CAREER TECHNICAL EDUCATION PROGRAMS (APPLIED ACADEMICS)

BUSINESS

CRIMINAL & CIVIL LAW

4540 CR/CIVLAW Semester 9-12

This is a very exciting class that will challenge your perspective of law and punishment as we explore controversial cases and issues. Criminal and Civil Law examines the types of crimes, legal rights, as well as the civil consequences faced after a crime.

Criminal and Civil Law class also examines torts, individual rights and liberties, contract law and juvenile law.

A field trip to criminal law will occur and there will be guest speakers such as lawyers, a police officer, among others.

ESLRs: 1, 2, 3, 4, 5, 6

Homework Estimate: No homework

LAW 1

4541 LAW 1 Year 11-12

Law 1 is a UC recognized class that fulfills the "g" requirement (see counselor). Law 1 is an exciting legal course targeting students who may consider a career in the legal field. This exciting course takes the students through the criminal justice system, criminal law, Constitutional law, procedural law, adjudication process and a in depth look into landmark court cases. Students also examine the Bill of Rights and how they apply to law.

There are many expert guest speakers, four mock trials, debates and a field trip in this year's course.

The following outcomes/ESLRs can be addressed through this course:

- ESLRs: 1, 2, 3, 4, 5, 6
- Homework: Most work is completed in class. Little to no homework.

FLASH - PHOTOSHOP CLASS

4913 FLASHPHOTO Semester 9-12

This semester class teaches students the use of software animation, (Flash Software) and how to edit and enhance photographs using advanced Photoshop skills.

The course teaches two industry standard software's which are used by Web masters to create higher caliber Web sites. (Gunn already owns the software and licenses for Flash and Photoshop.)

This course would target the student who already is Web proficient and wishes to enhance skills used to create commercial Web sites.

Project-based class, no written test.

At the end of the semester, the student will be able to:

- Proficiently use Flash Software
- Proficiently use Photoshop Software
- Create animation
- Edit, alter and correct photographs
- Create Web sites that are professional and worthy to industry standards
- Increase the students software knowledge
- Increase the students hardware knowledge

The new Flash/Photoshop course will be project oriented and taught in the PC lab.

ESLRs: 1, 2, 5, 6, 7

Homework: Students have no homework.

MULTIMEDIA DESIGN & APPLICATIONS

5853 MULMEDDES **Semester** **9-12**

Prerequisite: None

Students will be introduced to industry-standard multimedia tools, skills, and materials that they can manipulate as the primary means of communication and creative expression. In this hands-on course students will explore basic applications of various multimedia tools to create visual, aural, and written projects in both digital and print format. The subjects taught in this class include basic photo and video editing, audio recording, and Web applications. Students will also learn to properly format technical documents using word processing, spreadsheets, and digital presentation software. This course will provide students with knowledge of media literacy, including Web ethics, copyright and fair use, and internet safety concepts.

ESLRs: 1, 2, 3, 4, 6, 7

Homework Estimate: Minimal homework

VIDEO PRODUCTION 1

1033 VIDEO PROD **Fall Semester** **9-12**

Prerequisite: None

This course provides students with opportunities to work on individual and small group video projects. Workshop methods will be employed to provide students with basic understandings of principles and practices of videography. Students in this course will be expected to develop project treatments, write and rewrite shooting scripts, develop storyboards, film and edit projects. An exhibition of student works will be held each semester.

ESLRs: 1, 2, 4, 6, 7

Homework Estimate: Minimal homework

VIDEO PRODUCTION 2

1034 VIDEO TWO **Spring Semester** **9-12**

Prerequisite: Video Production 1.

In this course students will investigate advanced techniques of video production: directorial style, script development, camera technique, editing, etc. Evaluation of the aesthetic principles of videography, investigation of selected historical topics, and "hands-on" training in video technique will form the basis of most class sessions. Each semester course will culminate in an exhibition of original student video projects. Students who are approved by the teacher may choose to take this course as independent study.

ESLRs: 1, 2, 4, 6, 7

Homework Estimate: Minimal homework

VIDEO PRODUCTION 3

1029 VIDEO THREE **Semester** **9-12**

Prerequisites: Video Production 1, Video Production 2.

This advanced course will cover professional video and audio post-production methods. Through project-based assignments students will explore motion graphics for film/television, video compression, color corrections, streaming video for the Web, and digital audio. The semester will culminate with an exhibition of student work at the Gunn Film Festival and a digital portfolio.

