

# Santa Teresa High School

## Education Pathway

**INSTRUCTOR: MARIA GONZALEZ**

**Certifications Available – ParaPro, New Mexico Early Care, Education and Family Support  
45-hour Entry-Level Course: Foundations in the Seven Basic Competencies.**

### CHILD AND HUMAN DEVELOPMENT YOUNG CHILDREN

Learn about the physical, mental, emotional, and social growth and development of children from conception to preschool age. Discover what parental responses the various stages require. In addition, study related topic, such as the prenatal and birth process; responsibilities and difficulties of parenthood; fundamentals of children's emotional and physical development; and appropriate care of infants, toddlers, and young children.

**(Grades 9-10) (05507252)**

**\$10 Lab fee**



### TEACHER ACADEMY 1 (EDUCATIONAL METHODOLOGY)

Teacher Academy 1 (Education Methodology) - This course introduces the principles underlying teaching and learning, the responsibilities and duties of teachers, and the techniques of imparting knowledge and information. Students will focus on the Educators Rising Standards 1-4: 1) Understanding the Profession, 2) Learning about Students, 3) Building Content Knowledge, and 4) Engaging in Responsive Planning. Teacher Academy courses are often accompanied by opportunities to observe and intern in preschool, elementary and middle school classrooms.

*The prerequisite for this course is Child development.*

**(Grades 9-12) (05627352)**

**\$10 Lab fee**



### TEACHER ACADEMY 2 (EDUCATION INTERNSHIP)

This course introduces the principles underlying teaching and learning, focused on Educators Rising Standards 5-7: 5) Implementing Instruction, 6) Using Assessments and Data and 7) Being a Reflective Practitioner. This course typically provides opportunities for students to develop their own teaching objectives, to design and implement lesson plans, and to experience teaching in a controlled environment under the supervision of a cooperating teacher. This class is double blocked and students are required to purchase a Teacher Cadet polo shirt for their internship.

**\*\*When you enroll in the course you will also be enrolled in Executive Internship without Seminar (08530175) to receive credit for school internship**

*The prerequisite for this course is Teacher Academy 1*

**(Grades 9-12) (05637353)**

**\$10 Lab fee**



### TEACHING AND PRACTICUM - OJT

Course, work experience is gained within the public school sector. Although goals may be set cooperatively by the student, teacher, and employer, classroom attendance or experience is not an integral part of the Teaching and Practicum - OJT experience.

**\*\*When you enroll in the course you will also be enrolled in Child Care/Work Experience (05197233) to receive credit for school internship**

*The prerequisite for this course is Teacher Academy 2*

**(Grades 10-12) (05977203)**

**\$10 Lab fee**

# Santa Teresa High School

## Construction Trades Pathway

**INSTRUCTOR: BENJAMIN BAUTISTA**

### Certifications Available – Precision Exams

#### BASIC WOODWORKING –(FORMERLY- WOODWORKING)

Courses introduce students to the various kinds of woods used in industry, and offer experience in using selected woodworking tools. Student's design and construct one or more projects, and may prepare a bill of materials. Correct and safe use of tools and equipment is emphasized. As students advance within Woodworking classes, they focus on learning the nomenclature of power tools, developing skills to safely use these tools in the workshop, and becoming familiar with various kinds of wood finishing materials. Advanced students typically design a project; prepare bills of materials, construct, and finish proposed projects.

(Grades 9-10) (04177761)

\$10 Lab fee

#### ADVANCED WOODWORKING-(FORMERLY-CABINET MAKING)

Courses provide experience in constructing cases, cabinets, counters, and other interior woodwork. Students learn to distinguish between various types of furniture construction and their appropriate applications. Various woodworking machines and power tools for cutting and shaping wood are introduced and used. Cabinetmaking courses cover the different methods of joining pieces of wood, how to use mechanical fasteners, and how to attach hardware; beginning courses may resemble Woodworking courses. Advanced classes teach how to install plastic laminates on surfaces and how to apply spray finishes.

*The prerequisite for this course is Basic Woodworking*

(Grades 9-10) (04187506)

\$10 Lab fee

#### RESIDENTIAL CONSTRUCTION - 2 –(FORMERLY- FRAME CARPENTRY)

Framing Carpentry - Recommended for Students Grades 10 - 12 - Courses provide students with much of the same knowledge as general carpentry courses (knowledge of various types and grades of woods, proper and safe use of hand and power tools, site selection and preparation), but place a special emphasis on construction methods applicable to floor, wall, roof, and/or stair framing. Course content may also include insulation installation and painting.

