

BALL STATE UNIVERSITY

ACADEMIC POSTING

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This posting may contain all or part of the following: new, revised, and dropped programs, courses and prefixes. The posting period begins September 4, 2007. If no demurrer is received within ten school days, the changes will be certified for implementation. *The effective date for implementing undergraduate materials posted after January 24, 2006 is Fall Semester 2008. Graduate materials posted after February 5, 2007 have an implementation date of Fall Semester 2009.*

College of Applied Sciences and Technology

DEPARTMENT OF TECHNOLOGY

INDUSTRY AND TECHNOLOGY: MANUFACTURING (ITMFG)

Revised:

ITMFG 340. Fluid Power: Hydraulic Systems. (3.0) Fundamentals of hydraulic systems emphasizing applications of Bernoulli's equation. Includes component types and designs, hydraulic circuit analysis, and design of hydraulic systems. Weekly laboratory scheduled. Prerequisite: ITMFG 307 or 335.

ITMFG 460. Projects in Computer-Aided Manufacturing 1. (3.0) This is the first course of a two-semester sequence of senior capstone. Encompasses the design of product, the selection of raw materials, and the sequence of manufacturing processing techniques. The course emphasizes teamwork, project management, testing through simulation or prototype, oral, and written communications. Prerequisite: senior standing.

ITMFG 473. Projects in Computer-Aided Manufacturing 2. (3.0) This is a continuation of ITMFG 460. It includes CNC, CAD, CAM, robotics, and other computer-based technology in manufacturing systems. Extensive laboratory work required. Prerequisite: ITMFG 460.

DEPARTMENT OF MILITARY SCIENCE

MILITARY SCIENCE (MIL)

New:

MIL 355. Land Warfare. (3.0) Study of land warfare to develop awareness of the military establishment-society relationship, particularly in the United States. Includes evolution of land warfare and progression of military professionalism focusing on army operations, awareness of history and purpose of joint operations, and the role of history in understanding their profession. Prerequisite: permission of the department chairperson. Open only to minors in military science.

Revised:

MIL 301. Military Leadership and Operations 1. (3.0) Introduction to military planning methodology. Develop oral and written communication skills through an introduction to small unit tactics and operations. Prerequisite: MIL 202; permission of the department chairperson. Open only to minors in military science.

MIL 302. Military Leadership and Operations 2. (3.0) Continues the methodology of MIL 301. Analysis of leadership and management problems using military tactics at the squad level. Train on individual skills. Prerequisite: MIL 301; permission of the department chairperson. Open only to minors in military science.

MIL 401. Leadership Challenges and Goal-Setting. (3.0) Plan, conduct, and evaluate activities of the ROTC cadet organization. Develop confidence in skills to lead people and manage resources. Develop counseling and motivating techniques. Prerequisite: MIL 302; permission of the department chairperson. Open only to minors in military science.

MIL 402. Leadership Challenges and Goal-Setting. (3.0) Continues the methodology of MIL 401. Refine counseling and motivating techniques and prepare for a

future as a successful Army lieutenant. Prerequisite: MIL 401; permission of the department chairperson. Open only to minors in military science.

SCHOOL OF NURSING

NURSING (NUR)

Correction:

NUR 780. Seminar: Advanced Topics in Management of Client Health/Illness Status.

Change credit hours **from:** 2.0 **to:** 3.0

NUR 792. DNP Project.

Change credit hours **from:** 3.0 **to:** 4.0

Add: Prerequisite: 15 completed credit hours of 700 level courses.

Revised:

NUR 230. *Health Appraisal Across the Lifespan. (3.0) Begins application of nursing process and professional role development using a holistic approach with emphasis on assessment. Focuses on psychomotor skills, data collection and interpretation, communication, and interviewing skills, and beginning health promotion activities with clients across the lifespan in a variety of settings. Prerequisite: ANAT 201; BIO 113; CHEM 101; PSYSC 100; PHYSL 210; SOC 100; departmental permission. Parallel: NUR 232; PHYSL 211. Open only to baccalaureate nursing students.

