



# Programs of Study 2021-2022

## ARCHITECTURE AND ENGINEERING DESIGN

The Architectural & Engineering Design program of study prepares students for a variety of engineering and design professions including architectural, civil, or mechanical design. Students will develop problem-solving and critical-thinking skills by identifying the relationship between available resources and requirements of a project/problem to accomplish realistic planning. As they progress through the program of study, students create design solutions for increasingly sophisticated problem sets, presenting information through various modes of visual communication such as drawing, rendering, and modeling in combination with verbal and written communication.

Year 1: Architectural & Engineering Design I – Recommended for 9th & 10th grade

Year 2: Architectural & Engineering Design II – Recommended for 10th & 11th grade

Year 3: Architectural & Engineering Design III \* – Recommended for 11th & 12th grade

Year 4: Architectural & Engineering Design III \* – Recommended for 11th & 12th grade

\* Architectural & Engineering Design III is offered for two credits over two years.

\* One credit Architecture concentration and one credit Engineering concentration.

For more information contact instructor Shane McNeill at [shane.mcneill@wcs.edu](mailto:shane.mcneill@wcs.edu)

## AUTOMOTIVE COLLISION REPAIR

The Automotive Collision Repair program of study prepares students for entry into careers as professional service technicians. Content emphasizes customer service skills, proper use of tools and equipment, safety, shop operations, engine fundamentals, damage analysis, cost estimation, painting and refinishing, and structural and non-structural repair in a hands-on environment.

Year 1: Intro to Collision Repair – Recommended for recommended for 9th & 10th grade

Year 2: Collision Repair: Non-Structural\* – Recommended for 10th & 11th grade

Year 3: Collision Repair: Painting & Refinishing\*\* – Recommended for 11th & 12th grade

Year 4: Collision Repair: Damage Analysis, Estimating, & Customer Service – Recommended for 12th grade

Classes are limited to 12 - 15 students

\* Student certification in I-CAR Non-Structural Technician ProLevel 1.

\*\* Student certification in I-CAR Refinish Technician ProLevel 1.

For more information contact instructor Stanley Russell at [stanley.russell@wcs.edu](mailto:stanley.russell@wcs.edu)

## BIOMEDICAL SCIENCES

By immersing students in activities like practicing suturing and constructing body structures from clay, Biomedical Science empowers students to build knowledge and skills in biomedical science, as well as in-demand, transportable skills like problem solving, critical and creative thinking, communication, and collaboration that they need to thrive in life and career. Students explore the vast range of careers in biomedical sciences. As students advance through the program of study, they examine the interactions of human body systems through projects such as determining the identity of a skeleton using both forensic anthropology and DNA analysis. They apply what they know to solve real-world

medical cases. In Medical Interventions students delve into activities like designing a prosthetic arm as they follow the life of a fictitious family and investigate how to prevent, diagnose, and treat disease.

Year 1: Principles of Biomedical Science Honors – Recommended for 10th grade

Year 2: Human Body Systems Honors – Recommended for 11th grade

Year 3: Medical Interventions – Recommended for 12th grade

For more information contact Evelina Galas at [evelina.galas@wcs.edu](mailto:evelina.galas@wcs.edu)

## CULINARY ARTS

Culinary Arts equips students with the skills to pursue careers in the culinary field as a personal chef, caterer, executive chef, and food and beverage manager. Courses cover topics that range from kitchen safety and sanitation, history of the food services industry, careers, nutrition, recipe basics, proper kitchen tools and equipment, and kitchen staples to food presentation, advanced cooking principles, bakeshop preparation skills, professionalism, and business opportunities. Students may gain job experience while still in high school through local and Career and Technical Student Organizations (CTSO) competitions and work-based learning.

Year 1: Culinary Arts I – Recommended for 9th & 10th grade

Year 2: Culinary Arts II \* – Recommended for 10th & 11th grade

Year 3: Culinary Arts III – Recommended for 11th & 12th grade

\* Culinary Arts II is two credits / two class periods.

