

Cosumnes Oaks High School

Telephone Number: (916) 689-8600

<http://cohs.egusd.net>

Architectural Design and Engineering Academy (ADE)

The Architectural Design and Engineering (ADE) Academy is designed to provide students who have a strong desire and motivation in the areas of architecture, engineering, and construction management with a concentrated and integrated approach to the “Design and Build” philosophy which is used in the building industry. The academy also aspires to expose students to the broader themes of sustainability and green technologies as evidenced by the projects the students are designing and building. This academy is home to the nationally recognized *R-house* “House of the Future” which is a 1400 square foot home built on campus that serves as a model for students throughout the school district and state to demonstrate how “Going Green” can be incorporated into our everyday lives at home. Through this program students can earn college credit via a working articulation agreement with Cosumnes River College (CRC) which also allows student to matriculate into CRC’s program before enrolling in a four-year university. There are two courses within the academy that are “a-g” college approved electives: *Engineering Design A* and *Principles of Engineering A*. Academy students meet the UC/CSU college entrance requirements. The academy encourages students to participate in community service and requires a minimum of 50 hours of service. Cosumnes Oaks High School’s counseling department works closely with the academy to ensure students have the necessary support to be competitive candidates at the university level.

Students enrolled in this academy must complete a sequence of Career Technical Education courses noted below as well as their core academic courses (e.g., English, mathematics, science, social science, etc.) as one cohort.

Architectural Design and Engineering Academy Programs of Study

Industry Sector: Engineering and Architecture

Pathway: Architectural Design

Grade	Academic 1	Academic 2	Academic 3	CTE	Advocacy
9	English 9	Math I	Geography	Exploring Technology 9	Yes
10	English 10	Math II	World History	Building Trades 1	Yes
11	English 11	Pre-Calculus	US History	Principles of Engineering A	Yes
12	English 12	Calculus A and B	Government Economics	Design and Implementation	Yes

COSUMNES OAKS HIGH SCHOOL
Architectural Design and Engineering Academy (ADE)

The CTE courses required for this academy are described below.

Course	Class Restrictions	Credits	Description
ADE Exploring Technology <p style="text-align: right;">Course #12350</p>	Freshman	5	<p>This course explores Computer Aided Drawing/Computer Aided Machining/Computer Aided Control milling and lathe machinery, aerodynamics, digital TV/Video production, small engine assembly, transportation, plastics, pneumatics, electronics, biotechnology, research and design, robotics, along with general hand tool usage and more. This MPTA course along with the action based project presentation (PowerPoint) will provide students an opportunity to examine many different modern technologies as well as careers associated with them. Students that receive a pass on the district's speech requirement scoring rubric will fulfill the district's speech requirement. Students must be concurrently enrolled in a MPTA math course, MPTA English 9, MPTA General Science, MPTA Drafting 1A and MPTA support 9 mini course.</p> <p><i>Prerequisite(s): Students must pass safety test within first 5 days of class. Students cannot enroll after 5th day of instruction. Students that do not pass safety test will be removed from course and MPTA program.</i></p> <p>Adopted curricular materials: <i>Technology Today & Tomorrow, Glencoe</i></p>
ADE Building Trades I Beginning Woodworking <p style="text-align: right;">Course #12311</p>	Sophomore	10	<p>This course is designed to give students a basic understanding of woodworking and the many skilled trades which residential and commercial construction utilize. An emphasis is placed on working safely with hand tools, light power tools and larger woodworking equipment. Students will design and fabricate four practical projects to gain knowledge in working with wood. Units to be covered include units of measure, shop safety, properties and selection of woods, design and construction techniques, paint/finish processes, choosing fasteners, tool maintenance, and materials purchasing.</p> <p>Adopted curricular materials: No textbook assigned.</p>
ADE Principles of Engineering A <p>“a-g”/“g” approved</p> <p style="text-align: right;">Course #12344</p>	Junior	10	<p>This course is designed for students to engage in various hands-on activities to explore the nature of assorted engineering fields. During this exploration, students will gain insight into the educational requirements of the engineering profession, required skills for most engineers, and the roles and functions of engineers. Problem-solving projects will focus on mechanical engineering, electronic engineering, structural engineering, and electrical engineering. While utilizing the engineering design process, students will design, develop, model, and test an engineering solution based on given criteria. Students will create an engineer's portfolio documenting their skills and knowledge gained throughout the year, and they will catalog all the stages of the design process of their student projects.</p> <p><i>Prerequisite(s): Mathematics I (or Algebra I).</i></p> <p>Adopted curricular materials: No textbook assigned.</p>