NUR 404. *Community Health. (4.0) Applies nursing process with individuals, families, and aggregates across the lifespan in various community settings. Uses concepts of public health, nursing, health promotion, risk reduction, disease prevention, epidemiology, information/health care technologies, human diversity, research, and health care systems/policies emphasizing collaborative practice and use of community resources. Prerequisite: NUR 322, 340, 350; HSC 180; PSYSC 241 or SOC 382; (NUR 401 for RN's only); departmental permission. Parallel: NUR 406, 408. Open only to baccalaureate nursing students.

Miller College of Business

DEPARTMENT OF ECONOMICS

ECONOMICS (ECON)

Revised:

ECON 221. Business Statistics. (3.0) Introduction to various statistical and probabilistic concepts and techniques with application to business problems including random variables and probability distributions, measures of central tendency and dispersion, testing of hypotheses, simple linear regression, and correlation. Prerequisite: C or better grade in MATHS 136; sophomore standing; demonstrated proficiency in computer skills.

DEPARTMENT OF INFORMATION SYSTEMS AND OPERATIONS MANAGEMENT

INFORMATION SYSTEMS AND OPERATIONS MANAGEMENT (ISOM)

Dropped:

ISOM 229. Information Technology for Paralegals. (3.0)

College of Sciences and Humanities

DEPARTMENT OF ANTHROPOLOGY

ANTHROPOLOGY (ANTH)

New:

ANTH 452. Anthropology of Technology. (3.0) Will review the anthropological literature on technology, focusing on cultural and comparative aspects of technology. This subfield's theoretical base and research methods will also be assessed.

Revised:

ANTH 305. Human Biological Variation. (3.0) Looks at the biological diversity of contemporary human populations from the perspective of evolutionary adaptation, taking into account distribution, inheritance, development, and adaptiveness of observable or measurable traits.

DEPARTMENT OF COMPUTER SCIENCE

COMPUTER SCIENCE (CS)

Correction:

CS 236. Computer Database Techniques. (3.0)
Revise prerequisite **from:** CS 104 **to:** CS 104 or equivalent.

Revised:

CS 300. Local and Wide Area Networks. (3.0) An introductory networking course with hands-on labs. LAN usage: file servers, print servers, and database servers. LAN design: writing systems, protocols, interconnection devices, and operating systems, WAN usage: file transfer protocols and remote information systems. WAN design: leased phone lines, protocols, and routers. Parallel: CS 120 or 203 or 233. Not open to students who have credit in ISOM 417.

DEPARTMENT OF ENGLISH

ENGLISH (ENG)

Revised:

ENG 306. Creative Nonfiction Writing. (3.0) Intensive study of creative nonfiction, with practice in writing and critique. Prerequisite: ENG 285.

ENG 307. Fiction Writing. (3.0) Intensive study of fiction, with practice in writing and critique. Prerequisite: ENG 285.

ENG 308. Poetry Writing. (3.0) Intensive study of poetry, with practice in writing and critique. Prerequisite: ENG 285.

ENG 311. Language Arts Methods. (3.0) Modern methods and materials for teaching written and oral expression, language use, spelling, handwriting, and literature in the elementary grades. Cannot be counted as an elective in major or minor programs in English. Prerequisite: junior or senior standing recommended.

ENG 350. Teaching Writing in Secondary Schools. (3.0) Concentrates on materials, methods, and resources used in teaching composition and the use of performance assessments in the English language arts classroom. Additional focus on technology and multimedia in

practice, introduction to pedagogical practices and curriculum development. Required of teaching majors; may not be applied toward other departmental programs. Prerequisite: must have completed Decision Point Two.

ENG 395. Teaching Literature and Language in Secondary Schools. (3.0) Concentrates on materials, methods, and resources used in teaching literature, visual representation, language, speaking, and listening in the English language arts classroom. Advanced study of pedagogical practices related to planning, curriculum, and professional development. Required of teaching majors; may not be applied toward other departmental programs. Prerequisite: ENG 350.