For more information contact instructor Charles Gillespie at [charlesg@wcs.edu](mailto:charlesg@wcs.edu)

## DIGITAL ARTS & DESIGN

Students in the Digital Arts & Design program of study will develop skills and knowledge in graphic design, computer art and illustration, photography, digital imaging, interactive design, animation and motion graphics, 3-D character design, and multimedia. Using a state of the art iMac lab with Adobe Creative Cloud software students will create real world projects and develop their professional portfolio. After the first year course where students are introduced to many fields of Digital Arts & Design, students may begin to concentrate in one area they are most interested in including design, illustration, photography, animation or choose a more broad combination of these areas of study.

Year 1: Digital Arts & Design I \* – Recommended for 9th & 10th grade

Year 2: Digital Arts & Design II – Recommended for 10th & 11th grade

Year 3: DAD III Portfolio and/or DAD III Animation & Motion \*\* and/or Applied Arts Practicum – 11th & 12th grade

Year 4: DAD III Portfolio or DAD III Animation & Motion \*\* or Applied Arts Practicum – 12th grade

Digital Arts & Design III is offered for two credits over two years. Students may choose DAD III Portfolio or DAD III Animation/Motion Graphics depending on their chosen concentration.

\* Students may earn Fine Arts credit for DAD I upon completion of three courses in Digital Arts & Design.

\*\* Students may earn college credit if they submit their final DAD III Art & Design 2-D portfolio to AP.

\*\* DAD III/Animation & Motion Graphics may be taken with no prerequisites by upperclassmen – 11th & 12th grades.

\*\* Dual credit may be earned through Columbia State Community College or Nossi College of Art. Students earning dual credit will receive 4 extra points to the first semester and 4 points to the second semester if they sit for the exam/portfolio review. Students earning dual credit through CSCC will also have .75 points added to their GPA.

\*\* Adobe certification may be earned by taking the appropriate exam. Students earning certification will receive 4 extra points to the first semester and 4 points to the second semester if they sit for the exam.

For more information contact instructor Melissa Estes at [melissae@wcs.edu](mailto:melissae@wcs.edu)

## EARLY CHILDHOOD EDUCATION & TRAINING CAREERS

Early Childhood Education and Training is designed to prepare students for the field of teacher education. Students will gain knowledge about basic child development from infancy thru the teen years. Student will learn to apply this knowledge to all areas of education from elementary through secondary. Course content covers the components of curriculum planning, student learning, screening and assessing, and many other skills related to teaching. Upon completion of this program of study, students will have had the opportunity to work alongside educators in an internship experience, compile artifacts for a professional portfolio, and graduate prepared for further training at the postsecondary level. Students may gain job experience while still in high school through local and Career and Technical Student Organizations (CTSO) competitions and work-based learning.

Year 1: Early Childhood Education Careers I – Recommended for 9th & 10th grade

Year 2: Early Childhood Education Careers II \* – Recommended for 10th & 11th grade

Year 3: Early Childhood Education Careers III – Recommended for 11th & 12th grade

Year 4: Education and Training: Early Childhood Education Careers/Teaching As A Profession \*\* – 11th & 12th grade

\* Early Childhood Education Careers II is two credits / two class periods.

\*\* Teaching as a Profession can be taken without prerequisites as an elective.

ECE III Industry Certification aligned course. Participating students will receive 4 extra points to the first semester and 4 points to the second semester if they sit for exam. .50 quality points are added to the students GPA.

For more information contact instructor Angie Cathey at [angelac1@wcs.edu](mailto:angelac1@wcs.edu)

## INFORMATION TECHNOLOGY

In the Information Technology program of study, students will develop programming and coding skills as they work on projects of increasing complexity. Emphasis will be on actual programming projects, both individual and group. The major theme of the AP Computer Science A course is problem solving and is comparable to introductory courses in many colleges and universities. Concepts and applications of autonomous vehicle programming are also taught in this program of study. Students will actually assemble and program an autonomous vehicle. Cybersecurity Concepts are covered in depth.

