

**PHYSICIAN ASSISTANT MEDICINE (MPAM)**

**PA 600 INTRODUCTION TO THE PROFESSION (1)** This course is designed to aid the student in the transition into the medical profession and serves as an introduction to professional issues. Areas of discussion include the history of the physician assistant profession, the PA-Physician team, professional organizations, licensing and credentialing, malpractice, professionalism, health care delivery, reimbursement issues including Medicaid and Medicare, biomedical ethics, health literacy, diversity issues, domestic violence, and end of life issues.

**PA 601 MEDICAL PRACTICE I (5)** This is the first in a series of courses designed to provide an intensive study of human diseases and disorders using a lifespan approach, in the areas of clinical medicine including epidemiology, etiology, clinical presentation, progression, therapeutic management, prevention, laboratory medicine, imaging, and prognosis. Emphasis will be on disease processes common to primary care practices and the development of a differential diagnoses and plans based upon the patient's clinical presentation.

**PA 602 MEDICAL PRACTICE II (5)** This is the second in a series of courses designed to provide an intensive study of human diseases and disorders using a lifespan approach in the areas of clinical medicine including epidemiology, etiology, clinical presentation, progression, therapeutic management, prevention, laboratory medicine, imaging and prognosis. Emphasis will be on disease processes common to primary care practices and the development of a differential diagnoses and plans based upon the patient's clinical presentation.

**PA 603 MEDICAL PRACTICE III (5)** This is the third in a series of courses designed to provide an intensive study of human diseases and disorders using a lifespan approach in the areas of clinical medicine including epidemiology, etiology, clinical presentation, progression, therapeutic management, prevention, laboratory medicine, imaging, and prognosis. Emphasis will be on disease processes common to primary care practices, emergency medicine, pediatrics, geriatrics, surgery and the development of a differential diagnoses and plans based upon the patient's clinical presentation.

**PA 604 CRITICAL THINKING IN MEDICINE I (2)** This is the first in a series of courses designed to provide problem-based learning and simulation. This course creates an environment which will allow the students to pursue lines of inquiry, draw upon existing knowledge and experience to develop professional competencies and characteristics of excellent physician assistant students and future clinicians. Students will identify and pursue new learning issues and objectives, and pursue evidence to support their ideas. Each student assumes responsibility for appropriate analysis and delivery of findings to a small group of peers and a faculty facilitator. Each student is engaged as a partner in the learning environment which is critical to the process of discovery and clinical reasoning. Within the simulation experience, students will strengthen their synthesis in critical thinking, communication skills and team approach, to practice evidence-based medicine.

**PA 605 CRITICAL THINKING IN MEDICINE II (2)** *Prerequisite: Successful completion of prior semester of PA course work or program permission.* This course is the second in a series of courses designed to provide problem-based learning and simulation building in medical complexity. This course creates an environment which will allow the students to pursue lines of inquiry, draw upon existing knowledge and experience to develop the professional competencies and characteristics of excellent physician assistant students and future clinicians. Students will identify and pursue new learning issues and objectives, and pursue evidence to support their ideas. Each student assumes responsibility for appropriate analysis and delivery of findings to a small group of peers and a faculty facilitator. Each student is engaged as a partner in the learning environments which is critical to the process of discovery and clinical reasoning. Within the simulation experience, students will strengthen their synthesis in critical thinking, communication skills and team approach to practice evidence-based medicine.

**PA 606 CRITICAL THINKING IN MEDICINE III (2)** *Prerequisite: Successful completion of prior semester of PA course work or program permission.* This course is the third in a series of courses designed to provide problem-based learning and simulation building in medical complexity. This course creates an environment which will allow the students to pursue lines of inquiry, draw upon existing knowledge and experience to develop the professional competencies and characteristics of excellent physician assistants and future clinicians. Students will identify and pursue new learning issues and objectives, and pursue evidence to support their ideas. Each student assumes responsibility for appropriate analysis and delivery of findings to a

## 78 University of Lynchburg

small group of peers and a faculty facilitator. Each student is engaged as a partner in the learning environment which is critical to the process of discovery and clinical reasoning. Within the simulation experience, students will strengthen their synthesis in critical thinking, communication skills and team approach to practice evidence-based medicine.

**PA 608 HUMAN ANATOMY I (4)** This course introduces students to a thorough, clinically relevant knowledge base in human gross anatomy. This course utilizes lectures, interactive, computer programs, and texts are chosen to assist in active laboratory learning. Through critical thinking and active dissection students will learn a foundation of anatomy, which will allow them to build upon their clinical procedural/surgical skills in clinical practice.

**PA 609 HUMAN ANATOMY II (4)** *Prerequisite: Successful completion of prior semester of PA course work or program permission.* This is the second in a series of courses to introduce students to a thorough, clinically relevant knowledge base in human gross anatomy. This course utilizes lectures, interactive, computer programs, and texts are chosen to assist in active laboratory learning. Through critical thinking and active dissection students will learn a foundation of anatomy, which will allow them to build upon their clinical procedural/ surgical skills in clinical practice.