ENG 406. Advanced Creative Nonfiction Writing. (3.0) Advanced creative nonfiction writing, with study of contemporary writers and workshops of student work. Prerequisite: ENG 306. A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

ENG 407. Advanced Fiction Writing. (3.0) Advanced fiction writing, with study of contemporary writers and workshops of student work. Prerequisite: ENG 307. A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

ENG 408. Advanced Poetry Writing. (3.0) Advanced poetry writing, with study of contemporary writers and workshops of student work. Prerequisite: ENG 308. A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

ENG 410. Advanced Script Writing. (3.0) Advanced script writing for television, film, or stage with emphasis on developing scripts for production. Prerequisite: ENG 310, 425. A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

ENG 436. Theory and Research in Teaching English to Speakers of Other Languages. (3.0) Psychological and linguistic bases of language learning and recent theories concerning the application of linguistic science to methodology and materials in second-language teaching. Prerequisite: ENG 220, 320, or permission of the department chairperson.

ENG 437. Methods and Materials in Teaching English to Speakers of Other Languages. (3.0) Study and practice of a variety of methods in teaching English as a second or foreign language. Discussion of pedagogical issues in language teaching. Prerequisite: ENG 220, 320 or permission of the department chairperson.

ENG 438. TESOL Curriculum Development and Assessment. (3.0) Focuses on curriculum development

and assessment and the use of materials to meet the specific needs of English language learners at various levels of proficiency. Prerequisite: ENG 436, 437.

ENG 444. Senior Seminar. (3.0) An investigation in some depth of a problem or question in English Studies. Specific topics will vary by section and will be announced in advance by the instructor. Prerequisite: senior standing or permission of the department chairperson. Open only to senior English majors and language arts teaching majors.

ENG 457. Practicum in Teaching English to Speakers of Other Languages. (3.0) Practical experience in observation, teaching, and analysis of teaching English as a second or foreign language. Prerequisite: ENG 436, 437.

ENG 489. Practicum in Literary Editing and Publishing. (1.0 TO 3.0) History, philosophy, and practice of literary editing and publishing. Students will work on projects including the production and publication of a literary magazine. Prerequisite: ENG 306 or 307 or 308. A total of 3 hours of credit may be earned.

ENG 490. Literature and Gender. (3.0) Study of gender and sexuality as understood, constructed, and contested in one or more cultural/historical settings. Texts may include literary, critical, and theoretical writings and works in other media. Prerequisite: ENG 210 or permission of the department chairperson. Prerequisite recommended: at least two courses in literature or permission of the department chairperson.

ENG 491. Literature of African-American Traditions. (3.0) Survey of the African-American literary tradition in the United States. Prerequisite: ENG 210 or permission of the department chairperson. Prerequisite recommended: at least two courses in literature or permission of the department chairperson.

ENG 492. Native American Literature. (3.0) Study of materials from the oral and written literatures of Native Americans. Prerequisite: ENG 210 or permission of the department chairperson. Prerequisite recommended: at least two courses in literature or permission of the department chairperson.

ENG 493. American Ethnic Literature. (3.0) Study of the literary, oral, cultural, and historical traditions of a specific ethnic group and/or study of a range of responses by writers of color to a specific issue or theme. Prerequisite: ENG 210 or permission of the department chairperson. Prerequisite recommended: at least two courses in literature or permission of the department chairperson.

ENG 498. Post-Colonial Studies. (3.0) A study of major works from post-colonial countries and cultures, such as

Nigeria, South Africa, India, and Jamaica, and the intellectual and literary movements associated with them. Prerequisite: ENG 210 or permission of the department chairperson. Prerequisite recommended: at least two courses in literature or permission of the department chairperson.