ESLRs: 1, 2, 4, 6, 7

Homework Estimate: Minimal homework

BROADCAST VIDEO 1 – STUDIO PRODUCTION

1039 BRDCASTVID Year 9-12

Prerequisite: None

This course serves to broadcast campus news and selected features to the Gunn High School community. Workshop methods and "hands-on" training will be employed to provide students with a basic understanding of the principles of broadcast television production and video journalism. This class will meet in zero period from 7:00 a.m. to 8:00 a.m. daily.

ESLRs: 1, 2, 4, 6, 7

Homework Estimate: Minimal homework

BROADCAST VIDEO II – FIELD PRODUCTION

1040 ADBSTVDPRO Year 9-12

Suggested Prerequisite: Video Production 1.

Broadcast Video II operates as a project-based classroom where collaborative groups will be responsible for creating student produced school video features. All student productions will be broadcast over television and the Web. Basic field video production will be applied to explore various types of programs such as student documentaries, sports, and events. Speaking and interpersonal abilities are integral to this class for interviews and appearances on camera. This course will address the hands-on use of technology, primarily cameras, video editing software, podcasts, and Web streaming.

ESLRs: 1, 2, 4, 6, 7

Homework Estimate: Video productions will require additional time outside of scheduled class period.

INTRODUCTION TO ENGINEERING DESIGN

8569 Int Engr Des PLTW Year 9-12

Prerequisite: Concurrent enrollment in a college prep math AND science course. Open to 9-12th in any math and science course.

Introduction to Engineering Design™ (IED) is a high school level course that is appropriate for 9th or 10th grade students who are interested in design and engineering. It is a great introductory course for those who are curious about design and/or engineering and would like to try them out. The major focus of the IED course is to expose students to design process, research and analysis, teamwork, communication methods, global and human impacts, engineering standards, and technical documentation. Students will employ engineering and scientific concepts in the solution of engineering design problems. In addition, students use a state of the art 3D solid modeling design software package to help them design solutions to solve proposed problems. As well students will construct physical prototypes of their designs using rapid prototyping (3D printing) technology. Students will also learn how to document their work, and communicate their solutions to their peers and members of the professional community. IED is one of three foundation courses in the Project Lead The Way® high school engineering career pathways at Gunn. Students in this course have the opportunity to compete in regional and statewide 3-d design competitions hosted by tech companies and local universities each year.

IED is open to all 9-12th graders, aimed primarily at freshmen and assumes no previous knowledge. Fulfills the UC "g" Elective (Interdisciplinary) requirement OR the CTE graduation requirement.

See the Engineering (Project Lead the Way) section of the course catalog for more information. **STUDENTS MAY EARN COLLEGE CREDIT IN THIS COURSE WITH AT LEAST AN 85% AVERAGE (BOTH SEMESTERS) AND A SCORE OF 70% OR BETTER ON THE FINAL EXAM. IN ADDITION, STUDENTS CAN EARN AN AUTODESK INVENTOR PROFESSIONAL CERTIFICATION BY PASSING THE ONLINE EXAM ADMINISTERED BY AUTODESK.**

Homework Estimate: ~2 hours per week

PRINCIPLES OF ENGINEERING

5090 Prnc of Engr PLTW **Year** **10-12**

Prerequisite: Introduction to Engineering Design, Algebra or above (pass)

Co-requisite: Concurrent enrollment in a college prep math AND science course. Open to 10-12th in any math and science course. 9th graders may enroll only with prior approval from the instructor.

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 careers. 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.

To be successful in POE, students should be concurrently enrolled in college preparatory mathematics and science. Students will employ engineering and scientific concepts in the solution of engineering design problems. Students will develop problem solving skills and apply their knowledge of research and design to create solutions to various challenges. Students will also learn how to document their work and communicate their solutions to their peers and members of the professional community.

Principles Of Engineering is the second of three foundation courses in the Project Lead The Way high school engineering program. The course applies and concurrently develops secondary level knowledge and skills in mathematics, science, and technology. Students in this course will have the opportunity to compete in regional and statewide design competitions hosted by local universities and tech companies.

