Art Education (ART)

The M.Ed. candidate who wishes to specialize in art must present an artwork portfolio to be reviewed by the graduate art faculty. A positive evaluation is required for admission to the program.

600  Art History I/Walter Anderson. Three hours. In-depth discussion of the life and works of Walter Anderson. Papers and seminar type discussions are required. Research will be conducted through the primary resources of the Walter Anderson Museum.

601  Art History I/Mississippi Coast Artists. Three hours. In-depth discussion of the life and works of Walter Anderson, Dusti Bonge, and George Ohr. Research will be conducted through discussion with primary resources of the Anderson family and viewing of works available through the Anderson Museum, George Ohr Museum, and family archives.

610  Painting Processes and Applications in Education. Three hours. Individual studio work in painting with media process, subject matter, and developmental learning application for art curriculum development.

611  Drawing Processes and Applications in Education. Three hours. Individual studio work in drawing with media process and developmental learning application for art programs.

630  Applied Computer Graphic Design in Art Education: Photoshop. Three hours. Introduction to the application of desktop publishing software, Photoshop. Through practical study of the current Photoshop, this introductory course will provide a solid understanding of the various technical capabilities as it applies to the classroom instruction. From scanning to rendering, the course will cover this most popular software program's vast capabilities. Prerequisite: A working computer knowledge.

631  Applied Graphic Design in Art Education: Graphic Illustration. Three hours. Traditional painting and drawing skills will be emphasized as they apply to graphic illustration as visual problem solving. The creative process is explored in depth as the student prepares an illustration from the conceptual thumbnail stage to a finished product.

649  Independent Study. Three hours. Individual research and study under the guidance of a graduate faculty member.

660  Issues and Trends in Art Education. Three hours. A course designed to research recent developments in art education including the aims, philosophies, methods, content, and problems related to the field.

680  Research in Art Education. Three hours. A course designed to help the student plan and carry out a research project. Specific course content will be designed to meet the research needs of the individual student. Prerequisite: Education 620, Introduction to Research.

690  Art Workshop. Three hours. Special topic courses to be named when offered.

691  Seminar in Art Education: Special topics. Three hours. Selected topics, content, and teaching methods by guest lecturers and graduate faculty.
Biology (BIO)

The department of biological sciences, in support of the Master of Education degree, offers a graduate curriculum that provides students with an in-depth study of the areas of environmental biology and molecular biology. Courses emphasize the current state of knowledge and theory within these fields, as well as methods of translating this information into classroom-friendly forms. M.Ed. candidates intending to specialize in biology should have a strong background in the discipline. The student's undergraduate coursework should include such areas as ecology, botany, zoology, genetics, cell biology, and/or vertebrate biology. Graduate classes in biology are typically offered on a rotation; academic advisors will assist each student in the timely completion of the degree.

531  **Ichthyology.** Four hours. An introduction to the study of fishes. This course covers the anatomy, physiology, ecology, and evolutionary relationships of these vertebrates. A one semester laboratory/field/collection experience is included.

532  **Herpetology.** Four hours. An introduction to the anatomy, physiology, ecology, and evolutionary relationships of amphibians and reptiles. A one semester hour laboratory/field/collection experience is included.

601  **Applications of the Scientific Method.** Three hours. An introduction to the philosophy and practice of the scientific method, with applications to teaching science. Analysis of the current scientific literature will be emphasized in this course.

602  **Systematics.** Three hours. A survey of the historical and modern classification of organisms into groups based on their phylogenetic relationships.

610  **Environmental Impacts.** Three hours. A study of environments impacted by human activities. Methods that federal and state governments employ to regulate these impacts and options for restricting the long term impact of these environmental changes are covered.

611  **Microbial Ecology.** Three hours. A survey of current topics in microbial ecology, including microbial diversity, microbial interactions within communities, and microbe-mediated nutrient cycling in the biosphere.