DEPARTMENT OF MATHEMATICAL SCIENCES

MATHEMATICAL SCIENCES (MATHS)

Dropped:

MATHS 105. Fundamentals of Intermediate Algebra 1. (2.0)

MATHS 106. Fundamentals of Intermediate Algebra 2. (2.0)

MATHS 135. Mathematics for Business. (4.0)

MATHS 155. Introduction to Actuarial Science (1.0)

New:

MATHS 136. Mathematics for Business. (4.0) Topics in mathematics particularly suited to the needs of business majors, including mathematics of finance, probability, and calculus. Prerequisite: MATHS 111, an appropriate mathematics score on the ACT or SAT, or an appropriate *college algebra* score on the mathematics placement test.

MATHS 159. Introduction to Mathematical Software. (3.0) Basic introduction to mathematical software currently used for solving math-related problems on computers, with an emphasis on group learning and group projects. Includes a regularly scheduled computer laboratory. Prerequisite or Parallel: MATHS 165 or permission of the department chairperson.

MATHS 251. Introduction to Mathematics of Finance. (2.0) Mathematical topics in finance as expected to be useful in financial decision-making in the future. Topics will include compound and simple interest, savings, mortgages, loans, equity, annuities, equations of value, yield rates, amortization, sinking funds, bonds, and current topics in finance as time permits. Emphasis will be on fundamental principles, calculations, and practical applications. Prerequisite: MATHS 111, 112, or equivalent, or permission of the department chairperson.

MATHS 464. Numerical Methods for Differential Equations. (3.0) Numerical methods for solving differential

equations: finite difference and finite element discretization techniques, direct and iterative methods, analysis of convergence and stability, and computer implementation of numerical algorithms. Prerequisite: MATHS 374; MATHS 159 or CS 120, or permission of the department chairperson.

Revised:

MATHS 132. Brief Calculus. (3.0) Brief survey of differential and integral calculus. Emphasizes applications. Prerequisite: MATHS 111.

MATHS 217. Linear Algebra. (4.0) Theory and application of systems of linear equations, vector equations, linear transformations, vector spaces, and inner product spaces. Includes the use of computer software. Prerequisite: MATHS 159 or CS 120; MATHS 162 or 165 or permission of the department chairperson.

MATHS 351. Mathematics of Finance. (4.0) Mathematical theory of compound interest, force of interest, annuities, equations of value, yield rates, amortization, sinking funds, bonds, market derivatives, depreciation, and current topics in finance. Prerequisite: MATHS 251, 165 or permission of the department chairperson. Prerequisite or parallel: MATHS 166.

MATHS 355. Topics in Actuarial Science. (1.0 TO 6.0) Selected topics in actuarial science with emphasis on individualized study for the actuarial exams given by the Society of Actuaries and the Casualty Actuarial Society. A total of 4 hours of credit may be counted as electives for the major in actuarial science. Prerequisite: permission of the department chairperson. A total of 6 hours of credit may be earned.

MATHS 362. Numerical Analysis 1. (3.0) Topics include error analysis, locating roots of equations, interpolation, numerical differentiation and integration, spline functions, and smoothing of data. Includes programming of numerical algorithms. Prerequisite: MATHS 162 or 166; and MATHS 159 or CS 120; or permission of the department chairperson.

MATHS 363. Numerical Analysis 2. (3.0) Topics include direct and iterative methods for solving systems of linear equations, eigenvalue problems; minimization of functions and linear programming. Includes programming of numerical algorithms. Prerequisite: MATHS 217, 362 or permission of the department chairperson.

MATHS 391. Teaching and Learning Mathematics in the Elementary School. (3.0) Development of pedagogical-content knowledge through national and state mathematics standards, curricular materials, instructional

materials and methods, and assessment related to specific topics in elementary school mathematics. Class ideas applied in teaching situations. May be substituted for MATHS 392. Prerequisite: qualifying score on Gateway Examination; MATHS 202 or 203 with a C- or better grade. Admittance to Teacher Education; permission to enroll in 300/400-level professional education courses.

MATHS 392. Teaching Mathematics to Learners with Disabilities. (3.0) Introduction to standards, instructional materials and methods, and assessment, emphasizing how these relate to the teaching of mathematics to learners with disabilities. Class ideas applied in teaching situations. Three one-hour lectures and one one-hour laboratory experience per week. May not be substituted for MATHS 391. Prerequisite: qualifying score on Gateway Examination; MATHS 207 with a C- or better grade or both MATHS 201 and 202 with a C- or better grades. Admittance to Teacher Education; permission to enroll in 300/400-level professional education courses. Open only to special education majors.

