

Educational Leadership and Workforce Development

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The department offers undergraduate courses SEPS 400 and SEPS 408 often taken as part of bachelor's programs in teacher preparation. The department also offers the following general education courses: STEM 110T, STEM 251G, SEPS 223A, and SEPS 203S.

After earning an undergraduate degree, students may be interested in the master's and education specialist degree programs offered in PreK-12 Educational Leadership and Supervision and Higher Education. The department also offers PhD degrees in workforce and organizational development, educational leadership, community college leadership, and higher education leadership. Several licensure/endorsement/certificate areas are available for graduate students. Please refer to the the Graduate Catalog for information on these programs. (<https://catalog.odu.edu/graduate/>)

Bachelor of Science Programs

- Career and Technical Education with a Major in Marketing Education (BS) (<https://catalog.odu.edu/undergraduate/education/educational-leadership-workforce-development/career-technical-education-marketing-bs/>)
- Career and Technical Education with a Major in Technology Education (BS) (<https://catalog.odu.edu/undergraduate/education/educational-leadership-workforce-development/career-technical-education-technology-bs/>)
- Occupational and Technical Studies with a Major in Fashion Merchandising (BS) (<https://catalog.odu.edu/undergraduate/education/educational-leadership-workforce-development/occupational-technical-studies-fashion-merchandising-bs/>)
- Occupational and Technical Studies with a Major in Industrial Technology (BS) (<https://catalog.odu.edu/undergraduate/education/educational-leadership-workforce-development/occupational-technical-studies-industrial-technology-bs/>)
- Occupational and Technical Studies with a Major in Training Specialist (BS) (<https://catalog.odu.edu/undergraduate/education/educational-leadership-workforce-development/occupational-technical-studies-training-specialist-bs/>)

Certificate Program

- Industrial Training Certificate (<https://catalog.odu.edu/undergraduate/education/educational-leadership-workforce-development/industrial-training-certificate/>)

Minors

- Fashion Merchandising Minor (<https://catalog.odu.edu/undergraduate/education/educational-leadership-workforce-development/fashion-merchandising-minor/>)
- Impact of Technology Minor (<https://catalog.odu.edu/undergraduate/education/educational-leadership-workforce-development/impact-technology-minor/>)
- Marketing Education Minor (<https://catalog.odu.edu/undergraduate/education/educational-leadership-workforce-development/marketing-education-minor/>)
- Training and Development Minor (<https://catalog.odu.edu/undergraduate/education/educational-leadership-workforce-development/training-development-minor/>)

Courses

Educational Leadership and Services (ELS)

ELS 496/596 Topics in Education (1-3 Credit Hours)

The College of Education offers selected topics designed to permit small groups of qualified students to work on subjects of mutual interest which, due to their specialized nature, may not be offered regularly.

Prerequisites: permission of the instructor

ELS 497/597 Topics in Education (1-3 Credit Hours)

The College of Education offers selected topics designed to permit small groups of qualified students to work on subjects of mutual interest which, due to their specialized nature, may not be offered regularly.

Prerequisites: permission of the instructor

ELS 498/598 Topics in Education (1-3 Credit Hours)

The College of Education offers selected topics designed to permit small groups of qualified students to work on subjects of mutual interest which, due to their specialized nature, may not be offered regularly.

Prerequisites: permission of the instructor

Foundations of Education (FOUN)

FOUN 101S Learning to Learn (3 Credit Hours)

Learning is essential to human development and is a primary goal of formal schooling. Further, the nature of work is ever changing and the need to adapt to changing environments by learning new skills in new domains is essential for future success. In this educational psychology course, students will focus on the theoretical and empirical study of the science of learning. Students will gain insights into learning processes and achieve a deeper understanding of their own learning, including how to enhance their learning in various contexts.

FOUN 301 Learning and Development (3 Credit Hours)

This course focuses on educational psychology theory and research related to student learning and development. There will be an emphasis on how to incorporate research based principles in designing instruction, motivating students, and promoting a positive classroom climate based on how students learn and develop.

Prerequisites: ENGL 110C

FOUN 302 Assessment of Learning (3 Credit Hours)

This course focuses on exploring and implementing ethical assessment principles in a K-12 setting in order to ensure equity amongst a diverse population of students. Students will discuss and develop assessments for formative and summative purposes. They will analyze and interpret assessment data to measure and promote student success. State assessment programs will be discussed including social justice implications. The purpose of this course is to prepare future educators to analyze instructional situations, identify instructional targets, and determine appropriate assessment tools to monitor and support student learning.