612  **Recombinant DNA and Society.** Three hours. A course exploring the history, development, and impact of recombinant DNA technologies on society. Current applications of recombinant DNA technology will be examined.

620  **Biology of Endangered Species.** Four hours. The biology of populations impacted by human-induced changes to environments. The design and implementation of long-term management practices are discussed. A one semester-hour lab which includes trips to visit managed populations is included.

625  **PCR Theory and Applications.** Four hours. A course exploring the theoretical and practical aspects of PCR, including current methods and their applications. A one semester-hour lab is included.

630  **Population and Community Ecology.** Four hours. A survey of the important concepts and theories in population and community ecology. Methods of collecting and analyzing data are presented. A one semester-hour lab that includes field trips and data collection is included.
635 **Genomics.** Four hours. A survey of current concepts and methods in genomics and bioinformatics. Analysis of recent and ongoing public genomics projects will be an integral part of the course. Special attention will be given to current research on the human genome. A one semester-hour lab is included.

640 **Animal Behavior.** Four hours. A survey of the field of animal behavior with emphasis on proximate/ultimate causes, predator-prey interactions, social interactions, foraging, migration, and parental care. A one semester-hour lab which includes data collection and analysis is included.

645 **Proteomics.** Four hours. An introduction to the concepts and methods of proteomics. Analysis of recent and ongoing public proteomics projects will be an integral part of the course. A one semester-hour lab is included.

650 **Mississippi Flora.** Four hours. A survey of both natural and introduced plants found in Mississippi. The habitat requirements of various plant species and keys used to identify plants are covered. A one semester-hour lab involving field trips to natural areas is included.

698 **Proposal Preparation and Literature Research.** Three hours. This course requires that a student complete a research proposal that includes a review of relevant literature.

699 **Thesis Research.** Three hours. This course requires that a student complete a research project and complete a thesis.

**Education (EDU)**

501 **The Teacher’s Pedagogical Performance Analysis by Self-Study.** One hour. A course designed to implement theory as well as foster professional growth and development through teacher pedagogical performance self-study. Emphasis is placed on the importance of informed decision-making and reflection in relation to classroom management, evaluation, and pedagogical skills and planning.

502 **The Teacher’s Performance Self-Study through Student Engagement.** One hour. This course is designed to implement theory and study of teacher-student engagement (actively engaged with content, time on task) in the classroom through self-study. Emphasis is placed on the importance of informed decision-making and reflection in relation to teacher-student active engagement.

503 **The Teacher’s Performance Self-Study through Student Learning.** One hour. This course is designed to implement theory and foster professional growth and development, through the study of student learning. Through this course, the first year teacher will work with assessment data to improve instruction and mastery in the classroom. Emphasis is placed on the importance of informed decision-making and reflection in relation to student learning and pedagogical skills, curriculum and planning.

572 **Survey of Exceptional Children.** Three hours. A study of exceptionalities from the gifted to the profoundly handicapped. This course is a prerequisite for the mildly/moderately disabled concentration. (May not be taken for graduate credit if course was taken at undergraduate level.)
574 Reading in the Middle and Secondary School. Three hours. The development of reading skills in the content areas. Emphasis on helping the middle and secondary school student read more effectively. (May not be taken for graduate credit if course was taken at undergraduate level.) This class may be online enhanced.

575 Teacher Induction. Three hours. A course designed to provide entry educators with effective research-based strategies for managing the learning environment, for using appropriate teaching strategies, and for establishing effective communication skills in a school setting. The course extends for more than one trimester with collaboration between the school district and university. The student registers only one term but has to cross-over terms to complete requirements.

601 Social Studies in the Elementary School. Three hours. The study of research and techniques for teaching social studies as an integrated approach is emphasized.

602 Trends in Children's Literature. Three hours. A survey of children's literature and current techniques for using literature in all areas of the curriculum.