*The prerequisite for this course is Advanced Woodworking*

(Grades 10-11) (04157257)

\$10 Lab fee

#### BUILDING MAINTENANCE

Courses train students to maintain commercial, industrial, and residential buildings and homes. Instruction is provided in the basic maintenance and repair of air conditioning, heating, plumbing, electrical, and other mechanical systems. Topics covered may include identification and safe use of hand and power tools; installing and repairing floor coverings, walls, and ceilings; installing and repairing doors, windows, screens, and cabinets; applying finishes to prepared surfaces; and repairing roofs, masonry, plumbing, and electrical systems.

*The prerequisite for this course is Residential Construction 2*

(Grades 12) (04737114)

\$10 Lab fee

# Santa Teresa High School

## Engineering Pathway

**INSTRUCTOR: KENNETH BERGTHOLDT**

### **Certifications Available – Precision Exams**

#### **INTRODUCTION TO ENGINEERING (IED)**

The major focus of the course is learning how to take an idea through a design process that will eventually be manufactured or produced. As you learn about various aspects of engineering and engineering design, such as how engineers communicate through drawing, you will apply what you learn through various activities, projects, and problems. For example, after learning about the different techniques engineers use in determining how to design a product, you and your teacher will have the flexibility to explore the design and engineering processes to solve problems that are of interest to you. The course covers the following: The Role of an Engineer, The Design Process, Product Design, Product Analysis and Improvement and Designing as an Engineer.

**(Grades 9-10) (16157357)**

**\$10 Lab fee**



#### **PRINCIPLES OF ENGINEERING (POE)**

Principles Of Engineering (POE) is a high school-level survey course of engineering. The course exposes students to some of the major concepts that they will encounter in a postsecondary engineering course of study. Students have an opportunity to investigate engineering and high tech career POE gives students the opportunity to develop skills and understanding of course concepts through activity-, project-, and problem-based (APPB) learning. Used in combination with a teaming approach, APPB learning challenges students to continually hone their interpersonal skills, creative abilities, and problem solving skills based upon engineering concepts. It also allows students to develop strategies to enable and direct their own learning, which is the ultimate goal of education.

*The prerequisite for this course is IED.*

**(Grades 10-11) (16177357)**

**\$10 Lab fee**



#### **AEROSPACE ENGINEERING (AE)**

Aerospace Engineering (AE) is the study of the engineering discipline which develops new technologies for use in aviation, defense systems, and space exploration. The course explores the evolution of flight, flight fundamentals, navigation and control, aerospace materials, propulsion, space travel, orbital mechanics, ergonomics, remotely operated systems and related careers. In addition the course presents alternative applications for aerospace engineering concepts. Utilizing the activity-project-problem-based (APPB) teaching and learning pedagogy, students will analyze, design, and build aerospace systems. While implementing these designs, students will continually hone their interpersonal skills, creativity, and application of the design process. Students apply knowledge gained throughout the course in a final multi-media project to envision their future professional.

*The prerequisite for this course is POE.*

**(Grades 11-12) (16215357)**

**\$10 Lab fee**



#### **COMPUTER INTERGRATED MANUFACTURING**

Manufactured items are part of everyday life, yet most students have not been introduced to the high-tech, innovative nature of modern manufacturing. This course illuminates the opportunities related to understanding manufacturing. At the same time, it teaches students about manufacturing processes, product design, robotics, and automation. Students can earn a virtual manufacturing badge recognized by the National Manufacturing Badge system. (A “**Project Lead the Way**” course).

*The prerequisite for this course is AE*

**(Grades 11-12) (16187402)**

**\$10 Lab fee**

# Santa Teresa High School

## Biomedical Science Pathway

**INSTRUCTOR: LUIS VILLALOBOS**

**Certifications Available – Precision Exams American Heart Association Basic Life Support (BLS) and Heart saver First Aid (TBD)**

### PHYSIOLOGY OF EXERCISE

Course that provides instruction in the physiology of exercise.