Prerequisites: FOUN 301

Special Education (SPED)

SPED 313 Fundamentals of Human Growth and Development: Birth through Adolescence (3 Credit Hours)

This course contributes to an understanding of the physical, social, emotional, speech and language, and intellectual development of infants, toddlers, children, and adolescents. Furthermore, it promotes the ability to use this understanding in guiding learning experiences and relating meaningfully to preK-12, special education, and secondary education students. The interaction of infants, toddlers, children, and adolescents with economic, social, racial, ethnic, religious, physical, and intellectual differences is explored, as well as developmental issues related to giftedness or disability and the impact of family disruptions, child abuse, and substance abuse.

Prerequisites: junior standing

SPED 400/500 Foundations of Special Education: Legal Aspects and Characteristics (3 Credit Hours)

The course provides an introduction and overview of the field of special education from the perspective that it is a subsection of general education and that the field is in transition by virtue of philosophical, legislative, and programmatic changes. Legal aspects, regulatory requirements, and critical analyses of research are addressed. The course includes a broad overview of the characteristics, identification, instructional needs, and accommodation necessary for creating appropriate educational and vocational environments for students with disabilities.

Prerequisites: junior standing

SPED 402/502 Instructional Design I: Learner Characteristics and Assessment (3 Credit Hours)

The intent of this course is to provide pre-service and in-service teachers with: (a) knowledge of the characteristics of K-12 students with learning differences who are accessing either the general curriculum or the adapted curriculum, and (b) the ability to develop knowledge and skill in the selection, administration, scoring and interpretation of standardized/norm-referenced and criterion-referenced assessments for exceptional learners. Administering formal and informal assessment tools for the development of an IEP are emphasized. The use of assessment data to improve evidence-based instruction and student performance is discussed.

Prerequisites: Junior standing

SPED 403 Directed Field Experience in Special Education (1.5-3 Credit Hours)

This course provides variable hours of direct participation in a community or educational setting with individuals with special needs. The course includes specific skills of program planning, implementation, evaluation and classroom management. Practicum of 45 hours required.

Prerequisites: Satisfactory entry into the undergraduate teacher education program (UTEP)

SPED 404/504 Characteristics and Medical Aspects of Disabling Conditions (3 Credit Hours)

This course reviews medical conditions present among individuals with disabilities and implications for classroom instruction.

Prerequisites: Junior standing

SPED 406/506 Students with Diverse Learning Needs in the General Education Classroom (3 Credit Hours)

This course introduces general education teachers to the legal aspects and educational needs of at-risk students and those with disabilities. Emphasis is on characteristics of children with special needs and procedures for effective academic, behavioral, and social integration of these children in the general education classroom.

Prerequisites: junior standing

SPED 411/511 Classroom and Behavioral Management Techniques for Students with Diverse Needs (3 Credit Hours)

This course addresses classroom management techniques and individual interventions based upon behavioral, cognitive, affective, social, and ecological theory and practice. The course focuses on the field of applied behavior analysis, including best practices in the areas of data collection, program selection, program implementation, and data analysis. Positive behavior management, supports, and functional behavioral assessment for students with diverse learning needs will be emphasized.

Prerequisites: Junior standing or permission of the instructor

SPED 415/515 Instructional Design II: Curricular Procedures and Individualized Education Planning (1.5-3 Credit Hours)

The intent of this course is to provide preservice and in-service teachers with: (a) knowledge of research-based instruction for PreK-12 students with disabilities and those who are gifted; (b) knowledge and skill in using data collection to make decisions about student progress, instruction, program, accommodations and teaching methodology for exceptional learners, and (c) knowledge and skill in planning, developing and implementing individual educational plans and group instruction for diverse exceptional learners who are accessing the general education curriculum and the standards of learning or the adapted education curriculum and the aligned or essentialized standards of learning.

Prerequisites: Satisfactory entry into the undergraduate teacher education program (UTEP)

SPED 417/517 Collaboration and Transitions (3 Credit Hours)

This course addresses the complex issues surrounding families and children with disabilities and transitions across the lifespan, as well as effective collaboration with families and professionals to support inclusion and/or effective early intervention services, educational services, and transition services for students at-risk and students with disabilities. Emphasis is on successful professional collaboration and effective relationships in educational, transition, and family settings.

Prerequisites: Junior standing

SPED 418/518 Instructional Strategies to Meet Diverse Learning Needs in Math (3 Credit Hours)

This course covers instructional strategies necessary to teach mathematics to students with diverse learning needs in elementary and secondary settings. Students will study and apply pedagogy-based research on how learning takes place and strategies for differentiating instruction for the unique needs of diverse learners. Students will address and apply effective research-based methodology and evaluation standards.