603 Seminar in Early Childhood Education. Three hours. A study of curricula trends and issues in early childhood education. Emphasis is placed on developmentally appropriate curriculum and practice, current research, and organization and evaluation of learning experiences for the young child.

606 Integration of Content Curriculum. Three hours. Components from social studies, science and mathematics in the elementary school will be included. Integrating each of these subjects through discovery, hands-on experiences and problem-solving is emphasized. The scope and sequence of the elementary curriculum is examined with an emphasis placed on the development of concepts and generalizations appropriate for the elementary child. Prerequisite: EDU 640. This class may be online enhanced.

607 Elementary School Mathematics. Three hours. A study of current research and methodology for teaching mathematics in the elementary school. Emphasis is placed on incorporating current NCTM standards in the classroom.

608 Multiple Intelligences. Three hours. An examination of the theories of multiple intelligences, brain-based learning, and learning styles. The influence of these theories on the concepts of creativity, metacognition, and critical thinking is applied to classroom practice.

609 Science in the Elementary School. Three hours. Trends, innovations, and research for teaching life science and physical science in the elementary school are explored.

611 Current Trends in Reading. Three hours. Current research related to the effective teaching of reading in the elementary school is explored.

615 Language Arts in the Elementary School. Three hours. The development of communication skills and concepts is explored through research and practical experiences.

616 Art in the Elementary School. Three hours. Art activities and materials which stimulate thought processes and development of children from one stage of growth to another. The analysis of successful teaching activities and ways relationships between art and other subjects within the school curriculum are explored.
617 **Multicultural Education.** Three hours. An examination of strategies and resources for teaching students of diverse cultural backgrounds. The development of units and activities exploring multicultural topics is required.

620 **Teacher as Researcher.** Three hours. The study of methodology and interpretation of educational research which acquaints the student with various techniques of research and the use in educational endeavors.

621 **Theories of Learning.** Three hours. An in-depth study of learning theories, cognitive development, and current topics related to appropriate educational classroom practice. Same as PSY 621. This class may be online enhanced.

625 **Technology in Education.** Three hours. A study of the use of computers and other technology in the classroom. The student is given hands-on experiences using technology including understanding of the Internet. This class may be online enhanced.

626 **Cooperative Learning.** Three hours. A study of various forms of cooperative learning structures that can be implemented in all curriculum areas.

627 **Performance Assessment.** Three hours. This course will examine theory, practice, and strategies related to assessing student achievement in the contemporary classroom. This class may be online enhanced.

628 **Direction and Supervision of Student Teachers.** Three hours. This course is designed to train prospective supervising teachers to be knowledgeable mentors who understand how to train the "safe practitioner." The class focuses attention on each aspect of the teaching/learning experience and environment. Case studies are also studied and discussed that explore diverse situations in urban, suburban, and rural schools.

630 **Historical and Philosophical Foundations of Education.** Three hours. This course is a survey of the development of educational systems and philosophies from ancient times to the present.

635 **Internship.** Six hours in increments of two. Students will be supervised by a university faculty member in an accredited school where they are employed. Students are required to attend scheduled seminars which will include research and discussion on current educational issues related to the classroom teacher. The internship will last for a full academic year, with students entering in the fall trimester and continuing the internship in cohort groups through the spring trimester.

636 **Reading and Writing Across the Curriculum.** Three hours. An introduction to specific principles and practices of integrating reading/writing across the curriculum with emphasis placed upon an awareness of balancing the process and the product, strategies for using the approach and assessment. This class may be online enhanced.

637 **Advanced Diagnosis of Reading and Writing Difficulties.** Three hours. This course provides specific knowledge in the assessment of the reading and writing abilities of elementary students. An emphasis is placed on the various causal factors which inhibit the student's developmental processes of learning to read and write effectively and strategically, and an understanding of these factors might enable a teacher to develop and implement a program of prescriptive instruction. This class may be online enhanced.
640 Curricula Planning. Three hours. A survey of general curriculum development with emphasis on current practices in curriculum design and organization, evaluation, curriculum materials, and curriculum development including instructional objectives.