**PA 610 SOCIAL AND CULTURAL ASPECTS OF HEALTHCARE (3)** *Prerequisite: Successful completion of prior semester of PA course work or program permission.* This course is designed with an emphasis on social, cultural, emotional and psychological factors affecting patient care and human relationships. Students will be introduced to the principles of basic communication skills in organizing an interview and developing a working relationship with patients who are stressed. The team approach to comprehensive health care is also discussed.

**PA 611 HEALTH ETHICS (1)** *Prerequisite: Successful completion of prior semester of PA course work or program permission.* This course is designed to give students an appreciation of the basic knowledge and skills in ethical theory and reasoning, professional ethics, and inter-professional approaches to healthcare decision making.

**PA 612 PATHOPHYSIOLOGY I (3)** This course reviews the basic concepts and principles that are essential to comprehending the fundamental mechanisms of human physiology at the cellular, tissue and organ levels; and, the requirements for the maintenance of homeostatic control and identification of pathology. This course lays the foundation for understanding the underlying principles of the etiology, management and prevention of human disease processes.

**PA 613 PATHOPHYSIOLOGY II (3)** *Prerequisite: Successful completion of prior semester of PA course work or program permission.* This is the second in a series of courses which reviews the basic concepts and principles that are essential to comprehending the fundamental mechanisms of human physiology at the cellular, tissue and organ levels; and, the requirements for the maintenance of homeostatic control and identification of pathology. This course lays the foundation for understanding the underlying principles of the etiology, management and prevention of human disease processes.

**PA 614 PHYSICAL DIAGNOSIS I (2)** An introduction to history-taking, physical examination techniques, counseling, documentation and presenting clinical information along with the practical application of these clinical skills are presented in this course. Emphasis is placed on acquiring the skills, knowledge and sensitivity needed to communicate and intervene effectively in a wide variety of patient encounters.

**PA 615 PHYSICAL DIAGNOSIS II (2)** *Prerequisite: Successful completion of prior semester of PA course work or program permission, PA 614.* This is the second in a series of courses designed to facilitate history-taking, physical examination techniques, counseling, documentation and presenting clinical information along with the practical application of these clinical skills. Continued emphasis is placed on acquiring the skills, knowledge and sensitivity needed to communicate and intervene effectively in a wide variety of patient encounters.

**PA 616 PHYSICAL DIAGNOSIS III (2)** *Prerequisite: Successful completion of prior semester of PA course work or program permission, PA 614 PA 615.* This is the third in a series of courses



**PA 655**                                 **INPATIENT MEDICINE SUPERVISED CLINICAL PRACTICE (3)** *Prerequisite: Successful completion of prior semester of PA course work or program permission.* This four-week clinical course will be within an Inpatient Medicine practice. It will include a substantial inpatient experience for the PA student to gain knowledge of the evaluation and treatment of the multiple diseases and conditions of the adult population requiring hospitalization. The focus of this rotation is providing care for patients in the hospital setting with an emphasis on internal medicine.

**PA 660**                                 **GENERAL SURGERY SUPERVISED CLINICAL PRACTICE (3)** *Prerequisite: Successful completion of prior semester of PA course work or program permission.* This four-week clinical course will be within a surgical practice. PA students will participate in Operating Room (OR) cases and hospital consultations as well as clinic based cases and visits in caring for conditions that require surgical management. This will include pre-operative, intra-operative, and post-operative care.

**PA 665**                                 **WOMEN'S HEALTH SUPERVISED CLINICAL PRACTICE (3)** *Prerequisite: Successful completion of prior semester of PA course work or program permission.* This four-week clinical course provides the PA student with experience in managing common gynecologic disorders. The obstetric experience will include routine prenatal and postpartum care. It will include labor & delivery.

**PA 670**                                 **PEDIATRIC MEDICINE SUPERVISED CLINICAL PRACTICE (3)** *Prerequisite: Successful completion of prior semester of PA course work or program permission.* This four-week clinical course will provide the PA student with experience in outpatient and/or in-patient management of pediatric patients. The student will have the opportunity to perform well child exams, problem oriented exams, evaluate common pediatric illnesses, and the care of the newborn and children.

**PA 675**                                 **BEHAVIORAL HEALTH SUPERVISED CLINICAL PRACTICE (3)** *Prerequisite: Successful completion of prior semester of PA course work or program permission.* This four-week clinical course will provide the PA student with a behavioral medicine experience in caring for ambulatory and/or hospitalized patients with psychiatric disorders. The student will perform basic psychiatric evaluations, monitor medications, and support the clinical management plan for patients after psychiatric evaluation and treatment.

**PA 680**                                 **ELECTIVE SUPRVISED CLINICAL PRACTICE (1.5)** *Prerequisite: Successful completion of prior semester of PA course work or program permission.* This two to four-week clinical course will provide the PA student the opportunity to practice in any available medical setting of the student's choice. This may be used to augment a previous clinical experience or explore an area of interest or potential future employment.

**PA 683**                                 **ELECTIVE SUPERVISED CLINICAL PRACTICE (1.5)** *Prerequisite: Successful completion of prior semester of PA course work or program permission.* This two to four-week clinical course will provide the PA student the opportunity to practice in any available medical setting of the student's choice. This may be used to augment a previous clinical experience or explore an area of interest or potential future employment.