(23514210)

\$10 Lab fee



### PRINCIPLES OF BIOMEDICAL SCIENCE

In the introductory course of the PLTW Biomedical Science program, students explore concepts of biology and medicine to determine factors that led to the death of a fictional person. While investigating the case, students examine autopsy reports, investigate medical history, and explore medical treatments that might have prolonged the person's life. The activities and projects introduce students to human physiology, basic biology, medicine, and research processes while allowing them to design their own experiments to solve problems.

(1660776)

\$10 Lab fee



### HUMAN BODY SYSTEMS

Students examine the interactions of human body systems as they explore identity, power, movement, protection, and homeostasis. Exploring science in action, students build organs and tissues on a skeletal Maniken®; use data acquisition software to monitor body functions such as muscle movement, reflex and voluntary action, and respiration; and take on the roles of biomedical professionals to solve real-world medical cases.

*The prerequisite for this course is Principles of Biomedical Science.*

(16617222)

\$10 Lab fee



### MEDICAL INTERVENTIONS

Students follow the life of a fictitious family as they investigate how to prevent, diagnose, and treat disease. Students explore how to detect and fight infection; screen and evaluate the code in human DNA; evaluate cancer treatment options; and prevail when the organs of the body begin to fail. Through real-world cases, students are exposed to a range of interventions related to immunology, surgery, genetics, pharmacology, medical devices, and diagnostics.

*The prerequisite for this course Human Body Systems.*

(16627211)

\$10 Lab fee

# Santa Teresa High School

## Welding Pathway

**INSTRUCTOR: CHRIS CHAMPAGNE**

### **Certifications Available – American Welding Society**

#### WELDING - 1

Course introduces students to the properties, uses, and applications of various metals. Welding courses provide experience in various processes used to join and cut metals (such as oxyacetylene, shielded metal arc, metal inert gas and tungsten arc processes) and the proper use of each technique. Courses often include instruction interpreting blueprints or other types of specifications.

**Grades (10-12) (24147252)**

**\$10 Lab fee**



#### WELDING - 2

This is a second sequential course in a welding program of study meant to take a student into higher level knowledge and skill development.

*The prerequisite for this course is Welding 1.*

**Grades (10-12) (24167252)**

**\$10 Lab fee**



#### WELDING - 3

This is a third sequential course in a welding program of study meant to take a student into higher level knowledge and skill development.

*The prerequisite for this course is Welding 2.*

**(Grades 11-12) (24177252)**

**\$10 Lab fee**

#### PRECISION METALWORK – INDEPENDENT STUDY

Course, often conducted with instructors as mentors, enables students to explore metal related topics of interest in greater depth and detail. Independent Study courses may serve as an opportunity to expand expertise in a particular industry application, to explore a topic of special interest within a related industry, or to develop greater machining skills.

*The prerequisite for this course is Welding 3.*

**(Grades 12) (24967252)**

**\$10 Lab fee**

# Santa Teresa High School

## Architectural Drafting Pathway

**INSTRUCTOR: JAVIER RINCON**

### Certifications Available – AutoDesk

#### DRAFTING – ARCHITECTURAL

Courses introduce and refine the technical craft of drawing illustrations to represent and/or analyze design specifications, using examples drawn from architectural applications. General drafting skills are developed, but a particular emphasis is placed on interior and exterior residential (and light commercial) design, site orientation, floor plans, electrical plans, design sketches, and presentation drawings. Students may prepare scale models.

**(Grades 9-10) (07037251)**

**\$10 Lab fee**



#### CAD ARCHITECTURAL -2

In CAD Architecture II, the student develops a set of house plans using computers in drawing and problem-solving activities. The student incorporates advanced commands into projects and integrates general employability skills with architectural coursework.

*The prerequisite for this course is Drafting-Architectural.*

**(Grades 10-12) (07159231)**

**\$10 Lab fee**



#### CAD DESIGN AND SOFTWARE

Frequently offered as an intermediary step to more advanced drafting courses (or as a concurrent course); CAD Design and Software courses introduce students to the computer aided drafting systems available in the industry.

*The prerequisite for this course is CAD Architecture II*

**(Grades 10-12) (07077231)**

**\$10 Lab fee**



#### CAD ARCHITECTURE 3 DIRECT STUDY

In CAD Architecture III – Directed Studies, the student pursues advanced directed study in an area of Architectural graphics, building on the skills developed in CAD Architecture I and II. The Student produces a project(s) that demonstrates knowledge of Architecture content guided by the instructor. He/She has the ability to work independently, to form goals, become familiar with careers and develop work habits of professionals. Literacy is integrated throughout the course.