Year 1: Coding I \* – Recommended for 9th & 10th grade

Year 2: Cybersecurity I Honors (Autonomous Vehicles I included) – Recommended for 10th & 11th grade

Year 3: Cybersecurity II Honors (Autonomous Vehicles II included) – Recommended for 11th & 12th grade

Year 4: Cybersecurity Practicum Honors or AP Computer Science A – Recommended for 11th & 12th grade

\* Dual credit may be earned through Columbia State Community College. Students earning dual credit will receive 4 extra points to the first semester and 4 points to the second semester if they sit for the challenge exam.

Students earning dual credit will also have .75 points added to their GPA.

For more information contact instructor Brent Greene at [richard.greene@wcs.edu](mailto:richard.greene@wcs.edu)

## LEGAL CAREERS – PRE-LAW AND CRIMINAL JUSTICE

The Pre-Law and Criminal Justice program of study prepares students for a range of careers in law enforcement, crime scene analysis, forensic science, public safety, criminal justice, and is designed for students interested in legal services careers. In this program of study, course content covers a wide range of knowledge and skills related to the American legal system, including basic principles common to business, personal, criminal and civil law. Other topics include legal careers, the justice system, juvenile justice, immigration law, ethics, and professionalism.

Year 1: Pre-Law I – Recommended for 10th grade

Year 2: Criminal Justice II – Recommended for 11th grade

Year 3: Criminal Justice III – Recommended 12th grade

For more information contact instructor Shauna Dixon at [shaunad@wcs.edu](mailto:shaunad@wcs.edu)

## MARKETING AND MANAGEMENT

The Marketing program of study is designed to prepare students for employment in a career where learned techniques and strategies are used to convey ideas and information through marketing communications. This program of study will also prepare students who want to start, own, and operate their own business. Subject matter is arranged around sequenced, progressive courses that provide students with the opportunity to develop an understanding of marketing systems and how they are utilized in sales, advertising, public relations, and other marketing services. Course content centers on concepts in business, finance, and marketing; social responsibility and ethics; the marketing mix; economics; market research; product development; and the role of marketing in business.

Year 1: Marketing & Management I: Principles \* – Recommended for 9th & 10th grade

Year 2: Marketing & Management II: Advanced Strategies \* – Recommended for 10th & 11th grade

Year 3: Event Planning & Management – Recommended for 11th grade & 12th grade

Year 4: Entrepreneurship \* or Work Based Learning – Recommended for 12th grade

\* Dual credit may be earned through Columbia State Community College. Students earning dual credit will receive 4 extra points to the first semester and 4 points to the second semester if they sit for the challenge exam. Students earning dual credit through CSCC will also have .75 points added to their GPA.

For more information contact instructors Anita Roenbeck at [anita.roenbeck@wcs.edu](mailto:anita.roenbeck@wcs.edu)

## TV & FILM PRODUCTION

The TV & Film Production program of study is designed for students interested in a range of entertainment and news media fields. Course content centers on production of various television, cinema, radio, and other audio and video products, including commercials, music, news, interactive programming, and film. Students complete all phases of the production process including planning, coordinating, capturing, editing, and distributing productions. Topics include but are not limited to concept creation, scripting, interviewing, budgeting, scheduling, set design, engineering, field and studio production, and editing, and, as well operating production equipment such as cameras, lights, and audio equipment. Upon completion of this program of study, students will be prepared to seek employment or advanced training as an audio and video equipment technician, camera operator, film and video editor, multimedia artist and animator, broadcast technician, and many other careers in entertainment and media.

Year 1: TV and Film Production I – Recommended for 9th & 10th grade

Year 2: TV and Film Production II – Recommended for 10th & 11th grade

Year 3: TV and Film Production III \* – Recommended for 11th & 12th grade

Year 4: TV and Film Production III \* – Recommended for 12th grade

\* TV and Film Production III is offered for two credits over two years.

\* Dual enrollment from MTSU and dual credit from Columbia State Community College is offered for post-secondary credit for TV/Film III. Students earning dual credit will receive 4 extra points to the first semester and 4 points to the second semester if they sit for exam/portfolio review. Students earning dual credit through CSCC will also have .75 points added to their GPA.

For more information contact instructor Keri Thompson at [keri.thompson@wcs.edu](mailto:keri.thompson@wcs.edu)