**PA 685**                                 **ELECTIVE SUPERVISED CLINICAL PRACTICE (1.5)** *Prerequisite: Successful completion of prior semester of PA course work or program permission.* This two to four-week clinical course will provide the PA student the opportunity to practice in any available medical setting of the student's choice. This may be used to augment a previous clinical experience or explore an area of interest or potential future employment.

**PA 688**                                 **ELECTIVE SUPERVISED CLINICAL PRACTICE (1.5)** *Prerequisite: Successful completion of prior semester of PA course work or program permission.* This two to four-week clinical course will provide the PA student the opportunity to practice in any available medical setting of the student's choice. This may be used to augment a previous clinical experience or explore an area of interest or potential future employment.

**PA 690**                                 **RESEARCH CLERKSHIP (3)** *Prerequisite: Successful completion of prior semester of PA course work or program permission.* This four-week course allows the PA student to participate in research in any medical area of interest in preparation for the student's Master's Project. The student may engage the multiple academic departments of the University of Lynchburg outside of the School of PA Medicine

for this research. Topics for research must be approved by the department chair and must be approved by the appropriate University review board. As an alternative, the student may perform a service learning project during this time as part of the Master's Project.

**PA 695** **MASTER'S RESEARCH (3)** *Prerequisite: Successful completion of prior semester of PA course work or program permission.* This course is a follow up to Medical Informatics and the Research Clerkship. It is designed to allow the PA student to complete a master's degree project under the guidance of faculty or a community advisor. Students may identify an area of medicine, disease process or condition, conduct research, and produce a paper worthy of publication. The student may also perform a learning service project resulting in a publishable paper or product for use in the community. The student will prepare and present an oral presentation on their topic at the conclusion of the year.

**PA 699** **SUMMATIVE COURSE (3)** *Prerequisite: Successful completion of prior semester of PA course work or program permission.* This course, presented near the end of the clinical year, will include intensive board review in preparation for the PANCE, review for clinical skills testing, CV preparation, and interviewing skills. It also includes a final clinical skills exam as well as a cumulative written test, both of which must be successfully passed to graduate from the program.

## DOCTOR OF MEDICAL SCIENCE (DMSC)

**PA 910** **ORGANIZATIONAL BEHAVIOR AND LEADERSHIP (3)** *Prerequisite: Successful completion of prior semester of course work or program permission.* This course examines how the personal characteristics of organizational members influence the effectiveness and productivity of organizations and the job satisfaction of its members. It is believed that organizations are comprised of three levels, the individual, the group or department, and the organization itself. This course will focus on the problems and challenges leaders face in dealing with the individual and the small groups in the organization. Special attention will be given to the role of teams in organizations, the stages of team development, and actions that can support the development of effective teams. The realities of interpersonal processes are considered through examination of the roles of power, politics, and conflict in organizations. The human side of organizational change is then explored with a focus on understanding how and why people react to organizational change and identifying opportunities for enhancing the effective implementation of change.

**PA 920** **HEALTHCARE ADMINISTRATION (3)** *Prerequisite: Successful completion of prior semester of course work or program permission.* This course provides PA with a concrete foundation in healthcare finance, resource allocation, and administration. The goal is to assist students develop practical approaches to improving the excellence and delivery of healthcare. Healthcare decisions are especially apt to have some form of ethical consequence. This course is designed to provide a basic framework from which to consider these consequences, as well as give the healthcare professional tools to develop management styles.

**PA 930** **DISASTER MEDICINE (3)** *Prerequisite: Successful completion of prior semester of course work or program permission.* This course is designed to expose the student to the clinical aspects of disaster medicine by encouraging exploration of the roles of healthcare providers in disasters, the study of clinical situations that occur during disasters, analysis of public, occupational, and environmental health issues, and applying clinical research and epidemiology concepts. Special emphasis will be made to leadership roles in disaster medicine.

**PA 940** **GLOBAL HEALTH ISSUES (3)** *Prerequisite: Successful completion of prior semester of course work or program permission.* This course provides an introduction to important global health issues, including determinants of health, key areas of disease burden, and the role that PAs can play in taking a leadership role in solving these problems. The goal of the course is to expand the PAs understanding of the impact of infectious and chronic diseases on the world's population with particular attention paid to the health status of women, children and the poor. Students will examine case studies of successful global health interventions to understand features of successful programs.

**PA 950** **HEALTHCARE LAW (3)** *Prerequisite: Successful completion of prior semester of course work or program permission.* Students explore relevant healthcare law and policy issues that impact the PA profession and healthcare delivery systems. Emphasis will be placed on leadership roles and professional relationships in the healthcare system

## 82 University of Lynchburg

**PA 960 DOCTORAL RESEARCH (3)** *Prerequisite: Successful completion of prior semester of course work or program permission.* This course will cover key principles of scientific research and performance improvement in PA practice. Research design, methodology, ethics, and critical appraisal of medical publications will be reviewed. This course will emphasize the application of principles of evidence-based research and quality performance to achieve patient-centered clinical outcomes. Students will develop their proposal of their or scholarly project.

