowledge, skills, and dispositions in school-based professional development and coaching on K-12 reading assessment concepts and skills. Prereq.: TERG 6971. 2 s.h.

TERG 6973. *Professional Development in Literacy*. An introduction to research and knowledge bases related to teacher professional development from a variety of perspectives. Examines coaching as one venue of supporting teacher professional development. Prereq.: TERG 6972. 2 s.h.

TERG 6974. *Advanced Action Research in Literacy*. Intro to literacy research as an integral part of professional development. Builds candidate understanding of a variety of literacy research paradigms, supports engagement in inquiry to significantly advance candidates' understanding of literacy, and provide opportunities for candidates to collaborate with other literacy professionals to advance understanding of evidence-based practice. Prereq.: TERG 6973. 2 s.h.

TERG 6975. *Internship I*. Culminating activity supporting and integrating accomplishment of the Literacy Specialist Endorsement Standards I-VII. School-based practicum providing group and individual professional development to colleagues for continuous improvement of literacy curriculum, instruction, and assessment. Diagnostic reading and writing clinical experiences focus on data-based decision making to inform professional development provided in both group and individual settings (coaching). Prereq.: TERG 6971. 4 s.h.

TERG 6976. *Internship II*. Continuation of the culminating activity supporting and integrating accomplishment of the Literacy Specialist Endorsement Standards I – VII. School-based practicum providing group and individual professional development to colleagues for continuous improvement of literacy curriculum, instruction, and assessment. Diagnostic reading and writing clinical experiences focus on data-based decision making to inform professional development provided in both group and individual settings (coaching). Prereq.: TERG 6975. 4 s.h.

Changes in Graduate and Swing Courses 2009-10

COUN 7001. *Counseling Practicum I*. Supervised individual counseling practice with volunteer clients. Focus upon process, clarification, and resolution of counselee goals and counselor self-awareness/evaluation. Students are required to attend a scheduled orientation in the Community Counseling Clinic prior to the first class. Prereq.: COUN 5898 or 6961, 6900, 6962, 6973 (can be taken concurrently), 6980 (required for clinical counseling students only). 3 s.h. (Change prerequisite)

COUN 7004. *Practicum in Student Affairs*. This course will provide an orientation to the student affairs division, as well as offering students the opportunity to gain experience in a higher education setting. The program component will include individual and group supervision, as well as supervised field experience. 3 s.h. (Change course title, description, & prerequisite)

COUN 7005. *Internship in Student Affairs*. This course will provide a weekly supervision and 600 hours of supervised field experience for student affairs students. The internship supervision is designed to promote the integration of theory and practitioner experiences for students in the student affairs program and to help students prepare for the transition to a professional student affairs position following completion of the degree. Prereq.: COUN 6900, 6962, 7004, and 7026. 3-6 s.h. (Change prerequisite)

COUN 7044. *Leadership and Administration in Student Affairs*. This course provides students with an opportunity to read, reflect, and integrate theories, concepts, and practices related to leadership and administration. Students will be challenged to reflect on their core values and principles. Students will see leadership through a new paradigm, and formulate their own philosophy of leadership. Students will be challenged to employ visionary leadership in the planning and implementation stage of change. 3.s.h. (Change course title & description)

MATH 6922. *Advanced Topics in Group and Ring Theory*. A continuation of MATH 5821 with special emphasis on groups acting on sets, Sylow's Theorem and its applications, ring homomorphisms, ideals, and polynomial rings. Credit will not be given for MATH 5822 and 6922. Prereq.: MATH 3721 or 5821. 3 s.h. (Change course number, course title, and description)

MECH 5892. *Control of Mechanical Systems*. Introduction to theory of feedback and control. Performance and stability of linear systems. Design of feedback control systems. Practical application and introduction to state-space methods. Two hours lecture and three hours laboratory per week. Prereq.: MECH 4881. 3 s.h. (Change description and prerequisite)

SPED 6965. *Special Topics in Disability Education*. Workshop will include information on various current topics appropriate to the education of students with disabilities. These include assessment, identification, and instructional processes. Prereq.: PRAXIS passage. 1–4 s.h. (Change prerequisite)