642 Home-School-Community Relations: Working With Parents. Three hours. Current research regarding parent involvement programs, parent education, parent-teacher conferences, using community resources, and current topics are explored.

646 Secondary Methods. Three hours. An in-depth study of current management, instructional and evaluation processes and practices within secondary schools. Methods and problems related to teaching and learning in the student's major field will be emphasized.

651 The Gifted Child.* Three hours. A study of the social, emotional, physical, and intellectual characteristics of the gifted child, including methods of identifying the gifted child.

652 Teaching the Gifted Child.* Three hours. A study of the programs, curricula, methodologies, media and materials for the education of the gifted child.

653 Curricula Development for the Gifted.* Three hours. This course focuses on the development of modules for advanced placement classes and writing/choosing appropriate curricula for elementary or secondary gifted children.

654 Trends in Gifted Education and Practicum.* Three hours. Through research and discussion, the student develops understanding of problems and current trends in gifted education. Students work with gifted students in a public school or clinical setting.

655 Curriculum for Artistically and Creatively Gifted.* Three hours. An examination of research and practice dealing with the concept of artistic talent and implications for curricula in the visual and performing arts.

*These courses are available only for students who wish to add gifted education to an existing elementary or secondary teaching license.

660 Organizational Procedures for Special Education. Three hours. A study of the organizational procedures of special education as required by the Mississippi State Department of Education and the legislative and court decisions associated with special education are covered in this course. This class may be online enhanced.

663 Learning Disabilities. Three hours. This course is an overview of the field of learning disabilities including historical development, theoretical research bases, and social, emotional, physical and learning characteristics. Same as PSY 663. This class may be online enhanced.

664 Teaching Individuals with Learning Disabilities. Three hours. This course addresses basic assessment procedures, selection and utilization of instructional methods, materials, and individualized programming for individuals with specific learning disabilities. Prerequisite EDU 663.
Behavior Management. Three hours. This course will examine the laws, history, and prevalence of behavior disorders. Assessment instruments and procedures will be presented along with extensive coverage of intervention plans, curricula, and classroom management strategies. Field experience may be included. Same as PSY 665.

Teaching Individuals with Severe/Profound Intellectual Disabilities. Three hours. This course addresses basic assessment procedures, selection, and utilization of instructional methods, materials, and individualized programming for individuals with severe or profound intellectual disabilities.

Internship in Working with Individuals with Severe/Profound Intellectual Disabilities. Three hours. This course serves as a field experience to apply knowledge and ideas garnered in EDU 666 within a realistic setting. The student will serve a minimum of 80 contact hours with this population, in addition to 10 hours in a seminar discussing such experiences, goals and objectives that have been established for such an experience.

Intellectual Disabilities. Three hours. This course is an overview of intellectual disabilities including etiology and syndromes, theoretical research bases, and social, emotional, physical, and intellectual characteristics. Same as PSY 661. This class may be online enhanced.

Teaching Individuals with Mild Intellectual Disabilities. Three hours. This course addresses basic assessment procedures, selection, and utilization of instructional methods, materials, and individualized programming for individuals with mild intellectual disabilities. Prerequisite EDU 661 or 668.

English (ENG)

The English Department of William Carey University, in keeping with the Goals Statement as put forth by the Master of Education program, seeks to provide students with 1) academic credentials that may allow them to advance in the chosen field of employment; 2) opportunities to specialize in the chosen field of English; 3) opportunities to build upon their undergraduate studies and work experience; and 4) opportunities to become strong professional leaders within the English discipline.