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Architectural Design and Engineering Academy (ADE)
(continued)

Course	Class Restrictions	Credits	Description
ADE Design and Implementation “a-g”/“f” approved Course #12320	Senior	10	This course emphasizes aesthetics and creativity, design, drafting, and project implementation. Project experiences in wood, metal, and sculpture will be included. Assigned and individualized projects along with course work on history of design and construction are also included. Tests will be given regularly and students will be expected to participate in projects and other assignments. Aesthetic judgment will be a part of the course. Credits may be used toward the Visual and Performing Arts graduation requirement. This course meets UC and CSU elective requirement and CSU and UC fine arts requirement. Adopted curricular materials: No textbook assigned.

Related electives that a student in the Architectural Design and Engineering Academy might take include:

- Engineering Design A
- Digital Art and Graphic Design
- Physics
- Beginning 2-D Art

***For a description of academic courses and the electives identified above, see Section 1.
Please contact the school should you need further information.***

COSUMNES OAKS HIGH SCHOOL
Culinary Arts Academy (CAA)

In August of 2010, the Elk Grove Unified School District completed construction of the Culinary Arts Institute on the Cosumnes Oaks High School campus. EGUSD received funding from the state to build an 8200 square foot state-of-the-art facility. The facility houses an instructional kitchen with eight teaching stations, computer lab, and café, as well as a commercial kitchen that gives our students the opportunity to work and learn in a professional setting. The Culinary Arts program uses the “ProStart” industry certified culinary curriculum that allows our junior and senior students the opportunity to work at restaurants prior to graduation. Students are given the opportunity to become ServSafe certified while in the Academy, allowing them to work in the food service industry while still enrolled at Cosumnes Oaks. Students within the Culinary Arts Academy are able to access courses outside the program to ensure that they meet all the UC/CSU college entrance requirements. Students have access to college and career guidance and support in their regular classes.

Students enrolled in this academy must complete a sequence of Career Technical Education courses noted below as well as their core academic courses (e.g., English, mathematics, science, social science, etc.) as one cohort.

Culinary Arts Academy Programs of Study

Industry Sector: Hospitality, Tourism, and Recreation
Pathway: Food Service Hospitality

Grade	Academic 1	Academic 2	Academic 3	CTE	Advocacy
9	English 9	Computer Tech	World Geography	Foods & Nutrition & Introduction to Culinary Arts	Yes
10	English 10	Biology	World History	Baking & Pastry & World Cuisines	Yes
11	English 11	Chemistry	Marketing	Culinary Arts 1	Yes
12	Culinary English 12	Culinary Business Finance	Culinary Government	Culinary Arts 2	Yes

The CTE courses required for this academy are described below.

Course	Class Restrictions	Credits	Description
CAA Foods and Nutrition Course #12423	Freshman	5	This course introduces students to basic food knowledge and preparation skills. Students will gain hands-on experience creating menu items in areas such as: breads, fruits, vegetables, desserts, soups, salads, etc. Assignments will include topics relating to: nutrition, healthy eating, food knowledge, and time management. Students will gain experience using a wide variety of food preparation equipment, and develop skills such as knife techniques, measuring, menu creation, and food presentation. This course can serve as the introductory class for students seeking a culinary career path. <u>Adopted curricular materials:</u> <i>Guide to Good Food, Goodhart/Wilcox</i>

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Culinary Arts Academy (CAA) (continued)