MATHS 393. Teaching and Learning Mathematics in the Middle School. (3.0) Introduction to national and state mathematics standards, curricular materials, instructional materials and methods, and assessment related to topics taught in middle school mathematics. Prerequisite: MATHS 250 with a grade of C- or better; permission to enroll in 300/400 level professional education courses.

MATHS 399. Theory and Practice in Middle School Mathematics. (3.0) Combines theory and practice of teaching middle school mathematics. A deeper investigation into student learning and the development of mathematical concepts and procedures. Class ideas applied in teaching situations. Prerequisite: MATHS 250 or 202 with a grade of C- or better; MATHS 393 or 391 with a grade of C- or better; a minimum grade-point average of 2.5 in all mathematics courses in the program; admission to Teacher Education; permission to enroll in 300/400 level professional education courses. Parallel: EDJHM385.

MATHS 457. Actuarial Models 1. (4.0) Loss and frequency distributions, limited expected value, effects of inflation, parametric and non-parametric models, identification procedures for insurance company data, bootstrapping, Bayesian analysis, compound frequency, methods for censored and truncated data, classical and Bayesian credibility models, experience rating. Prerequisite: MATHS 321.

MATHS 458. Actuarial Models 2. (3.0) Basic functions related to actuarial models, common parametric models, maximum likelihood estimation for censored or truncated data, nonparametric estimation, hypothesis testing,

models with co-variables, simulation, and other topics as time permits. Prerequisite: MATHS 321.

MATHS 465. Topics in Computational Mathematics. (1.0 TO 6.0) Selected topics in computational mathematics, with an emphasis on applications of current mathematical software on computers to solve real-world problems. Prerequisite: permission of the department chairperson. A total of 6 hours of credit may be earned.

MATHS 471. Real Analysis 1. (3.0) Properties of the real numbers. Cardinality. Topological properties of metric spaces: compactness, completeness, connectedness. Sequences and series. Continuous functions. Differential calculus of real- and vector-valued functions of one real variable. Prerequisite: MATHS 215, 267, 371; or permission of the department chairperson.

MATHS 472. Real Analysis 2. (3.0) The Riemann-Stieltjes integral and Fundamental Theorem of Calculus. Sequences and series of functions. Differential calculus of functions of several variables. Inverse and implicit function theorems. Extremum problems. Lebesgue integration and comparison with the Riemann integral. Prerequisite: MATHS 471.

DEPARTMENT OF PHYSICS AND ASTRONOMY

APPLIED PHYSICS (APHYS)

Dropped:

APHYS 247. Introduction to Radioactivity. (3.0)

DEPARTMENT OF PHYSIOLOGY AND HEALTH SCIENCE

HEALTH SCIENCE (HSC)

New:

HSC 444. Disease Management for Health Promotion. (3.0) Explores current information about infectious and non-infectious diseases from a non-clinical perspective to support the needs of health education programs in a variety of settings. Prerequisite: junior status.

HSC 496. Advanced Health Communication Media Production. (3.0) An immersive learning experience in which students will work in teams to produce health communication media to meet the needs of health-related

organizations. Pre-production, production, and post-production processes will be used to create a tangible product. Prerequisite: HSC 396 or permission of the instructor.

Revised:

HSC 290. Evaluation and Assessment in School Health. (2.0) Designed as an introduction to evaluation and assessment strategies in school health. Students will examine teacher behavior, classroom management, and design of instructional materials and techniques related to school health; develop tools including rubrics for assessing student work; and participate in related field experience. Prerequisite: HSC 180, 200; EDSEC 150 or SCI 150. Open only to school health majors.

HSC 396. Health Communication Media Production. (2.0) Designed to introduce graphic design and presentation methods with direct application to various health education settings. Students will complete several creative projects using relevant electronic technology and materials. Prerequisite: HSC 363 or 394 or 395.