The course of study includes:

1. Energy and Power:
   - Compound Machine Design
   - Solar Hydrogen Automobile Construction
   - Renewable Insulation Construction and Testing
   - Creation of a Renewable Electrical Energy Generation and Distribution System
2. Materials and Structures
   - Truss Design (statics), stress analysis
   - Bridge design and building
3. Control Systems
   - Machine Control Design (hardware/software interfacing)
   - Pneumatic Brake Design
   - Fluid Power Machine Design
4. Statistics and Kinematics
   - Self-propelled vehicle design
   - Kinematics design problems (projectile launchers)

POE is open to all 10-12th graders, and is open to freshmen with prior approval from the instructor. This course builds off of the Intro to Engineering Design course. Fulfills the UC "g" Elective (Interdisciplinary) requirement OR the CTE graduation requirement. This course assumes no previous knowledge.

See the Engineering (Project Lead the Way) section of the course catalog or the Gunn Web site for more information. STUDENTS MAY EARN COLLEGE CREDIT IN THIS COURSE WITH AT LEAST AN 85% AVERAGE (BOTH SEMESTERS) AND A SCORE OF 70% OR BETTER ON THE FINAL EXAM.

Homework Estimate: ~2 hours per week

DIGITAL ELECTRONICS

3246 DIGITAL ELEC PLTW (CTE Credit) **Year** **10-12**

3247 DIGITAL ELEC PLTW **Year** **10-12**

Prerequisite: Any Algebra (Pass) AND Introduction to Engineering Design

Co-Requisite: Concurrent enrollment in a College Preparatory Mathematics AND Science (any). Ninth graders may enroll ONLY with prior approval of instructor.

This course in applied logic encompasses the application of electronic circuits and devices. Students use computer simulation software to design and test digital circuitry prior to the construction of actual circuits and devices. Students will learn the theory as well as the process behind circuit modeling/design and building. Emphasis is placed on project-based and collaborative learning, and will prepare students for the type of thinking and skills required in the electronics and electrical engineering career and/or college study. This course closely follows the Project Lead The Way engineering curriculum. See the Engineering (Project Lead the Way) section of the course catalog for more information. **STUDENTS MAY EARN COLLEGE CREDIT IN THIS COURSE WITH AT LEAST AN 85% AVERAGE (BOTH SEMESTERS) AND A SCORE OF 70% OR BETTER ON THE FINAL EXAM.**

Digital Electronics counts for UC "G" elective (Math) credit OR CTE credit.

Homework Estimate: ~2 hours per week

PROJECT LEAD THE WAY PLTW

ENGINEERING (PROJECT LEAD THE WAY CURRICULUM)

WWW.GUNNPLTW.COM

AS OF 2010, GUNN IS A NATIONALLY CERTIFIED ENGINEERING (PLTW) HIGH SCHOOL!

1ST COURSE (FRESHMAN COURSE)

IED (Intro to Engineering Design) – must be concurrently enrolled in ANY math AND science course, open to 9th-12th graders. UC "G" Interdisciplinary Elective OR CTE. No experience or prior approval is needed for this course.

2ND COURSE (SOPHOMORE / JUNIOR COURSE)

POE or DE – (Principles of Engineering or Digital Electronics). UC "G" Interdisciplinary Elective OR CTE. For Principles of Engineering – must be enrolled concurrently in ANY math AND science course. Open to 10th-12th graders.

If a student wants, they can sign up for both IED and a second PLTW course, but IED is required as the first course. To take POE first, the student must get prior approval from the instructor.

IMPORTANT NOTE: FOR THE FORESEEABLE FUTURE, POE and DE WILL BE OFFERED IN ALTERNATING YEARS TO MINIMIZE THE IMPACT ON OTHER ELECTIVES. SEE YOUR COUNSELOR OR SEND AND EMAIL TO BHOLMES@PAUSD.ORG FOR MORE INFORMATION.

3RD COURSE (SOPHOMORE / JUNIOR COURSE)

POE or DE Digital Electronics – open to 10th-12th graders. For freshmen enrolling in Digital Electronics, they must be concurrently enrolled in one of the top two math lanes (Geo A/Alg 1A or above) AND a science course AND get prior approval from the instructor.

For 10th-12th graders, must be enrolled in ANY math AND science course concurrently and have passed any algebra with a C or better. UC "G" Math Elective OR CTE.