Prerequisites: Junior standing

SPED 428/528 Instructional Strategies for Students Accessing the Adapted Curriculum (1.5-3 Credit Hours)

This course addresses the characteristics and instructional strategies of students accessing the adapted curriculum. Emphasis is on assessment, program development, academic, and functional skills instruction. This course addresses the needs of individuals with severe and/or profound multiple disabilities. 45 Hour Practicum

Prerequisites: Junior standing

SPED 432/532 Characteristics of Students with Visual Impairments (3 Credit Hours)

This course provides an overview of the characteristics of and services to persons with visual impairments, including the impact of visual impairment on infants' and children's growth and development, child and adolescent emotional and social development, and family interaction patterns. It considers the educational, conceptual, psycho-social, and physical implications of a visual impairment.

Prerequisites: SPED 400/SPED 500

SPED 433/533 Braille Code (3 Credit Hours)

This course provides instruction in the development, use, and application of the Braille literary code and its implications for educational/literacy programs for students with visual disabilities. Students will develop the skills to read and write contracted and uncontracted Braille, while acquiring instructional methodologies for teaching children who are blind to read and write. Sources of Braille materials for educational purposes are identified.

Prerequisites: Junior standing

Pre- or corequisite: SPED 400/SPED 500 and SPED 432/SPED 532

SPED 434/534 Medical and Educational Implications of Visual Impairments (3 Credit Hours)

Provides an introduction to anatomy and physiology of the visual system and the educational implications of visual pathology. Topics include anatomy of the human eye, normal visual development, pathology of the eye, examination procedures for the identification of visual pathology, and the effects of pathology on visual learning and development. Practicum requires a minimum of 25 hours.

Prerequisites: SPED 400/SPED 500 and SPED 432/SPED 532

SPED 435/535 Orientation and Mobility (2 Credit Hours)

Provides the foundation for understanding the components and essence of orientation and mobility. Establishes how the need for independent travel in the blind population created the field of O&M. Explores the philosophy and history of orientation and mobility including cane instruction, dog guides and methods of travel. Addresses techniques in developing orientation skills and basic mobility instruction. Motor and concept skill development are emphasized. Practicum of 45 hours required.

Prerequisites: Junior standing

Pre- or corequisite: SPED 400/SPED 500 and SPED 432/SPED 532

SPED 436/536 Curriculum and Assessment of Students with Visual Impairments (3 Credit Hours)

Provides students with knowledge and understanding of the educational assessment of students with visual impairments and additional disabilities including deaf-blindness. Students will practice assessing and planning educational programs for students with visual impairments. Addresses assessment of technology for students with visual impairments. Examines determination of learning needs and appropriate learning media, relationship of assessment, IEP development, and placement. Practicum requires a minimum of 25 hours.

Prerequisites: Junior standing

Pre- or corequisite: SPED 400/SPED 500 and SPED 432/SPED 532

SPED 437/537 Assistive Technology for People with Sensory Impairments (3 Credit Hours)

This course is designed for professionals and/or students interested in serving the visually impaired/blind population or hearing impaired/deaf population. It is designed to heighten the awareness of participants to specific technology and resources available to enhance and improve the ability of individuals with visual and hearing impairments to succeed in school, daily living activities and employment. Knowledge and awareness components of this course will be delivered via distance education.

Prerequisites: Junior standing

Pre- or corequisite: SPED 400 or SPED 500 and SPED 432 or SPED 532

SPED 440/540 Assistive Technology for Diverse Students (3 Credit Hours)

This course provides lectures for pre-service and in-service teachers and related service providers of special populations in the use of assistive technology (AT) devices and services, and augmentative alternative communication (AAC) systems for instructional programs and computer applications. Study will involve compliance with federal and state laws, and national and state standards related to providing assistive technology to diverse students.

Prerequisites: Junior standing

SPED 441/541 Teaching Students with Severe Physical and Sensorimotor Disabilities (1.5-3 Credit Hours)

This course reviews techniques for working with students who have severe physical and sensorimotor disabilities. Course emphasis is on proper positioning and handling for students with atypical motor/muscle development who function at developmental levels between birth and five years. Practicum of 45 hours required.

Prerequisites: Junior standing

SPED 460/560 Teaching Preschoolers With Diverse Abilities (1.5-3 Credit Hours)

This course prepares students to create high quality learning environments for preschool children (ages 2-5 years) who have diverse strengths and needs. Students will learn how to access curricula and materials, plan for and provide evidence-based instruction, collect data for progress monitoring, and provide adaptations to the environment to support the development of children with and without disabilities. Programming that addresses multiple areas of development, such as social-emotional, communication, motor, and cognition, will be discussed, and students will complete a 10-hour preschool observation.

Prerequisites: Junior standing

SPED 461/561 Developmental Assessment of Young Children with Diverse Abilities (3 Credit Hours)

This course prepares students to use recommended practices for assessing the development of young children with diverse abilities, ages birth to 5 years, in home and inclusive/classroom-based settings. Course content and discussions address the knowledge and skills needed by early intervention, early childhood, and early childhood special educators when gathering developmental information to determine a child's eligibility, plan intervention and educational activities, and monitor progress across time. Practicum of 45 hours required.