Ordinarily, the M.Ed. candidate who wishes to specialize in English will be an undergraduate English major or minor. In general, the M.Ed./English candidates should have a mastery of rhetoric, composition, literature, and pedagogy. Candidates who do not have an undergraduate major/minor in English will have their undergraduate transcript evaluated so that academic deficiencies in English may be addressed before beginning the graduate program in English. These deficiencies may require the candidate to enroll in additional undergraduate classes; these classes, however, may be taken for pass/fail credit. These requirements also apply to those seeking the add-on endorsement in English.

Each M.Ed./English candidate will be assigned an academic advisor who will both guide the candidate in course selection and track the candidate's academic success.

Graduate English classes are listed under the Master of Arts in English section of this catalog.
History and Social Science (HIS)

The department of history and social science seeks to provide Master of Education students with an opportunity to expand their methodological, interpretative and factual acumen in social studies. Typically, the M.Ed. candidate who wishes to specialize in social studies will be an undergraduate history or social science major or minor. Candidates who do not have an undergraduate major/minor in history or social science will have their undergraduate transcript evaluated so that academic deficiencies in history and social science may be addressed before beginning the graduate program in social studies. These deficiencies may require the candidate to enroll in additional undergraduate classes. Each M.Ed./social studies candidate will be assigned an academic advisor. Requirements for the social studies concentration include 15 hours of courses in graduate history or social science, nine hours of core M.Ed. courses (EDU 620, 630, 640), and six hours of graduate electives. Only six hours of the total program may be taken at the 500-level.

502  **Progressive Era.** Three hours. A study of reformers and reform in the United States during the early twentieth century.

511  **History of Christianity.** Three hours. A study of Christianity's historical foundations, expansion, historical theology, and cultural influences.

513  **Renaissance and Reformation.** Three hours. A study of the Renaissance and the Protestant Reformation with primary attention given to the interrelationship of these movements.

521  **Historiography.** Three hours. The theory and practice of historical writing from Herodotus to the antiquarian empiricists.

532  **History of Russia.** Three hours. A survey of Russian history from Slavic origins to the present day.

558  **The Contemporary World.** Three hours. A regional study of the world since 1945.

570  **The Roman Republic.** Three hours. A study of the origins, growth, and demise of the Roman Republic in the ancient Mediterranean world, 509 B.C. to 31 B.C.

571  **The Roman Empire.** Three hours. A study of the transition from Roman Republic to Roman Empire, 31 B.C. to 312 A.D

572  **The Byzantine Empire.** Three hours. A study of the survival of the Roman Empire in the East down to the fall of Constantinople in 1453.

620  **The British Empire.** Three hours. A study of the political, social, economic and religious institutions of the British Empire from 1600 through 1947.

621  **Britain, 1485-1714.** Three hours. A study of the government and culture of Britain and Ireland during the reigns of the Tudors and the Stuarts.

622  **Britain, 1714-1850.** Three hours. The study of the emergence of Britain as the pre-eminent world power.

623  **Reformation Historiography.** Three hours. A study of the historia-graphical trends that have governed recent understandings of the European Reformation.

624  **French Revolution.** Three hours. A study of the collapse of the Bourbon monarchy and its replacement by a revolutionary regime.
Mississippi History. Three hours. A study of the history of Mississippi from pre-history to the present.

The Later Roman Empire: Three hours. A study of the decline of the Roman world and its transformation into Medieval Europe.

Historiography of Medieval Europe. Three hours. An historiographic study of major works of scholarship on the history of medieval Europe, 300-1500.

The Crusades. Three hours. A study of the development and history of the crusading movement in western history through the use of both primary and secondary sources.

The Early Church. Three hours. A study of the rise of the early church as well as the various internal and external challenges faced by the earliest Christians.

The Italian City-State. Three hours. A study of the unique culture of the Italian city-republics during the late medieval and Renaissance periods.

European Historiography, 1815 to the Present. Three hours. An historiographical study of periods and topics from the age of Metternich to the present.

Historiography of Nineteenth Century America. Three hours. An historiographical study of topics and periods in nineteenth century America.

Historiography of Modern America. Three hours. An historiographical study of topics and periods in modern America since 1950.