ANATOMY (ANAT)

Dropped:

ANAT 405. Human Neuroanatomy. (3.0)

PHYSIOLOGY (PHYSL)

New:

PHYSL 215. Human Physiology. (5.0) Study of cell physiology and all human body systems. Body fluid balance, acid-base balance, and temperature regulation are also covered. Group experimentation with recording apparatus. Includes use of animals or animal tissue. Prerequisite: ANAT 201 and course in biology or permission of the department chairperson. Prerequisite recommended: a chemistry course.

Revised:

PHYSL 205. Fundamentals of Human Physiology. (3.0) Human physiology emphasizing major functions of each system. Intended for health science majors, science teaching majors and minors in secondary education, and students entering the fields of radiography, nuclear medicine, and radiation therapy. Includes use of animals or animal tissue. Prerequisite recommended: a course in biological science. Not open to nursing majors,

respiratory therapy majors, or to students who have credit in PHYSL 210 and 211 or 215.

PHYSL 416. Human Toxicology. (3.0) A survey of chemical, physical, zoological, and botanical toxicoses in human health. The implications and methodology of dealing with hazardous substances and poisons will be considered in detail. Prerequisite: BIO 111 or one semester of PHYSL; CHEM 101 or 111 and 112; or permission of the instructor.

ALLIED HEALTH SCIENCE (AHSC)

New:

AHSC 278. Introduction to Radiological Physics. (2.0) Fundamental principles of electromagnetic radiations, mathematics of physics, x-ray properties and their production, radioactivity principles and mechanisms, radiation interactions in matter, and x-ray characteristics. Prerequisite: admission to the clinical phase of the radiation therapy program. Open only to radiation therapy students.

AHSC 279. Radiation Biology and Protection for the Radiation Therapist. (2.0) Study of the somatic and genetic biological effects on humans exposed to ionizing radiations; regulations and procedures for radiological control and safety. Prerequisite: admission to the clinical phase of the radiation therapy program. Open only to radiation therapy students.

Revised:

AHSC 200. Introduction to Patient Care. (2.0) An introduction to the hospital setting and patient care. Will address patient-technologist communications, age specific needs, emergency care, and venipuncture. Prerequisite: admission to the clinical phase of the nuclear medicine technology or radiation therapy programs. Open only to nuclear medicine technology and radiation therapy students.

AHSC 201. Introduction to Radiologic Sciences and Patient Care. (3.0) Introduction to the profession of radiologic science and patient care. Includes information on general nursing and medical care, medical terminology, professional and hospital organizations, clinical education, medical law, and ethics. Prerequisite: admission to the clinical phase of the radiography program. Parallel: AHSC 224, 228, 231. Open only to radiography students.

AHSC 224. Radiographic Procedures 1. (3.0) A comprehensive study of skeletal radiographic procedures including radiographic terminology, procedural

orientation, and an in-depth description of human structure and function. Prerequisite: admission to the clinical phase of the radiography program. Parallel: AHSC 201, 228, 231. Open only to radiography students.

AHSC 225. Radiographic Procedures 2. (4.0) Continuation of AHSC 224, including skeletal radiographic positioning procedures. Prerequisite: AHSC 201, 224, 228, 231. Parallel: AHSC 229, 232. Open only to radiography students.

AHSC 226. Radiographic Procedures 3. (4.0) Continuation of AHSC 225, including pharmacology, contrast media, and other imaging procedures. Prerequisite: AHSC 225, 229, 232. Parallel: AHSC 230, 233. Open only to radiography students.

AHSC 228. Radiographic Principles 1. (3.0) Introduction to radiographic principles including an overview of radiation physics, properties of radiation, biological effects, production and interaction, and radiation biology and protection. Prerequisite: admission to the clinical phase of the radiography program. Parallel: AHSC 201, 224, 231. Open only to radiography students.