Prerequisites: Junior standing

SPED 467/567 Family-Centered Practices in Early Childhood Intervention (1.5-3 Credit Hours)

This course prepares professionals to partner with families of infants and toddlers (ages birth-three) with developmental delays and disabilities in early intervention programs. Emphasis is placed on the use of family-centered practices that support caregiver and child learning during visits in homes and other community settings. Strategies for collaborating with team members (including the family), writing Individualized Family Service Plans (IFSPs), and providing effective services that facilitate child development during natural family routines and activities will be discussed.

Prerequisites: Junior standing

SPED 469/569 Communication/Language Development/Intervention for Students with Significant Disabilities (3 Credit Hours)

This course examines symbolic and non-symbolic communication/language development and acquisition. Emphasis is on routine-based communication training, communication/language facilitation strategies, augmentative communication systems, and informal/functional communication/language assessment procedures for students in early childhood special education, students with autism, and students with multiple disabilities.

Prerequisites: Junior standing

SPED 483/583 Field Experience Seminar in Special Education (1 Credit Hour)

Explores issues, problems, concerns and processes related to teaching and entering the profession of teaching.

Prerequisites: SPED 313, SPED 400/SPED 500, and SPED 402/SPED 502

Pre- or corequisite: SPED 403

SPED 486/586 Teacher Candidate Internship for Special Endorsement (6-12 Credit Hours)

Seven weeks will be completed at the elementary level and seven weeks will be completed at the middle/secondary level.

Prerequisites: admission to ODU Teacher Education Program; completion of the approved teacher education program in the specific endorsement area; departmental approval

SPED 495/595 Topics in Special Education (1-3 Credit Hours)

This course offers selected topics designed to permit small groups of qualified students to work on subjects of mutual interest in the special education field.

Prerequisites: SPED 400

SPED 497 Independent Study (3 Credit Hours)

Independent study of special topics in special education for undergraduate students.

Prerequisites: Permission of instructor

Stem Education and Professional Studies (SEPS)**SEPS 100 Sales Techniques (3 Credit Hours)**

This is an introductory course that emphasizes the concept of determining customer needs, wants, and desires and matching them to products and services for a long-term sales relationship.

SEPS 102 Advertising and Promotion (3 Credit Hours)

This is an introductory course designed to teach the fundamental product and service promotion processes of planning and producing advertising and promotion campaigns.

SEPS 195 Topics (1-3 Credit Hours)

Topics of current interest in the area of STEM Education and Professional Studies.

SEPS 203S Dress, Culture and Society (3 Credit Hours)

This course is an analysis of dress in cultures around the world while developing an understanding of its relationship to human beings as biological, aesthetic, and social animals. Human beings dress their bodies to communicate identity and to receive personal satisfaction. Students will discover how global fashion, age, gender, ethnicity, and income influence the fashion industry and our lives.

SEPS 208 Retail Merchandising and Buying (3 Credit Hours)

This course introduces students to the fundamentals of retail merchandising and explores retail buyers' skills and responsibilities including identifying customers and vendors, retail mathematics, buying plans, and merchandise control.

SEPS 220 The Fashion Industry (3 Credit Hours)

Course is designed for marketing education and fashion students. It covers fashion as a force which alters patterns of change and growth in the fashion industry to include designers, manufacturers, buyers, retailers, and customers. Students explore the latest trends in style and materials.

SEPS 223A Visual Merchandising and Display (3 Credit Hours)

This course is designed to introduce students to the best practices and effective strategies in visual merchandising. It will provide the basic framework with which prospective merchandisers plan and construct visual displays that enhance the selling of merchandise and ideas.

SEPS 234 Survey of Dress and Costume (3 Credit Hours)

Whether high fashion or low, glitz or grunge, from revolutionary politics to the new machine age, war and depression to growth and prosperity, fashion dress and costume goes hand-in-hand with history. This course examines the evolution of dress and costume and finds innovation at every turn.

SEPS 295 Topics (1 Credit Hour)

Topics of current interest in the area of STEM Education and Professional Studies.

SEPS 297 Observation and Participation (0.5-1 Credit Hours)

Students observe middle and/or high school classes for 30 clock hours. Assist teachers and students in practical settings. Relate principles and theories of education and specialty content to actual practice in the classrooms and schools. Attend seminars related to contemporary school practices.

Prerequisites: sophomore standing

SEPS 302 Workforce Supervision Management (3 Credit Hours)

Explores the skills and knowledge required of successful supervisors: leading, motivating, setting goals, delegating, budgeting, interviewing, negotiating, counseling, coaching, conducting meetings, and handling grievances.

Prerequisites: junior standing or permission of the instructor

SEPS 355 Fashion Consumer Behavior (3 Credit Hours)

This course is designed to enhance a student's understanding of what drives customers' wants and needs for fashion merchandise. Students examine the forces that affect consumer buying behavior and how they relate to the marketing of fashion.