Course	Class Restrictions	Credits	Description
CAA Culinary Arts, Introduction to “a-g”/”g” approved Course #12425	Freshman	5	This course is designed for the student who is interested in gaining new and challenging knowledge and skills for personal use or with a goal to pursue a career in the culinary field. Students will learn basic techniques in food preparation, measurements, and conversions as well as safety and sanitation. Students will gain hands-on experience with stocks, mother sauces, cooking techniques, and advanced knife skills. Special units will include a focus on sustainable agriculture, “green” cooking, specific product identification, menu planning, and plate presentation. Students will explore a wide variety of food products as well as learn fundamental culinary skills. This course can serve as the introductory course for the Culinary Arts Career Pathway. Adopted curricular materials: <i>Culinary Essentials</i> , Glencoe McGraw-Hill
CAA Baking & Patisserie Course #12424	Sophomore	5	This course is designed for students who are interested in expanding upon their basic culinary knowledge and exploring the bakeshop. Students will learn how to work with quick breads, yeast breads, cookies, cakes, and various other confections. Special units will include tiered cakes, plated desserts, as well as chocolate and sugar manipulation. <i>Prerequisite(s): Introduction to Culinary Arts & Foods & Nutrition</i> Adopted curricular materials: No textbook assigned.
CAA World Cuisines Course #12422	Sophomore	5	This course explores the food and customs of various world cultures. Emphasis will be on the planning, buying, and preparation of foreign and native foods. Food preparation will include the study of herbs, spices, ingredients, cooking techniques and equipment of a variety of world cuisine. Special units include the world food crisis and awareness of cultural traditions. This course can serve as the intermediate class towards a food and nutrition career path. <i>Prerequisite(s): Introduction to Culinary Arts & Foods & Nutrition</i> Adopted curricular materials: <i>Guide to Good Food</i> , Goodhart/Wilcox
CAA Culinary Arts I, Advanced Course #12420	Junior	10	This course is designed for the student who is interested in gaining new and challenging knowledge and skills in the culinary field for personal use or with a goal to pursue a career in the culinary field. Students will learn advanced techniques in the areas of baking yeast and quick breads along with sweet and savory pastries, plated desserts, food presentation, working with chocolate, and cake fabrication and decorating. Students will explore a wide variety of specialty foods and the latest food trends. Students will also gain experience in recipe development, planning special events and entertaining with food. Careers relating to the culinary arts will be examined with guest speakers and/or field trips. <i>Prerequisite(s): Successful completion of all of the following with C or better: Foods & Nutrition, Introduction to Culinary Arts 1, Baking & Patisseries, World Cuisines.</i> Adopted curricular materials: <i>Culinary Essentials</i> , Glencoe/McGraw-Hill

COSUMNES OAKS HIGH SCHOOL
Culinary Arts Academy (CAA) (continued)

Course	Class Restrictions	Credits	Description
CAA Culinary Arts II, Advanced Course #12421	Senior	10	This course is designed for the student who is interested in gaining new and challenging knowledge and skills for personal use or with a goal to pursue a career in the culinary field. Students will learn advanced techniques in the areas of use of herbs and spices, sauce-making, cooking methods (grilling, sautéing, braising, etc.), working with a variety of culinary equipment, and food/plate presentation. Students will explore a wide variety of specialty foods and the latest food trends. Students will also gain experience in planning special events and entertaining with food. Careers relating to the culinary arts will be examined with guest speakers and/or field trips. <i>Prerequisite(s): Successful completion of Culinary Arts 1 with a C or better.</i> <u>Adopted curricular materials:</u> <i>Culinary Essentials</i> , Glencoe/McGraw-Hill

***For a description of academic courses, see Section 1.
 Please contact the school should you need further information.***

Broadcast Journalism Pathway

The Broadcast Journalism Pathway is designed to provide students with the opportunity to develop the technical, communication, and writing skills necessary to produce high quality video productions and live broadcasts. Students enter the program by first taking *Video Production I/II* and are required to ultimately demonstrate their skills and competencies in a final project submitted to the Sacramento Educational Video Awards (SEVA) organization for review and critique. Having completed these two courses, students then move forward to the capstone course, *Broadcast Journalism*, which is housed in the school's HD television studio. Students in this course produce the Cosumnes Oaks High School daily news show entitled "Wolfpack TV" and are responsible for the school announcements and internal communication on campus. A new course within the pathway, *Ethics in the Media*, is being developed and will become a pathway requirement of all students.

Visual and Performing Arts Pathway

The Visual and Performing Arts Pathway is designed to provide students who have a strong desire and motivation in the arts with concentrated and focused study in a variety of Arts disciplines. The Visual and Performing Arts (VAPA) Pathway provides an atmosphere that fosters interdisciplinary connections found among all areas of artistic expression. VAPA Pathway students share experiences that recognize and value cultural diversity of artistic expression and that nurture community within the arts. VAPA Pathway students also complete coursework outside their major area of interest, engage in community service that supports the Arts, and maintain high academic standards. Students in the VAPA Pathway have access to career and college guidance and support in their regular academic classes.