**PA 961 SCHOLARLY PROJECT I (1)** *Prerequisite: PA 960 or waiver.* Students will advance the scholarly project proposal and develop implementation procedures

**PA 962 SCHOLARLY PROJECT II (1)** *Prerequisite: PA 961.* Students will execute a scholarly project suitable for publication and/or presentation at PA and other conferences.

**PA 963 SCHOLARLY PROJECT III (1)** *Prerequisite: PA 962.* Students will synthesize findings, draw conclusions, recommendations, and evaluation of their scholarly project in a scholarly report suitable for publication. Students are encouraged to submit for publication and/or present their work at PA and other conferences.

**PA 965 SCHOLARLY PROJECT EXTENSION (1)** *Prerequisite: Program Permission.* This course is intended as an option to provide students with an opportunity to extend their scholarly project. This course can be repeated for credit.

**PA 971 PA PRACTICUM I (4)** *Prerequisite: PA 971.* This course will provide intensive clinical exposure in a chosen clinical specialty to further the student's clinical practice. Students will apply advanced and specialized medical knowledge beyond general practice. Students will begin training within clinical competencies.

**PA 972 PA PRACTICUM II (4)** *Prerequisite: PA 971.* This course is the second session of the PA practicum. This course will continue to provide intensive clinical exposure in a chosen clinical specialty to further the student's clinical practice. Students will apply advanced and specialized medical knowledge beyond general practice by training within clinical competencies.

**PA 973 PA PRACTICUM III (4)** *Prerequisite: PA 972.* This course is the third session of the PA practicum. This course will continue to provide intensive clinical exposure in a chosen clinical specialty to further the student's clinical practice. Students will apply advanced and specialized medical knowledge beyond general practice.

**PA 974 PA PRACTICUM IV (4)** *Prerequisite: PA 973.* This course is the fourth session of the PA practicum. This course will continue to provide intensive clinical exposure in a chosen clinical specialty to further the student's clinical practice. Students will apply advanced and specialized medical knowledge beyond general practice. At the end of this course students will have completed 100% of clinical competencies.

**PA 975 PA EDUCATION PRACTICUM I (4)** *Prerequisite: Admission to the Doctor of Medical Science Program.* This course will provide intensive PA educational exposure in a chosen educational setting to further the student's development as a faculty member. Students will apply program educational experiences to the practicum setting and integrate learning theory and medical education literature to improve their students' learning outcomes through the practicum experience.

**PA 976 PA EDUCATION PRACTICUM II (4)** *Prerequisite: PA 975.* This course is the second session of the PA Education Practicum and provides intensive PA educational exposure in a chosen educational setting to further the student's development as a faculty member. Students will apply program educational experiences to the practicum setting and integrate learning theory and medical education literature to improve their students' learning outcomes through the practicum experience.

**PA 977 PA EDUCATION PRACTICUM III (4)** *Prerequisite: PA 976.* This course is the third session of the PA Education Practicum and provides intensive PA educational exposure in a chosen educational setting to further the student's development as a faculty member. Students will apply program educational experiences to the practicum setting and integrate learning theory and medical education literature to improve

their students' learning outcomes through the practicum experience.

**PA 978 PA EDUCATION PRACTICUM IV (4)** *Prerequisite: PA 977.* This course is the fourth session of the PA Education Practicum and provides intensive PA educational exposure in a chosen educational setting to further the student's development as a faculty member. Students will apply program educational experiences to the practicum setting. At the completion of this course students will summarize their progress toward integrating learning theory and medical education literature to improve their students' learning outcomes through the practicum experience.

**PA 981 PA FELLOWSHIP I (5)** This course will provide intensive clinical exposure in a chosen clinical specialty to further the student's clinical practice. Students will apply advanced and specialized medical knowledge beyond general practice. Students will begin training within clinical competencies.

**PA 982 PA FELLOWSHIP II (5)** *Prerequisite: PA 981.* This course is the second session of the PA fellowship. This course will continue to provide intensive clinical exposure in a chosen clinical specialty to further the student's clinical practice. Students will apply advanced and specialized medical knowledge beyond general practice by training within clinical competencies.

**PA 983 PA FELLOWSHIP III (6)** *Prerequisite: PA 982.* This course is the third session of the PA fellowship. This course will continue to provide intensive clinical exposure in a chosen clinical specialty to further the student's clinical practice. Students will apply advanced and specialized medical knowledge beyond general practice. At the end of this course students will have completed 100% of clinical competencies.

**PA 990 TEACHING AND LEARNING IN PA EDUCATION (3)** *Prerequisite: Admission to the Doctor of Medical Science Program.* This course provides PA faculty with a concrete foundation in best practices of teaching and learning within PA education. The goal is to assist students in the development of practical approaches to improving student learning, engagement, and teaching methods through frameworks grounded in educational theory and/or the medical education literature. The goal of the course is to improve PA faculty teaching effectiveness and their students' learning.