*The prerequisite for this course is CAD Design and Software*

**(Grades 10-12) (07167251)**

**\$10 Lab fee**

# Santa Teresa High School

## Marketing and Communications Pathway

**INSTRUCTORS: ARMIDA VASQUEZ**

**Certifications Available – Precision Exams, National Retail Federation - Advanced Customer Service and Sales Certification (TBD)**

### GENERAL BUSINESS

This business and marketing course explores the world of business and marketing. Curriculum will focus on the skills, knowledge, and attitudes demanded by employers in the workplace. Students will study economics, marketing and basic accounting concepts. Emphasis will be placed on business computer applications including word processing, spreadsheets, and databases. Students will have the opportunity to demonstrate knowledge of retail merchandising, customer service, and working with a team by participating in the operation of a school-owned student operated snack bar and classroom projects. Student participation in related co-curricular vocational student organizations, DECA and BPA, is strongly encouraged.

**(Grades 9 – 10) (02267001)**

**\$10 Lab Fee**



### PRINCIPLES OF SELLING

Course provides students with the knowledge and opportunity to develop in depth sales competencies. Types of selling, steps in a sale, sales strategies, and skills and techniques in the area of sales may all be topics of these courses.

*The prerequisite for this course is General Business*

**(Grades 10 – 12) (18257002)**

**\$10 Lab Fee**



### MARKETING MANAGEMENT

Course covers the same scope of topics as Principles of Marketing courses (purchasing and distribution systems; advertising and sales; and so on) but place a particular emphasis on business management and entrepreneurship, providing exposure to common techniques and problems of management.

*The prerequisite for this course is Principles of Selling*

**(Grades 11 – 12) (18267003)**

**\$10 Lab Fee**



### MARKETING RESEARCH

A business and marketing research class which engages students in research techniques and application to business problems. Students will be expected to identify a problem, research it, compile information and results, analyze the information, synthesize a solution from the information, present the findings and suggestions to an appropriate audience, and evaluate their process. As student presentation of the project in both a written product and a classroom and/or competitive presentation are integral to the course.

*The prerequisite for this course is Marketing Management.*

**(Grades 11 – 12) (18347004)**

**\$10 Lab Fee**

# Santa Teresa High School

## Hospitality Pathway

**INSTRUCTORS: OLGA PEREZ/REBECCA LUSK**

**Certifications Available – Food Handlers Card (ANSI Recognized), ServSafe® Food Protection Managers Certification (TBD)**

### NUTRITION

Study of nutrition and the nutritional content of the foods we eat, eating patterns, cultural diversity of meals, keeping a healthy weight and healthy and safe food practices in the store and in the kitchen.

(Grades 9 - 10) (05044152)

Lab fee - \$10.00



### CULINARY ARTS

Introduction to the food service industry, safety and sanitation, professional dress, sustainability in the kitchen, small and large equipment, using recipes, cooking principles, table service, culinary principles, exploration of a wide variety of foods and preparation techniques, team work and leadership emphasized.

*The prerequisite for this course is Nutrition.*

(Grades 10 - 11) (05087252)

Lab fee - \$10.00



### PROSTART - 1

Study of the technical aspects of food preparation in the commercial kitchen through the preparation and service of meals according to a production schedule. Emphasis is placed on team work, professionalism, guest relations, and table service. Food Handlers Certificate from New Mexico and from Texas is required. ProStart Year 1 Exam is available for certification. Opportunity to participate in ProStart State & National Competition available.

\*\*\*When you take this course you will also be enrolled in **Advanced Foods (05127175)** so you can receive credit for the extra period you will spend in the kitchen/lab.

*The prerequisite for this course is Nutrition & Culinary Arts.*

(Grades 11-12) (05327253)

\$20.00 lab fee for 2 courses



### PROSTART - 2

Advanced course that prepares students to enter the food service industry. Students will plan, prepare, and serve meals for sale for in-school groups. Students are also responsible for a Capstone Project; the designing, planning, and execution of a four-to five-course meal for an event. Food Handlers Certificate from New Mexico and from Texas are required. ProStart Year 2 Exam is available for certification. Opportunity to participate in ProStart State & National Competition available.