SPED 6981. *Seminar in Special Education*. This course details current issues in the field of special education involving research, pedagogy, methodologies, and application. Emphasis is on the intervention and remediation of receptive/expressive language dysfunctions, as well as other issues related to children and youth with disabilities. Prereq: SPED 6983. 3 s.h. (Change prerequisite)

SPED 6986. *Severe Behavior Disorders*. A comprehensive analysis of programs and the description of the delivery of services to a wide range of seriously emotionally disturbed children and youth. Prereq.: SPED 6906 or 6983. 3 s.h. (Change prerequisite)

SPED 7040. *Field Experience in Gifted and Talented Education*. Supervised field experience that incorporates theory, planning, and implementation of curriculum for gifted and talented students. Individual conferences and completion of contracted assignments. Prereq.: SPED 5871, 5878, 6982 and COUN 5879, 6983. 2 s.h (Change prerequisite)

SPED 7077. *Leadership in Gifted and Disabilities Education*. The course focuses on leadership, administration, and supervision of a broad range of programs and services for students with exceptionalities (students with disabilities as well as gifted students). Topics include review of theoretical foundations, historical and sociological issues as these relate to education of special populations, as well as in-depth study of federal and state legal issues, differentiated programming and procedures, student identification and placement, individualized education plans, due process, least restrictive environment, and program monitoring and evaluation. Prereq.: SPED 5871, 5878, 6983 and COUN 5879. 3 s.h. (Change prerequisite)

TERG 6970. *Coaching in Diverse Classrooms*. The focus of this course is on the preparation of literacy specialists to coach teachers in the implementation of culturally responsive instruction for diverse learners. This population includes special needs, culturally and linguistically diverse students. Emphasis will be placed on connections between current theory, research, and instructional practice. 2 s.h. (Change course title, description, prerequisite, and course hours)

TERG 6971. *Pedagogy of Effective Literacy Instruction*. Candidates demonstrate knowledge of a wide range of instructional practices, methods, and curriculum materials, including technology, that support effective reading and writing instruction. Candidates integrate their knowledge and dispositions regarding curriculum, instructional practices, curricular materials, assessment, and evaluation to create literate environments that foster both reading and writing in all students. Prereq.: TERG 6970. 2 s.h. (Change course title, description, prerequisite, and course hours)

Undergraduate Courses Approved for Swing Credit 2009-10

BIOL 5813/5813L. *Vertebrate Histology*. The microscopic study of mammalian tissues and organs. Two hours lecture and three hours lab. Prereq.: BIOL 3711 or 3730. 3 s.h. + 0 s.h.

MATH 5823. *Abstract Algebra III*. This course introduces advanced topics in field theory. Topics may include principal ideal domains, irreducibility, quotient rings, algebraic extensions, finite fields, splitting fields, and the Galois group. Prereq.: MATH 5822. 3 s.h.

MECH 5842. *Kinetics of Machines*. Three-dimensional kinematics and dynamics of machines. Dynamic analysis and design; balancing of machines. Prereq.: MECH 3742. 3 s.h.

MECH 5885. *Computational Fluid Dynamics*. Applied numerical analysis, including solution of linear algebraic equations and ordinary and partial differential equations; modeling of physical processes, including fluid flow and heat and mass transfer; use of general purpose computer codes, including commercial computational fluid dynamics software packages. Prereq.: MECH 3720 and 3725. 3 s.h.

STAT 5800. *Mathematical Foundations of Actuarial Science*. A survey of probability theory and an introduction to risk management. Emphasis of the course will be on problem solving with applications in actuarial science. Prereq.: MATH/STAT 5843 or consent of instructor. 3 s.h.

STAT 5806. *Seminar in Actuarial Science*. Approaches to and practice with problem solving in actuarial science. Topics may include financial mathematics, financial economics, or actuarial modeling. May be repeated once. Note that this course is not applicable to the mathematics major. Prereq.: MATH/STAT 5843 or consent of the instructor. 2-3 s.h.