Prerequisites: SEPS 208 and SEPS 220

SEPS 367 Cooperative Education (1-3 Credit Hours)

Student participation for credit based on the academic relevance of the work experience, criteria, and evaluative procedures as formally determined by the department and the Cooperative Education program prior to the semester in which the work experience is to take place.

Prerequisites: approval by the department in accordance with the policy for granting credit for Cooperative Education programs

SEPS 389 Education and Training of Adults (3 Credit Hours)

An in-depth overview of education and training of adults. Attention is given to adult learning theory and strategies for facilitating the learning process. Aspects of the course will focus on helping students understand and visualize jobs and careers in adult education and training.

Prerequisites: junior standing or permission of the instructor

SEPS 395 Topics in Occupational Education (1-3 Credit Hours)

The department offers selected topics designed to permit small groups of qualified students to work on subjects of mutual interest.

Prerequisites: permission of the instructor

SEPS 400/500 Instructional Systems Development (3 Credit Hours)

Students learn how to design and develop classroom instructional materials including career and technical education and training curricula and programs for youths and adults. Skills in this area include the selection and use of materials, including media and computers and evaluation of pupil performance. Training specialist students learn to develop instructional materials using the instructional systems design process. Career and technical education students learn to plan instruction, to implement competency-based and standards-based education, and to modify and use the Virginia career and technical education curriculum guides.

Prerequisites: junior standing

SEPS 401/501 Foundations of Career and Technical Education (3 Credit Hours)

This course is designed to teach career and technical education majors to plan, develop, and administer a comprehensive program of career and technical education for high school students and adults. Students also develop an understanding of the historical and sociological foundations underlying the role, development and organization of public education in the United States.

Prerequisites: junior standing

SEPS 402/502 Instructional Methods in Occupational Studies (3 Credit Hours)

Designed to develop a student's ability to use basic instructional techniques and methods applicable to career and technical education, and adults in business, government, and industrial organizations. It involves videotaped micro-teaching demonstrations and presentations.

Prerequisites: SEPS 400

SEPS 405 Directed Work Experience (2-4 Credit Hours)

Student must be employed the summer prior to his/her senior year in an emphasis-related job approved by the instructor. The student work is supervised by a job supervisor and the course instructor in a cooperative effort. Must complete a job package that describes all aspects of the organization.

Prerequisites: junior standing

SEPS 408/508 Advanced Classroom Issues and Practices in Career and Technical Education (1.5-3 Credit Hours)

An overview of classroom issues and practices for prospective career and technical teachers. The course covers classroom management and safety, communication processes, reading in the content area and child abuse and neglect recognition and intervention. Students learn the legal requirements and alternative teaching strategies for serving students with special needs. Students visit schools for a 30-hour student observation. PRAXIS Subject Area Assessment is a course completion requirement.

Prerequisites: admission to an approved teacher education program

SEPS 409/509 Fashion Forecasting Market Trip (3 Credit Hours)

This is the study of planning and conducting a fashion buying trip to one of the major fashion markets in the United States like the Las Vegas Magic Trade Show. The students envision themselves as buyers in action and learn how trend forecasting and creative presentations help market fashion products and services to trade customers and consumers.

Prerequisites: SEPS 208

SEPS 410/510 The Foreign Fashion Market Trip (3 Credit Hours)

Students plan and conduct a fashion buying trip to a foreign market in Europe or Asia, and learn how to buy merchandise in the global marketplace. The course requires students to go on the trip as well as attend the pre- and post-trip classes.

Prerequisites: SEPS 208

SEPS 415 Advanced Merchandising (3 Credit Hours)

This course is designed for marketing education and fashion students. It includes advanced merchandising math concepts used in the merchandising industry. Topics include pricing and re-pricing merchandise, creating and analyzing six-month plans, maintaining inventory control, and solving problems that are typically experienced in the merchandising field.

Prerequisites: SEPS 208

SEPS 420 Fashion Research (3 Credit Hours)

This course is designed to apply diverse research methods to explore the complex dynamics in fashion. Utilizing an interdisciplinary approach, students will engage in diverse topics in fashion bridging the gap between theory and practice.

Prerequisites: SEPS 208 and SEPS 220

SEPS 422 Fashion Product Development (3 Credit Hours)

Students work step-by-step through the preproduction processes of apparel product development: planning, forecasting, fabricating, developing silhouettes and specifications, pricing, and sourcing. The course demonstrates how these processes must be coordinated to get the right product to retail when consumers want it and at a price they are willing to pay.