**PA 991 PA PROGRAM DEVELOPMENT, IMPLEMENTATION AND MAINTENANCE (3)** *Prerequisite: Admission to the Doctor of Medical Science Program.* This course provides PA faculty with a concrete foundation in curriculum and administrative best practices for us within PA education. The goal is to assist students in their application of educational theory and/or the medical education literature to the development of practical approaches for developing, implementing and maintaining curricular and program operational components. The goal of the course is to improve PA faculty members effectiveness as members and leader of a PA education team.

**PA 992 PA PROGRAM EVALUATION AND IMPROVMENT (3)** *Prerequisite: Admission to the Doctor of Medical Science Program.* This course provides PA faculty with a concrete foundation in accreditation compliance, program evaluation, and program leadership. The goal is to assist students in their application of educational theory and/or the medical education literature to the development of practical approaches for ensuring compliance with accreditation standards and conducting program evaluation. The goal of the course is to improve PA faculty members understanding of accreditation and program evaluation in order to support their effectiveness as leaders within their PA programs and the profession.

## READING COURSES

**RDNG 625 SURVEY OF EFFECTIVE READING METHODS (3)** Focuses on the foundations of reading and reading development. Topics include children's basic language development as a precursor to reading and as a medium for instruction, methods for assessing and instructing the emergent reader, the beginning reader, and the instructional reader, as well as reading disability.

**RDNG 640 STRATEGIES FOR TEACHING PHONICS, SPELLING, AND VOCABULARY (3)** Examination of theoretical and practical issues surrounding access to print. Advances basic knowledge of reading process, models multi-sensory approach to teaching reading, and develops understanding of phonics, spelling, and vocabulary acquisition.

**RDNG 643 TEACHING WRITING (3)** This course is designed to be a collaborative effort to explore writing as a process, not just a product, and to discover how the teaching of writing involves the teacher as a writer, and the integration of writing across the curriculum, enhancing each discipline within our schools. The course will focus on ways to design and implement writing strategies across the curriculum and grade levels. Students will practice the art of writing in a writing workshop.

**RDNG 644 ADOLESCENT LITERATURE (3)** An advanced course that includes intensive study of selected traditional and contemporary books that appeal to the adolescent reader and/or are about the adolescent. To encourage interdisciplinary uses, a wide variety of texts will be employed. Different approaches to literature genres, modes, and characteristics contained within the literature will be explored.

**RDNG 669 SPECIAL TOPICS IN READING (3)** Offered to allow for subjects that are topical and within the special expertise of the instructor; requires approval of the dean of the College of Education, Leadership Studies, and Counseling. Students may receive credit for up to two special topics courses.

**RDNG 672 READING AND STUDY SKILLS IN THE CONTENT AREA (3)** Methods, materials, and organizational patterns for reading and writing as a means to access text in content area texts and coursework. Reading strategies and study skills are improved to maximize learning for all students through effective use of course materials.

**RDNG 675 CONTEMPORARY ISSUES IN LANGUAGE ARTS INSTRUCTION (3)** Examination of issues and theoretical perspectives in the teaching of language arts in the elementary classroom. The course emphasizes instructional strategies, activities, materials, and techniques to stimulate the acquisition of oral, aural, and written language skills.

**RDNG 680 THE ORGANIZATION AND SUPERVISION OF READING PROGRAMS (3)** *Prerequisite: RDNG 625 and RDNG 640.* Exploration of the organization and supervision of effective reading programs in classrooms, schools, and school districts. Participants design a reading program.

**RDNG 690 ASSESSMENT, DIAGNOSIS, AND REMEDIATION OF READING PROBLEMS (3)** *Prerequisite: RDNG 625 and RDNG 640 or permission of the instructor.* Introduction to basic and advanced assessment procedures used to diagnose reading difficulties of elementary and secondary students and adults. This course acquaints students with a variety of techniques to support and instruct remedial readers. These techniques address decoding, comprehension, writing, and word study across the developmental stage. It includes introduction of intervention techniques for accelerating the reading ability of struggling readers.

**RDNG 691 ASSESSMENT AND DIAGNOSIS PRACTICUM (3)** *Prerequisite: RDNG 690; Co-requisite: RDNG 692.* Participants provide one-on-one or small group instruction for children in the clinical setting and administer initial and ongoing assessments, diagnosing reading issues in students who struggle with reading, so as to make sound instructional decisions during the intervention. Students communicate with parents/guardians (e.g., confirmation of case history in the beginning, parent conferences at the end). All instruction is supervised and includes individualized conferences.

**RDNG 692 CORRECTIVE AND REMEDIAL PRACTICUM (3)** *Prerequisite: RDNG 690; Co-requisite: RDNG 691.* Application of differentiated instruction in a clinical setting to remediate and correct reading problems in disabled readers. Emphasis is on learning and developing appropriate and practical techniques that will meet the needs of specific individuals with specific reading problems.

**RDNG 695 ACTION RESEARCH IN LITERACY EDUCATION (3)** *Prerequisites: RDNG 625, RDNG 640, RDNG 672, RDNG 675 or RDNG 644, and EDHD 609.* Students will conduct original research in literacy, based on efforts to improve the quality of literacy performance in the classroom and/or the school. Students will write a proposal, collect and analyze data, and write a final report suitable for publication and presentation.