\*\*\*When you take this course you will also be enrolled in **Hospitality (05287250)** so you can receive credit for the extra period you will spend in the kitchen/lab.

*The prerequisite for this course is Nutrition, Culinary Arts I, & ProStart I.*

(Grades 11-12) (05337235)

\$20.00 lab fee for 2 courses

### PRO-BAKE

The Pro-Bake class is independent of the hospitality pathway. This is an elective class Introduction to baking and pastry arts. Emphasizes an understanding of bakeshop fundamentals, explores the preparation of fresh ingredients, and provides the "how and why" of baking science and techniques.. Food Handlers Certificate from New Mexico and from Texas are required.

\*\*\*When you take this course you will also be enrolled in **Basic Applied Design (05077420)** so you can receive credit for the extra period you will spend in the kitchen/lab. The prerequisite for this course is Nutrition & Culinary Arts

(05097221) (Grades 11-12)

\$20.00 lab fee per for 2 courses

# Santa Teresa High School

## Law Enforcement Pathway

**INSTRUCTOR: SAM MARQUEZ**

### **Certifications Available – Precision Exams,**

#### **EXPLORATION OF PUBLIC SERVICE CAREERS**

Course exposes students to the duties, responsibilities, requirements, and career opportunities within public service. Course topics vary and may include (but are not limited to) the following: education; protective services; correction, judicial, and probation services; fire protection and firefighting; public administration; and social work. Course activities depend upon the career clusters explored.

**(Grades 9-10) (25014802)**

**\$10 Lab fee**



#### **COMMUNITY PROTECTION**

Course provides students with information regarding the personnel and agencies concerned with protection of the home, city, state, and nation. Topics may include civil defense and disaster preparedness; crime prevention; pollution control; fire prevention and control; legal and social systems and principles; and public health. These topics may be explored as a community resident and citizen using these services, or as one interested in pursuing a career in public service.

*The prerequisite for this course is Exploration of Public Service Careers*

**(Grades 10-12) (25037802)**

**\$10 Lab fee**



#### **CRIMINAL JUSTICE ASSISTING**

Course trains students to understand and apply the principles and procedures essential to the U.S. criminal justice system. The principles and structure of the justice system and the law are explored; course content also typically includes traffic control, investigation, search and arrest, laboratory, forensic, and trial procedures. Students may also learn CPR and first aid skills, personal defense tactics, and crime prevention techniques.

*The prerequisite for this course is Community Protection*

**(Grades 10-12) (25137802)**

**\$10 Lab fee**



#### **PUBLIC, PROTECTIVE, AND SOCIAL SERVICES-OJT (CJ)**

Course, work experience is gained within the public service sector. Although goals may be set cooperatively by the student, teacher, and employer, classroom attendance or experience is not an integral part of the Public, Protective, and Social Services-OJT experience.

*The prerequisite for this course is Criminal Justice Assisting*

**(Grades 11-12) (25977983)**

**\$10 Lab fee**

# Santa Teresa High School

## Computer Programming and Cybersecurity Pathway

**INSTRUCTOR: SAUL NUNEZ**

### Certifications Available – Precision Exams,

#### PLTW – COMPUTER SCIENCE ESSENTIALS

With emphasis on computational thinking and collaboration, this year-long course provides an excellent entry point for students to begin or continue the PLTW Computer Science K-12 experience. In CSE, students will use visual, block-based programming and seamlessly transition to text-based programming with languages such as Python to create apps and develop websites, and learn how to make computers work together to put their design into practice. Computer Science Essentials helps students create a strong foundation to advance to Computer Science Principles, Computer Science A, and beyond. (A “Project Lead the Way” course).

**(Grades 9-12) (03440200)**

**\$10 Lab fee**



#### AP COMPUTER SCIENCE PRINCIPLES

AP Computer Science Principles introduces students to the foundational concepts of computer science and challenges them to explore how computing and technology can impact the world. With a unique focus on creative problem solving and real-world applications, this course prepares students for college and career. It is intended to prepare students for the optional Advanced Placement Exam in this subject and should follow the published College Board guidelines.

**(Grades 9-12) (0336)**

**\$10 Lab fee**