Prerequisites: SEPS 208 and SEPS 220

SEPS 424/524 Fashion, Textiles, and Construction Analysis (3 Credit Hours)

This course explores information related to new technological advances in the textile/apparel industry and determines consumer preferences and concepts of fashion product quality. It includes the development of standards for judging qualities of merchandise. Fabrics are examined to determine the value they provide to the apparel and accessories customer.

Prerequisites: junior standing or permission of the instructor

SEPS 427 Fashion Marketing (3 Credit Hours)

This course explains key concepts of fashion marketing and illustrates how they are applied within the fashion industry. Using examples and case studies, students will examine how marketers develop and apply strategies that meet consumer needs for fashion products.

Prerequisites: SEPS 208 and SEPS 220

SEPS 431/531 Web-Based Organization for Fashion (3 Credit Hours)

This course provides the basic communications foundations needed to conceive, plan, develop, implement, and maintain a Web-based organization for fashion. Upon completion, students will understand what is required to plan, launch and maintain a successful online venture, limited only by the willingness of the student to explore these technological advances.

Prerequisites: STEM 251G

SEPS 435/535 International Retailing (3 Credit Hours)

This course examines globalization and the development of an integrated global economy. Primary emphasis is placed on the strategies for successful global business expansion for retailers in international markets.

Prerequisites: SEPS 220 or SEPS 208

SEPS 440/540 Fashion Global Sourcing/Supply Chain Management (3 Credit Hours)

This course examines the role of global sourcing in the strategic positioning of retailers in the global economy. Emphasis is placed on economic, political, logistical, and ethical factors affecting world trade and global sourcing decisions.

Prerequisites: SEPS 220 or SEPS 208

SEPS 450/550 Assessment, Evaluation and Improvement (3 Credit Hours)

This course prepares training and educational professionals to plan for and conduct assessments to use in planning instructional programs, evaluate individual learning, monitor student progress, measure program effectiveness and efficiency, and evaluate the return on investments of training courses and programs.

Prerequisites: junior standing

SEPS 456 E-Commerce and Social Media in Fashion (3 Credit Hours)

This course is designed to understand the expanding fields of e-commerce and social media. It will focus on examining features available in social media and the web/mobile technologies and their ability to improve fashion marketing strategies.

Prerequisites: SEPS 208 and SEPS 220

SEPS 480 Senior Project: Merchandise Retailing (3 Credit Hours)

A senior capstone course in which fashion and business knowledge and skills are applied to plan and implement a merchandise retailing business. Students must submit a professional quality written report and present results to a panel of consultants. Course to be taken final semester before graduation.

Prerequisites: Instructor permission

SEPS 481 Career and Professional Development (3 Credit Hours)

To provide the senior-level student majoring in occupational and technical studies with the skills and techniques necessary to bridge the gap from college to career. Focus is on the generation of a professional portfolio and experiential learning that will transfer into today's job market. This course should be taken in the final semester before graduation.

Prerequisites: Junior standing

SEPS 484/584 Student Teaching Mentored (6-12 Credit Hours)

Classroom placement in school systems for students to apply content and methodologies. The student is mentored by a school mentor and university faculty. This course is for newly hired teachers on provisional contracts.

Prerequisites: completion of the approved teacher education program in the major area, departmental approval, and permission of the director of teacher education services; passing scores on PRAXIS I or State Board of Education-approved SAT or ACT scores and passing scores on the appropriate PRAXIS II content examination required

SEPS 485 Student Teaching (6-12 Credit Hours)

Five days per week, full semester. Available for pass/fail grading only.

Prerequisites: completion of the approved teacher education program in the major area, departmental approval, passing scores on PRAXIS I or State Board of Education-approved SAT or ACT scores, passing scores on the appropriate PRAXIS II content examination, and permission of the director of teacher education services

SEPS 486/586 Middle School Student Teaching for Technical Education (6 Credit Hours)

Classroom placement for student teaching in a middle school technology laboratory. Students apply content and methodology under the supervision of a cooperating teacher and university faculty member. Available for pass/fail grading only.

Prerequisites: SEPS 408, SPED 313, TLED 408 and SEPS 450; or SEPS 508, SEPS 596, STEM 730, SEPS 788, TLED 608, READ 680 for graduate students; passing scores on PRAXIS I or State Board of Education-approved SAT or ACT scores and passing scores on the appropriate PRAXIS II content examination are required

SEPS 495/595 Topics in Occupational Education (1-3 Credit Hours)

The department offers selected topics designed to permit small groups of qualified students to work in subjects of mutual interest which, due to their specialized nature, may not be offered regularly.

Prerequisites: permission of the instructor

SEPS 496/596 Topics in Career and Technical Education (1-3 Credit Hours)

The department offers selected topics designed to permit small groups of qualified students to work in subjects of mutual interest which, due to their specialized nature, may not be offered regularly.

Prerequisites: permission of the instructor

SEPS 497/597 Independent Study in Occupational Education (1-6 Credit Hours)

Independent study.