## SCIENCE COURSES

**SCIE 670 INDEPENDENT STUDY IN SCIENCE (3)** Provides for the pursuit of individual interest and projects not covered in existing courses and may be repeated if subjects of study vary; requires ap-

proval of the dean of the School of Sciences.

**SCIE 680**                      **SPECIAL TOPICS IN SCIENCE (3)** Offered to allow for subjects that are topical and within the special expertise of the instructor; requires approval of the dean of the School of Sciences.

**SCIE 695**                      **INDIVIDUAL RESEARCH IN SCIENCE (3)** *Prerequisites: Approval of faculty sponsor:* Individual Research in Science provides the student with a supervised opportunity to conduct a field, laboratory, or literary study project. The results may culminate in a formal paper and/or presentation as directed by the supervising instructor. Credit is dependent on the nature of the work but may not exceed three credit hours per semester.

**SCIE 699**                      **SCIENCE EDUCATION INTERNSHIP (3)** *Prerequisites: EDCI 686.* Students who are completing the M.Ed. in Science Education program are often looking for experiential education opportunities that would allow them to gain valuable on-site training. This is especially true for those wishing to gain experience in teaching environments. (e.g., a science museum outreach program), but who do not wish to formally student teach.

### **SPECIAL EDUCATION COURSES**

**SPED 600**                      **SURVEY OF SPECIAL EDUCATION (3)** Provides an overview of the special education field. Particular attention is given to federal and state rules and regulations that govern implementation of special services, basic knowledge relating to disability characteristics and causes, and current trends in special education (e.g., the issue of inclusion and accommodation of special learners in general education settings). Note: This course (or its equivalent) is prerequisite to all other courses in special education.

**SPED 601**                      **DESIGNING EDUCATIONAL INTERVENTIONS FOR STUDENTS WITH DISABILITIES ACCESSING THE GENERAL CURRICULUM (3)** Promotes knowledge and skills related to the design and implementation of effective, educational interventions for students with disabilities who access the general curriculum. Particular attention is given to creating environments that are responsive to the multi-dimensional needs of this population. Students acquire skills/strategies in the areas of IEP development, data-based instruction, and universal design for learning (alternative ways to teach and assess, and provide general curriculum adaptations and modifications).

**SPED 605**                      **CHARACTERISTICS OF INDIVIDUALS WITH INTELLECTUAL AND DEVELOPMENTAL DISABILITIES (3)** Focuses on the nature and needs of children, adolescents, and adults with developmental and intellectual disabilities. Specific attention is given to definitional and identification issues, causes and characteristics, and programmatic needs of individuals across the life span. This course meets state endorsement requirements for special education – general curriculum and special education – adapted curriculum.

**SPED 606**                      **CHARACTERISTICS OF YOUTH WITH LEARNING DISABILITIES AND EMOTIONAL/BEHAVIORAL DISORDERS (3)** Overview of the fields of learning disabilities and emotional/behavioral disorders. The course examines characteristics, theories of etiology, treatment programs, definitions, and legal issues.

**SPED 616**                      **PSYCHOEDUCATIONAL ASSESSMENT (3)** Prepares students to plan, deliver, and report on both formal and informal assessment procedures. Students gain skills specific to norm-referenced, standardized assessment practices that assist in eligibility determinations. Students also gain skills specific to the development and use of curriculum-based, informal assessment procedures that lead to improved instructional and learning outcomes.

**SPED 620**                      **LANGUAGE DEVELOPMENT/INSTRUCTION AND ASSISTIVE TECHNOLOGY (3)** Examines communication problems relevant to individuals with disabilities. Particular attention is given to language development and acquisition, assessment procedures, and language arts instruction including reading and written expression. The course also includes a review of compensatory approaches to academics and basic communication with an emphasis on the use of assistive devices, both basic and electronic.

**SPED 625**                      **POSITIVE BEHAVIORAL INTERVENTIONS (3)** Examines analysis and

application of behavior modification techniques in home and school include basic principles of learning and applied behavior analysis. The course includes the development of functional behavioral assessments and positive behavioral intervention.

**SPED 635 SOCIAL, FUNCTIONAL, AND TRANSITION PROGRAMMING (3)**

Provides for the programming of social and leisure skills, affective development, functional academics, and community transition. The course focuses on lifelong skills and adjustment in and beyond the school setting.

**SPED 644 ACADEMIC INSTRUCTION FOR STUDENTS WITH DISABILITIES**

**(3)** Examines methodology and curriculum for children and youth with learning disabilities, emotional and behavioral disorders, and intellectual disabilities who are served primarily in general curriculum-based programs. Attention is given to a variety of general instructional approaches as well as specific teaching and student-centered strategies within key academic curricular domains, including reading, written language, mathematics, study skills, science, and social studies.