STAT 5814. *Statistical Data Mining*. A systematic introduction to data mining with emphasis on various data mining problems and their solutions. Topics include data mining processes and issues, exploratory data analysis, supervised and unsupervised learning, classification, and prediction methods. Prereq.: STAT 3717 or 3743, or consent of department chairperson. 3 s.h.

Deleted Graduate Courses 2009-10

BIOL 6965. *Principles of Electron Microscopy*.

BIOL 6971. *The Teaching and Learning of Biology*.

BIOL 6972. *Methods of Biology Education Research*.

BIOL 6973. *Biology and National Science Education Standards*.

SPED 6983. *Characteristics and Needs of Children and Youth with Mild/Moderate and/or Moderate Intensive Disabilities*.

Graduate Credit Dropped from a Swing Course 2009-10

BIOL 5836. *Cell Biology: Molecular Mechanisms*.

New Graduate Programs 2009-10

Full Proposal for Ph.D. in Materials Science and Engineering.

Program Development Plan (PDP) for Master of Respiratory Care

Program Development Plan (PDP) for Master of Engineering Physics

Nurse Education graduate certificate.

Program Changes—Graduate Programs 2009-10

Program Change -- MA in Art Education program. Drop Praxis III (NTE) or equivalent from admission requirements. (The Ohio State Board of Education has eliminated Praxis III as a requirement for professional teacher license.)

Program Change – MS in Applied Behavior Analysis. Program Action – MS in Applied Behavior Analysis. Change in requirements for graduation: A grade of “C” or lower in a course used to satisfy graduation requirements must be retaken. Students must earn a “B” or better in all courses used to satisfy degree requirements.

Program Change – MS in Ed., Special Education, Autism & Related Disabilities option. Change program requirements. Existing language: PSYC 6990 *or* PSYC 6960 is required. Change requested: Drop PSYC 6960 as an option.

Program Change: Add new program option within MSN degree (Nurse Education).

Program Change – Master of Business Administration (MBA). Change in admission requirements: GRE will be accepted as an alternative to the GMAT.

Program Change – MBA. Change in admission requirements: The GMAT will be waived for individuals who hold a terminal graduate degree such as a JD, MD, PhD, DMD, or DDS.

Program Change – MBA. Change in degree requirements. Level III course hours requirement is changed from 8 s.h. to 9 s.h., and total hours for degree is changed from 30-48 s.h. to 31-49 s.h.

Program Action – Master of Health & Human Services (MHHS). Change in admission requirements. Eliminates the requirement to take CSIS 1514 Business Computer Systems as a prerequisite to admission to the MHHS program. Students should complete any undergraduate deficiency coursework before completion of the third semester of graduate work and must complete it prior to enrolling in related graduate-level courses.

Program Change – MS in Biology. Delete the Biology Education option.

Program Change – MS in Chemistry. Change in admission requirements: The Chemistry or Biochemistry subject GRE test is required of all students that do not have a B.S. or B.A. in chemistry or biochemistry.

Program Action – MS in Mathematics. Change graduate statistics track program description.

Program Action – MS in Education, special education programs. Change admission requirements.

Program Action – MS in Education, Special Education – Autism and Related Disabilities option. Change admission requirements and degree requirements. Option will be cohort based.

Program Action – MS in Education, Special Education – General option. Change admission requirements and degree requirements.

Program Action – MS in Education, Intervention Specialist Mild to Intensive licensure option. Change option name, admission requirements, and degree requirements. Option will be cohort based and will increase from 32 to 33 s.h.

Program Action – MS in Education, Counseling. Change curriculum sheet for Addiction Counseling.

Program Action – MS in Education, Counseling. Change curriculum sheet for Clinical Mental Health Counseling.

Program Action – MS in Education, Counseling. Change curriculum sheet for College Counseling.

Program Action – MS in Education, Counseling. Change curriculum sheet for School Counseling.

Program Action – MS in Education, Counseling. Change curriculum sheet for Student Affairs.