Prerequisites: permission of the instructor

SEPS 498 Independent Study in Occupational Education (1-6 Credit Hours)

Independent study.

Prerequisites: permission of the instructor

Science, Technology, Engineering, and Mathematics Education (STEM)

STEM 103 Foundations of STEM Teaching: An Inquiry-Based Approach (2 Credit Hours)

In this introductory STEM teacher preparation course, students delve into the 5-E Model of inquiry-based lesson design within real classroom settings. Guided by mentors and experienced master teachers, students actively engage in authentic hands-on experiences in elementary and middle school classes. Throughout the course, they develop essential skills in effective lesson design, questioning strategies, and the integration of educational technologies. Students are also introduced to mathematics or science curricula, with a focus on developing pre- and post-assessment instruments, analyzing student work, and honing classroom management skills.

STEM 110T Technology and Your World (3 Credit Hours)

An overview of the resources and systems of technology. Emphasis is on impacts that technology has on individuals and their careers. Activities explore the evolution of technology, its major systems and their impact on individuals and their careers.

STEM 201 Knowing and Learning in STEM Education (3 Credit Hours)

This course is designed to expand the students' understanding of current theories of learning and conceptual development in STEM. Students will investigate theories of knowing and learning in STEM and implications for teaching secondary mathematics and science. Students will examine their own assumptions about learning as well as critically examine the needs of a diverse student population in the classroom. Students are expected to independently register for and take the Praxis I examination while enrolled in this course.

Pre- or corequisite: STEM 101 or STEM 102 or STEM 103

STEM 202 Classroom Interactions in STEM Education (3 Credit Hours)

This course provides students with an overview of principles for teaching middle and secondary school mathematics or science through an exploration of the role of content, pedagogy, curriculum and technology as they promote learning and impact equity. Students are introduced to ways in which curriculum and technology are used in the classroom to build interrelationships among teachers and students. Frameworks for teaching students of diverse backgrounds equitably are emphasized in the course. A field component that consists of observations and teaching in the high school classroom is included.

Prerequisites: grade of C or better in STEM 101 and STEM 102, or a C or better in STEM 103

Pre- or corequisite: STEM 201

STEM 221 Industrial Materials (3 Credit Hours)

A study of materials used by industry to produce products. Emphasis is on the study of ceramics, plastics, composites, and biotechnological materials. Students learn materials identification, use and processing.

STEM 231 Materials and Processes Technology (3 Credit Hours)

A study of the production processes used with metallic and forest product materials. Industrial resources, their location, extraction, and processing into standard stocks are also covered. Students learn properties, uses and processing of metal and wood materials.

STEM 241 Energy Systems: Basic Electricity (3 Credit Hours)

A study of direct and alternating current and its use in contemporary technology. Activities include experiments and projects to supplement the theory of electricity.

STEM 242 Technological Systems Control (3 Credit Hours)

Students will develop an understanding of systems control technology for application to energy and power, manufacturing, processing and transportation systems. Emphasis will be placed on research and development, creativity and experimentation, and trouble shooting in designing control systems.

STEM 251G Computer Literacy: Communication and Information (3 Credit Hours)

A guided review of communication technology and information sources to help students discern between reliable and unreliable sources and techniques. Students develop skills in computer applications, information retrieval, filtering and analyzing data, and formatting and presenting information.

STEM 320 Manufacturing and Construction Technology (3 Credit Hours)

A study of production processes used in manufacturing and construction systems. Students will research and design manufactured products for mass production and constructed products for building. The social, cultural, environmental and economic impacts of manufacturing and constructed products on society are discussed.

Prerequisites: STEM 221, STEM 231 or permission of instructor

STEM 321 Manufacturing Technology (3 Credit Hours)

A study of the production processes used in manufacturing systems. Emphasis is placed upon planning, organizing and principles of manufacturing. Students research and design enterprise systems for mass production. Emphasis is on manufacturing design requirements and the social, cultural, and economic impacts of manufactured products on society and the environment.

Prerequisites: STEM 221, STEM 231 or permission of instructor

STEM 330 Medical, Agricultural, and Biological Technologies (3 Credit Hours)

A course for technology education majors that studies technological systems related to medical and food processing technologies. Students learn the basis of these technologies and complete activities that integrate the content with processes and products found in our technological world.

Prerequisites: junior standing or permission of department

STEM 350 Communication Technology Processes (3 Credit Hours)

The study of communication design principles and techniques for technology education. Emphasis is placed on the skills and equipment used in design, production, and distribution of communications. Print and electronic media are explored through technical illustration, video, audio, and other specialty processes of communications.

Prerequisites: STEM 251G

STEM 351 Communication Technology (3 Credit Hours)

A study of the development and impact of communication technology. Emphasis is placed on the integration of technical skills to produce information-based products such as print and telecommunications media.