**SPED 651 DESIGNING COMPREHENSIVE, FAMILY-CENTERED PROGRAMS FOR INFANTS AND PRESCHOOL CHILDREN WITH DISABILITIES (3)**

Develops knowledge and skills related to the design and management of comprehensive, family-centered early intervention (EI) and early childhood special education (ECSE) programs. Specific attention is given to a) regulations that govern EI and ECSE programs; b) the design of family-centered Individualized Family Service Plans (IFSPs); and c) the design, management, and evaluation of environments that are child-centered, developmentally appropriate, and naturalistic.

**SPED 653 DEVELOPMENTALLY APPROPRIATE CURRICULUM AND INTERVENTIONS FOR INFANTS AND PRESCHOOL CHILDREN WITH DISABILITIES (3)**

Develops knowledge and skills related to the design and management of developmentally appropriate early intervention (EI) and early childhood special education (ECSE) curriculum and intervention. Specific attention is given to: a) key features of EI and ECSE curriculum across all developmental domains; b) commonly used and research validated EI and ECSE curriculum models; and c) innovative and effective intervention strategies that can be used in a variety of EI and ECSE settings.

**SPED 654 APPLIED BEHAVIOR ANALYSIS: PRINCIPLES, PROCEDURES, AND PHILOSOPHY (3)**

*Prerequisite: Admission to ABA Certificate Program.* Focuses on basic principles and procedures of applied behavior analysis; identification of factors that contribute to behavioral problems and improved performance; and procedures that can be used to minimize behavioral problems, improve performance, teach new behaviors, and increase probability of behaviors occurring under appropriate circumstances.

**SPED 655 APPLIED BEHAVIOR ANALYSIS: EMPIRICAL BASES (3)**

*Prerequisite: SPED 654.* Focuses on basic content of applied behavior analysis. Teaches how to implement behavioral procedures and develop behavioral programs for clients with fundamental behavioral needs.

**SPED 656 APPLIED BEHAVIOR ANALYSIS: ASSESSMENTS AND INTERVENTIONS (3)**

*Prerequisite: Completion of SPED 654 or consent of instructor.* Expands on basic content of applied behavior analysis and teaches how to implement behavioral procedures and develop behavioral programs for clients with fundamental behavioral needs.

**SPED 657 APPLIED BEHAVIOR ANALYSIS: APPLICATIONS (3)**

*Prerequisite: Completion of SPED 654 or consent of instructor.* Expands capability to deal with more complex behavioral situations, enabling ability to relate to more sophisticated professional issues and environments.

**SPED 658 APPLIED BEHAVIOR ANALYSIS: VERBAL BEHAVIOR (3)**

*Prerequisite: Completion of SPED 656 or consent of instructor.* Expands capability to deal with more complex behavioral situations and enables students to relate to more sophisticated professional issues and environments.

**SPED 659 APPLIED BEHAVIOR ANALYSIS: ETHICS AND PROFESSIONAL CONDUCT FOR BEHAVIOR ANALYSIS (3)**

*Prerequisite: Completion of SPED 654 or consent of instructor.* Provides a basis in Virginia Behavior Analyst Licensure law, the Behavior Analyst Certification Board's Professional and Ethical Compliance Code for Behavior Analysts, and professional conduct consistent

with the practice of applied behavior analysis.

**SPED 660 ASSESSMENT OF YOUNG CHILDREN WITH DEVELOPMENTAL DELAYS (3)** Examines approaches to the assessment of young children (ages newborn-5) with disabilities. Attention is given to the use and interpretation of appropriate instruments and specific diagnostic tools in language, social, motor, and self-help domains. Additional focus is given to the multidisciplinary aspects of assessment.

**SPED 662 MEDICAL AND THERAPEUTIC INTERVENTIONS FOR CHILDREN WITH DISABILITIES (3)** Examines appropriate medical, health, and therapy interventions for young children with disabilities with attention to self-care skills, mealtimes, physical and occupational therapy, medical and health management, and sensory systems.

**SPED 665 DAILY LIVING SKILLS FOR STUDENTS WITH SIGNIFICANT DISABILITIES (3)** *Prerequisites: SPED 600, SPED 601, SPED 605.* Provides knowledge about daily living skills needed by students with disabilities in an adaptive curriculum. It will address the medical, sensory, and physical needs of this population. The course will include curricular resources, assessment, materials, and techniques.

**SPED 666 DESIGNING AND IMPLEMENTING CURRICULUM FOR STUDENTS WITH SIGNIFICANT DISABILITIES (3)** *Prerequisites: SPED 600, SPED 601, SPED 605.* Provides knowledge about the varied curricular needs of students with significant disabilities. Also included are designing and implementing curriculum through the use of technology, alternative assessment, IEP development, lesson planning, individualized materials, and strategies.

**SPED 668 INDEPENDENT STUDY – SPECIAL EDUCATION (1, 2, 3)** Offers the opportunity for students to pursue in depth a topic of special interest within Special Education under the supervision of a faculty member. Can be taken more than once.

**SPED 669 SPECIAL TOPICS IN SPECIAL EDUCATION (1, 2, 3)** *Prerequisites: SPED 600 or consent of instructor.* Intensive study of a problem or topic in special education. Topic varies according to the professor and term offered.