AHSC 229. Radiographic Principles 2. (4.0) Continuation of AHSC 228 including the study of radiographic image production, technical factors, photographic, and geometric effects. Prerequisite: AHSC 201, 224, 228, 231. Parallel: AHSC 225, 232. Open only to radiography students.

AHSC 230. Radiographic Principles 3. (4.0) Continuation of AHSC 229 including the study of clinical diseases and their effects on imaging including technical adjustments, image evaluation, and quality control. Prerequisite: AHSC 225, 229, 232. Parallel: AHSC 226, 233. Open only to radiography students.

AHSC 231. Clinical Applications 1. (1.0) Directed learning experiences in radiographic clinical procedures through a rotational system at affiliated clinical education sites. Prerequisite: admission to the clinical phase of the radiography program. Parallel: AHSC 201, 224, 228. Open only to radiography students.

AHSC 232. Clinical Applications 2. (4.0) Directed learning experiences in radiographic clinical procedures through a rotational system at affiliated clinical education sites. Prerequisite: AHSC 201, 224, 228, 231. Parallel: AHSC 225, 229. Open only to radiography students.

AHSC 233. Clinical Applications 3. (4.0) Directed learning experiences in radiographic clinical procedures through a rotational system at affiliated clinical education sites. Prerequisite: AHSC 225, 229, 232. Parallel: AHSC 226, 230. Open only to radiography students.

AHSC 234. Clinical Applications 4. (2.0) Directed learning experiences in radiographic clinical procedures through a rotational system at affiliated clinical education sites. Prerequisite: AHSC 226, 230, 233. Open only to radiography students.

AHSC 245. Clinical Theory and Administration. (5.0) In-depth study of the clinical theory of nuclear medicine and PET technology as it applies to examinations performed in a nuclear medicine clinic. Introduces administrative and record-keeping procedures required by the Nuclear Regulatory Commission in the operation of a nuclear medicine clinic. Prerequisite: admission to the clinical phase of the nuclear medicine technology program. Open only to nuclear medicine technology students.

AHSC 247 (APHYS 247). Introduction to Radioactivity. (3.0) Overview of radiation physics including properties of radiation. Mechanisms and characteristics of nuclear decay and interaction of radiation with matter. Prerequisite: admission to the clinical phase of the nuclear medicine technology program. Open only to nuclear medicine technology students.

AHSC 248. Radiopharmaceuticals. (3.0) Preparation, quality control, and the diagnostic and therapeutic application of radiopharmaceuticals in the nuclear medicine and positron emission tomography clinics. Prerequisite: AHSC 247. Open only to nuclear medicine technology students.

AHSC 249. Radiation Biology and Safety. (2.0) Somatic and genetic effects of radiation and the procedures for radiological control and safety. Prerequisite: AHSC 247. Open only to nuclear medicine technology students.

AHSC 251. Nuclear Medicine Instrumentation. (4.0) Study of the components and performance characteristics of equipment, the mechanisms of detection and measurement of radioactive materials, and descriptive and inductive statistics used in the nuclear medicine clinic. Prerequisite: AHSC 247. Parallel: AHSC 252. Open only to nuclear medicine technology students.

AHSC 280. Orientation to Radiation Therapy. (2.0) Introduction to the equipment, procedures, and terminology of the radiation therapist. Will present material covering functions, responsibilities, and therapeutic treatment. Prerequisite: admission to the clinical phase of the radiation therapy program. Open only to radiation therapy students.

AHSC 282. Radiation Oncology Physics. (3.0) Basic theory of radiation therapy physics covering the fundamental concepts, properties, treatment applications, units, and terms relating to the role of the radiation

therapist. Prerequisite: AHSC 278. Open only to radiation therapy students.

AHSC 283. Oncologic Pathology 1. (3.0) Didactic experience studying the principles of clinical oncology, anatomy, and malignancies. Learning experiences on the etiology, treatment, and prognosis of cancer. Prerequisite: admission to the clinical phase of the radiation therapy program. Open only to radiation therapy students.

