Classes Offered at El Capitan FFA

- **California Agriculture 1 & 2:** A two semester course that is offered to 9th and 10th graders who have expressed interest in the field of agriculture. Areas that will be covered in this course include FFA, animal science, vegetable and field crops, ornamental horticulture, natural resources, Ag mechanics, and career opportunities in all areas in Ag.

- **Leadership:** This course is designed for students who have demonstrated outstanding potential for leadership. During the course students will examine and analyze the leadership styles of well-known leaders and will focus on leadership principles, as well as the characteristics of successful leaders. Students must meet the requirements set forth by their school before enrollment in the course. During this course, students will design and complete projects that will serve to achieve their individual academic and/or career goals and help develop their leadership skills.

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- **Biology and Sustainable Agriculture (Formerly Agriculture Biology 1,2)** Biology and Sustainable Agriculture is a laboratory science course designed for the college-bound student. The course emphasizes detailed knowledge of the biological principles of the following areas: molecular and cellular aspects of living things, structure and function of agricultural plants and animals, genetics, physiology, plant and animal diversity and principles of classification, ecological relationships, and animal behavior. This course meets the University of California "d" science requirement.

- **Chemistry and agriscience 1c & 2c;** This course explores the physical and chemical nature of soil as well as the relationship between soil, plants, animals, and agricultural practices. Students will examine properties of soil and land and their connections to plant and animal production. Using knowledge of scientific protocols as well as course content, students will develop a scientific research program to be conducted throughout the first semester of the course. To complete the whole project each student will investigate and test an agriscience research question.

- **Advanced Interdisciplinary science for sustainable Agriculture 1H/2H:** This integrated class combines an interdisciplinary approach to laboratory science and research with AG management principles. Using skills and principles learned in this course, students design systems and experiments to solve Agricultural management issues currently facing the industry.

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- **Agricultural American Government 1C:** Students in grade twelve pursue a deeper understanding of the institutions of American government. They compare systems of government in the world today and analyze the history and changing interpretations of the Constitution, the Bill of Rights, and the current state of the legislative, executive, and judiciary branches of government. An emphasis is placed on analyzing the relationship among federal, state, and local governments, with particular attention paid to important historical documents such as the Federalist Papers. These standards represent the culmination of civic literacy as students prepare to vote, participate in community activities, and assume the responsibilities of citizenship. Students will also participate in coursework focusing on Agriculture and its effects on our government system and the world government outlook. This course will be part of a pathway of agriculture coursework designed to further a student's interest in their chosen field of agricultural study. This course meets the California UC "a" requirement.

- **Agricultural Economics:** In addition to studying Economics in grade twelve, students will also master fundamental economic concepts, applying the tools (graphs, statistics, equations) from other subject areas to the understanding of operations and institutions of economic systems. Studied in a historic context are the basic economic principles of micro and macroeconomics,international economics, comparative economic systems, measurement, and methods. This course is designed for advanced study of agriculture business opportunities and economics for the college bound student interested in agriculture. Through the course, the student will understand and apply basic economic principles as they relate to individual consumers, production agriculture, and agri-business management. The students will develop an Agricultural project and keep accurate Agriculture records of expenses, receipts, and profit/losses. This course meets the California UC "g" requirement.

- **Introduction to Agriculture Mechanics:** This course provides a background in metal fabrication and its relation to the agriculture field. It is designed to instruct the student in oxyacetylene, shielded metal arc, MIG welding processes, layout and joining techniques for hot and cold metals, forge and making machine tools, sheet metal, properties of metals, and use of metal working equipment that would be used in an agriculture metal shop. The course will also utilize FFA and supervised occupational experience to develop leadership, record keeping, and gain practical experience. Prerequisite: Completed California Agriculture (A070-A071) with C or better on Instructor's permission

- **Construction and repair of farm projects 1 & 2:** Two semester course offered to only 9th and 10th graders to desire to learn the hand skill common to the farm and home. These include woodworking, soldering, welding, and forging.

Farm shop: This two semester course will be offered to students who have completed Construction and Repair of Farm Projects 1-2 as an additional advanced course in the Agricultural Mechanics pathway. Students further advance their skills in welding, fabrication, and the care and operation of power tools and farm machinery.

- **Floral:** This course is designed following the California State Board of Education Visual and Performing Arts Content Standards. In this intermediate level course in the Floral Design pathway, students will gain insights into the principles and elements of design, the history of floral art, botany nomenclature and physiology, vocabulary, and cultural aspects of this art medium. The course provides students with knowledge of plant structure and function, botanical nomenclature and scientific procedures utilized in this field. Students will achieve this through reading, research, written and oral assignments and by designing, creating, and critiquing group projects and their own designs. This course meets the University of California “f” credit for Visual & Performing Arts.

- **Advanced floral:** This course builds on Floral Design 3-4 with the addition of marketing, sales, economics, cash flow, and management of the retail and wholesale floral business. This will include how to prepare a bid for floral products and services for events.