**SPED 670 INTRODUCTION TO AUTISM SPECTRUM DISORDER (3)** *Prerequisite: SPED 600 or consent of instructor.* Overview of the nature of autism and related developmental disabilities, research on current trends in characteristics, assessment strategies, and approaches to intervention with an emphasis on school settings.

**SPED 671 INSTRUCTIONAL AND BEHAVIORAL ASSESSMENT AND PROGRAMMING FOR STUDENTS WITH ASD (3)** *Prerequisite: SPED 670.* Covers basic methods of assessment, data collection, and instruction with focus on the areas of communication, social, and behavioral skills and includes the use and interpretation of research-based diagnostic tools, functional behavioral assessment and analysis, and behavioral intervention planning. Training is provided in best practice methods such as discrete trial instruction, social stories, and the use of visual schedules and cueing.

**SPED 672 MEDICAL AND SENSORY ASPECTS OF ASD: COLLABORATION AMONG PARENTS, EDUCATORS, AND RELATED SERVICE PROVIDERS (3)** *Prerequisite: SPED 670.* Overview of medical research on etiology and interventions in clinics, home, and schools. Included are strategies for team building, planning, data-based decision making, and evaluation.

**SPED 675 COLLABORATION IN SPECIAL AND GENERAL EDUCATION (3)** *Prerequisite: 18 hours of graduate coursework in special education or permission of the instructor.* Investigates the issues and practices of educators who deal with families, schools, and community agencies. Attention is given to such issues as integrated services, coordination between general and special educators, teaming family-focused collaboration and community resources, and models of service delivery.

**SPED 680 RESEARCH SEMINAR IN SPECIAL EDUCATION (3)** *Prerequisite: 18 credit hours of graduate coursework including SPED 625.* Provides advanced study of seminal and current research in special education trends including service delivery models, identification, assessment, discipline, education, and behavioral programming and transition. The focus is on disability research across the age range from early

childhood to adulthood. Common research methodologies used within the discipline of special education for both consumers and research practitioners are examined.

**SPED 690 PRACTICUM IN APPLIED BEHAVIOR ANALYSIS (3)** *Prerequisite:* Admission to ABA program course sequence and consent of instructor. Can be taken concurrently with VA ABA Consortium coursework and can be taken more than once. Supervised practicum experience that applies ABA coursework to instruction of children and their families in school and community settings. This course is not required for completion of the VA ABA Consortium course sequence or the University of Lynchburg Applied Behavior Analysis Certificate. Supervised practicum experiences are required to sit for the BCBA examination.

**SPED 691-692, 696, 697, 698 AND 699 INTERNSHIPS IN SPECIAL EDUCATION (3)** Supervised field experience with persons who are disabled. Placement is arranged in a program providing special services. Students should consult their advisors in advance of registration to determine the hours of credit to be earned in the internship. All coursework in special education must be taken prior to or concurrently with the internship. These courses require a mandatory Criminal and Social Services background check conducted at the end of the prior semester at the student's expense.

**SPED 691 INTERNSHIP IN EARLY CHILDHOOD SPECIAL EDUCATION**  
(AGES 0-2 YEARS)

**SPED 692 INTERNSHIP IN EARLY CHILDHOOD SPECIAL EDUCATION**  
(AGES 3-5 YEARS)

**SPED 696 INTERNSHIP IN SPECIAL EDUCATION-GENERAL CURRICULUM**  
(ELEMENTARY)

**SPED 697 INTERNSHIP IN SPECIAL EDUCATION-GENERAL CURRICULUM**  
(SECONDARY)

**SPED 698-699 INTERNSHIP-ADAPTED CURRICULUM (3, 3)**

(Note: SPED 698 provides an elementary experience for three credits and SPED 699 a secondary experience for three credits).

**SPED 694 FIELD EXPERIENCE WITH STUDENTS WITH AUTISM SPECTRUM DISORDER (3)** *Prerequisite:* SPED 600, 670, 671, 672. Field experience assessment and instruction of individuals with ASD. Students demonstrate competence in functional behavioral assessment, behavioral intervention planning, discrete trial instruction, data collection and analysis, and collaboration with parents and professionals.

**SPED 695 ADVANCED APPLICATIONS IN SPECIAL EDUCATION (3)** *Prerequisite:* a minimum of 27 hours of coursework in the program. Capstone course consisting of campus and field-based experiences for students nearing the completion of their MEd program in special education and those who are not seeking an initial teaching license via the University of Lynchburg. Course assignments require students to apply a number of competencies at the advanced level. These competencies are based upon knowledge and skills taught in coursework in the MEd program. This course may be repeated for credit.

### **TEACHER LICENSURE COURSES (NON-DEGREE)**

Courses with the TLIC prefix are offered to assist students in obtaining teacher licensure or to complement their professional training in a specific area. They are not applicable to the credit hour requirements for any specific graduate degree programs.

**TLIC 565 METHODOLOGY OF TEACHING FOREIGN LANGUAGES (3)** A survey of methods and techniques of teaching foreign languages. Course content includes the study of theories of language learning and second-language acquisition, linguistics, classroom techniques, preparation and presentation of teaching materials, testing, use of the language laboratory, and professional bibliographies.