AHSC 285. Technical Radiation Oncology 1. (3.0) Basic concepts in clinical applications of patient set-ups, treatment conditions, equipment, new procedures, quality assurance, and geometric considerations. Prerequisite: AHSC 281. Parallel: AHSC 284. Open only to radiation therapy students.

AHSC 287. Technical Radiation Oncology 2. (3.0) Intermediate concepts in clinical applications of patient set-ups, treatment conditions, equipment, new procedures, quality assurance, and geometric considerations. Prerequisite: AHSC 285. Parallel: AHSC 288, 289. Open only to radiation therapy students.

AHSC 288. Treatment Planning and Dosimetry. (3.0) Didactic experience providing the basic concepts of clinical radiation oncology treatment planning and dosimetry. Study fundamental procedures in dose determination, distribution, measurements, and calibration. Prerequisite: AHSC 282. Parallel: AHSC 287, 289. Open only to radiation therapy students.

DEPARTMENT OF POLITICAL SCIENCE

POLITICAL SCIENCE (POLS)

Revised:

POLS 229 (ISOM 229). Information Technology for Paralegals. (3.0) Designed to introduce applications and legal office communications for law office and government. Applications include case management, document scanning and production, time and billing, word processing, spreadsheet, e-mail, voice mail, and CD-ROM and online Internet research for law office professionals. Prerequisite: POLS 242.

DEPARTMENT OF SPEECH PATHOLOGY AND AUDIOLOGY

SPEECH PATHOLOGY AND AUDIOLOGY (SPAA)

Revised:

SPAA 210. Speech Sound Disorders. (3.0) Overview of articulatory phonetics and normal/disordered phonological development. Discussion of structural, neurologic, and environmental conditions contributing to phonologic disability in children. Assessment and treatment procedures for children with phonological disorders. Prerequisite: SPAA 101.

Teachers College

DEPARTMENT OF SPECIAL EDUCATION

SPECIAL EDUCATION (SPCED)

Dropped:

SPCED 671. Practicum in Special Education: Mildly Mentally Handicapped. (1.0 TO 9.0).

SPCED 691. Field Experience in Special Education. (2.0 TO 9.0)

New:

SPCED 611. Advanced Applied Behavior Analysis. (3.0) Building upon an introduction to applied behavior analysis, provides an in-depth treatment of behaviorological principles and advanced coverage of special topics including antecedent interventions, behavioral fluency, development of verbal behavior, and planning and evaluating applied behavioral research. Content aligns with the task list for Board Certified Behavior Analysts. Prerequisite: SPCED 609 or equivalent.

SPCED 683. Practicum in Autism. (1.0 TO 6.0) Covers a variety of settings including schools, residential treatment centers, hospitals, day-cares, public and private clinics, and other settings. Intensive supervision given through individual supervisory meetings. Prerequisite: SPCED 680, 682. A total of 6 hours of credit may be earned.

Revised:

SPCED 609. Introduction to Applied Behavior Analysis. (3.0) Introduces behavioral principles and their applications in schools, developmental centers, and other human service settings. Includes functional behavioral

assessments; selecting, defining, measuring, and graphing behavior; developing ethical behavioral intervention plans; implementing and assuring the fidelity of behavioral-change procedures; and evaluating behavioral outcomes for maintenance, generalization, and social validity. Not open to students who have credit in SPCED 309.

SPCED 610. Behavioral Consultation. (3.0) Training and supervised experience in providing behavioral consultation. Emphasizes the design and implementation of interventions for improving behavior and promoting adaptive skills in a variety of applied settings. Focuses on the analysis of consultant-consultee interactions in problem identification, problem solving, and outcome evaluation. Prerequisite: SPCED 609 or equivalent.

SPCED 638. Practicum: Applied Behavioral Analysis. (1.0 TO 9.0) Provides practical experiences for students in applied behavior analysis or the behavior disorders teaching concentration; supervised by Board Certified Behavior Analysts or qualified special education teachers, respectively. Includes planning, implementing and evaluating behavioral interventions. Prerequisite: permission of the department chairperson. A total of 9 hours of credit may be earned.

**Michael McCauley, Director
Office of Academic Systems**