Historiography of Asia and Africa. Three hours. An historiographical study of Asian and African topics.

Mathematics (MAT)

The mathematics department of William Carey University, in keeping with the goals statement of the Master of Education program, offers a graduate mathematics curriculum designed to provide students with 1) academic credentials that may allow them to advance in the chosen field of employment; 2) opportunities to specialize in the chosen field of the teaching of mathematics; 3) opportunities to build upon their undergraduate studies and work experience; and 4) opportunities to become strong professional leaders within the mathematics discipline.

Ordinarily, the M.Ed. candidate who wishes to specialize in mathematics will be an undergraduate mathematics major (or strong minor). Candidates who do not have this background in mathematics will have their undergraduate transcript evaluated so that academic deficiencies may be addressed. These deficiencies may require the candidate to enroll in additional undergraduate classes; these classes, however, may be taken for pass/fail credit.

Each Master of Education in mathematics candidate will be assigned an academic advisor who will guide the candidate in course selection.

Graduate mathematics classes are offered on a rotation schedule, with the majority of the classes offered in the summer term.
536 **Geometry.** Three hours. Euclidean and non-Euclidean geometries with emphasis given to their logical development from basic assumptions are studied.

541 **Abstract Algebra.** Three hours. The algebraic structure of the rational, real, and complex numbers is studied.

551 **Advanced Calculus.** Three hours. An intensive and detailed study of continuous and differential functions.

553 **Differential Equations.** Three hours. A basic course in differential equations including differential equations of the first order, applications, linear differential equations, and series methods.

603 **Algebra with Technology.** Three hours. A comprehensive study of the functions and capabilities of graphing calculators (hand-held computers) and their dual use in mathematical computation and as a tool for understanding algebra topics and the graphs and properties of relations and functions. A variety of mathematical explorations (keyed to both the Mississippi Mathematics Framework and CUPM recommendations for the training of teachers of mathematics) are used to attain skill in the use of each calculator feature.

613 **Higher Math with Technology.** Three hours. A comprehensive study of the functions and capabilities of graphing calculators (hand-held computers) and their dual use in computation in analysis, probability, statistics, and trigonometry and as a tool for understanding these topics. A follow-up to MAT 603, which is a useful previous course, but not a required prerequisite.

623 **Mathematics with Technology.** Three hours. A companion course to MAT 603 and MAT 613, this course emphasizes the use of computer algebra systems (CAS) on calculators and computers to develop an understanding of mathematics and to use these features in problem-solving and computation.

635 **Foundations of Higher Math.** Three hours. Logic, sets, relations, functions, denumerable sets, cardinal numbers, and ordered sets, with emphasis throughout on the nature and techniques of mathematical proof.

641 **Seminar in Algebra.** Three hours. An intensive study of algebra with emphasis on the relationship of algebra to other areas of mathematics.

643 **Seminar in Linear Algebra.** Three hours. An in-depth study of linear algebra topics and applications with emphasis on vector spaces, inner product spaces, linear transformations, eigenvectors, eigenvalues, and an introduction to numerical methods. Prerequisite: MAT 341.

651 **Seminar in Analysis.** Three hours. An intensive study of analysis which emphasizes applications to real life problems.

661 **Seminar in Geometry.** Three hours. An intensive study of selected topics in geometry.

671 **History of Mathematics.** Three hours. A study of the origin and development of mathematical concepts in which an effort is made to discover the role of mathematics in the cultural development of mankind.
672  **Seminar in Mathematics Education.** Three hours. Current trends and issues in the teaching of mathematics in secondary schools are studied. Special emphasis will be given to problems in curriculum and methods of instruction.

680  **Seminar in Problem Solving.** Three hours. An exploration of various mathematical topics and contexts to learn mathematics, to pose problems and make conjectures, to solve problems, to develop a variety of problem solving strategies, and to communicate mathematical demonstrations and proofs.