Prerequisites: junior standing or permission of the instructor

STEM 360 Energy, Power, and Transportation Technologies (3 Credit Hours)

Study of the development of energy, power, and transportation systems and the movement of energy, power, people, and cargo. Areas of concern include vehicle systems design and support systems.

Prerequisites: junior standing or permission of the instructor

STEM 365 Safety and OSHA Certification (3 Credit Hours)

This course introduces safety programs used in the workplace and to increase the safety environment at work. The course covers four key topics: preliminary hazard analysis, failure modes and effects analysis, and OSHA hazard analysis and safety review requirements, which leads to an OSHA 10 Certificate.

Prerequisites: Junior status

STEM 367 Cooperative Education (1-3 Credit Hours)

Available for pass/fail grading only. Student participation for credit based on the academic relevance of the work experience, criteria, and evaluative procedures as formally determined by the department and the Cooperative Education program prior to the semester in which the work experience is to take place.

Prerequisites: Approval by department is required; Additional support may be provided by the Monarch Internship and Co-Op Office in the semester prior to enrollment

STEM 370T Technology and Society (3 Credit Hours)

A multidisciplinary course designed to provide insight into the fundamental, historical, and contemporary nature of technology as an area of human knowledge. Attention is given to the positive and negative aspects of technology and how they affect society. (This is a writing intensive course.)

Prerequisites: grade of C or better in ENGL 211C or ENGL 221C or ENGL 231C; junior standing or permission of the instructor

STEM 382 Industrial Design (3 Credit Hours)

Students will analyze and design products representative of today's industrial technological society. Emphasis will be placed upon design methodology, aesthetic value, and design thinking.

Prerequisites: junior standing

STEM 401 Project Based Instruction in STEM Education (3 Credit Hours)

Through a dynamic process of investigation and collaboration, students aim to master techniques for project-based investigations in STEM classrooms, and teach project-based lessons in the secondary classroom. Students work in teams to formulate questions, make predictions, design investigations, collect and analyze data, make products and share ideas. The use of assessments to improve student learning is emphasized in the course. This course includes a field component that consists of two observation days and three teaching days in a secondary classroom.

Prerequisites: STEM 201 and STEM 202

STEM 402 Perspectives on STEM (3 Credit Hours)

This course explores the historical, social, and philosophical implications of mathematics and science through investigations of significant episodes in their history. Students are brought to understand that science and mathematics are not merely body of facts, theories, and techniques but involve diverse processes by which they are continually generated and reformulated.

Prerequisites: Junior standing, admission to the MonarchTeach program plus 12 credit hours of science or math courses, and STEM 401

Pre- or corequisite: STEM 485

STEM 433/533 Developing Instructional Strategies PreK-6: Mathematics (3 Credit Hours)

Following a theory into practice philosophy, students explore, develop, and use instructional strategies, materials, technologies, and activities to promote children's development of attitudes, behaviors, and concepts in mathematics in grades PreK-6 in support of NCTM national instructional standards and the Virginia Standards of Learning.

Prerequisites: TLED 326, and Junior standing

Corequisites: STEM 434

STEM 434/534 Developing Instructional Strategies PreK-6: Science (3 Credit Hours)

Following a theory into practice philosophy, students explore, develop, and use instructional strategies, materials, technologies, and activities to promote children's development of attitudes, behaviors, and concepts in science in grades PreK-6 in support of AAAS national instructional standards and the Virginia Standards of Learning.

Prerequisites: TLED 326 and Junior standing

Corequisites: TLED 478

STEM 485 Apprentice Teaching (9 Credit Hours)

Internship in school. Available for pass/fail grading only. Offers prospective teacher candidates a culminating experience that provides them with the tools needed for their first teaching jobs. Students are immersed in a local secondary school for 10 consecutive weeks and experience the expectations, processes, and rewards of teaching. As part of their Apprentice Teaching experience, candidates will be required to attend a one hour weekly seminar that will bring them together with master teachers to share experiences and to explore issues, problems, concerns, and processes related to their teaching experiences and to entering the profession of teaching.

Prerequisites: Completion of all course work in the MonarchTeach professional development sequence program and BIOL 468W or CHEM 468 or OEAS 468W or PHYS 468W or SCI 468, passing scores on PRAXIS I or equivalent SAT or ACT scores as established by VA Board of Education, passing scores on the appropriate PRAXIS II content examination and the Virginia Communication and Literacy Assessment, departmental approval, minimum major and overall GPA of at least 2.75 and a criminal background check

Corequisites: STEM 402

STEM 495/595 Topics (1-3 Credit Hours)

The advanced study of selected topics designed to permit small groups of qualified students to work on subjects of mutual interest which, due to their specialized nature, may not be offered regularly. These courses will appear in the course schedule.

Prerequisites: permission of the instructor