4TH COURSE (SENIOR / JUNIOR COURSE)

Engineering Research and Development (or EDD – Design and Development) – Must have passed IED and AT LEAST one other PLTW course with a C or better and have successfully completed (C or better) both their Physical Science and Life Science (UC "D") requirement. This is a yearlong research and development course that is planned for the fall of 2012. It hasn't been formally proposed yet or gone through the course approval process. But students need to be aware of what the course is in the event we offer it in 2012-13 so they will be prepared to meet the prerequisites. Students spend a year researching and developing a solution to a problem of their choosing, using their instructor and community mentors as guides. Students present to a panel of experts and apply for a patent at the conclusion of the course. EDD is a UC "D" Lab science course OR CTE course.

HOME ECONOMICS

Experienced and beginning students have the opportunity to use their expertise and learning skills. Each course stands on its own merit and can be taken independently or in combination. The best student projects will be exhibited at various times throughout the semester.

FABULOUS FOODS

5611 FOODS 11 Fall Semester 9-12

If you have a special liking for good food, even if you have never done much more than boil water, this class is for you. If you have had lots of experience in the kitchen but want to stretch your skills, want to explore the why's and how's of delicious foods, this is your course, too. An art as well as a science, good cooking rests on basic principles and skills that have been refined over centuries. These principles and skills are demonstrated and practiced in class in clear, easy steps. Plunge in and have fun! Your family and friends will relish the results while you build your reputation as a terrific cook.

The following outcomes/ESLRs can be addressed through this course:

- ESLRs: 1, 2, 4, 5, 6
- Homework: 1-2 hours per week

COOKING AROUND THE WORLD

5612 FOODS 12 Spring Semester 9-12

Join a classroom tour of famous food of the regional United States, Asia, Europe, Africa and more. In addition to selecting, preparing, tasting and enjoying famous dishes typical to each region, you will learn about preparation methods, serving techniques and special equipment specific to the dishes made. If you love to cook and enjoy trying new and different foods, this eighteen-week travelogue of international culinary delights is for you!

The following outcomes/ESLRs can be addressed through this course:

- ESLRs: 1, 2, 4, 5, 6
- Homework: 1-2 hours per week

FIBER ARTS

5613 FIBERARTS Semester 9-12

If you like dyeing, painting, and working with fabric, this is the class for you. In this course you will work with many different fibers and fiber applications. A few that will be covered are: quilting, embroidery, fabric painting, and machine appliqué. You will also learn to use the sewing machine to enhance your creativity. This course will allow you to create unique fabrics and craft items. Students are required to provide some materials, especially for the quilt.

The following outcomes/ESLRs can be addressed through this course:

- ESLRs: 1, 2, 4, 5, 6
- Homework: 1-2 hours per week

INTERIORS

5851 INTERIOR11 Semester 9-12

Do you care about your living environment? Do you want your room and your home to reflect you? In this course you will examine your likes and dislikes and to discover and develop your own personal sense of good taste. You will create your own floor plan, select and arrange furniture, fabrics, and accessories for your "dream home." You will learn architectural and furniture styles, line, design, form, color and texture and be able to combine them into the kind of living environment which best reflects you. You will also develop an ability to decorate on a budget and how to inexpensively change the appearance of a room. Students are required to provide some materials.

The following outcomes/ESLRs can be addressed through this course:

- ESLRs: 1, 2, 3, 4, 5, 6

SURVIVAL SKILLS FOR INDEPENDENT LIVING

5874 INDEPENLIV Semester 11-12

What do you know about renting an apartment, buying a computer online, insuring your car, opening a checking account, finding a job? Through this class you will gain self-reliance in all these areas and more, to help bridge the gap from home to "on your own." You will examine your goals, enabling you to make intelligent decisions about your future. You will learn to take care of your wardrobe, develop an understanding of nutrition and meal planning, credit, banking, insurance, and finding a place to live. You will be ready for successful living in the real world whether you are off to work or to college.

The following outcomes/ESLRs can be addressed through this course:

- ESLRs: 1, 2, 4, 5, 6
- Homework: 1-2 hours per week

NOTE: *In recent years there have been insufficient sign-ups to offer this course. If you choose Independent Living as an elective please be sure to indicate an alternate course.*

LEARNING TO TEACH A FOREIGN LANGUAGE

4498 TCH FOR LANG Semester 9-12

Students in this class will learn main principles of good second language instruction. They will learn how to plan mini-lessons, develop teaching strategies, and create objectives for these lessons. They will observe foreign language teachers in the department in order to see modeling of good instruction, work with small groups of students at Gunn, and collaborate with teachers at the feeder middle schools and elementary schools. The semester course will culminate with a final project involving teaching a 20-minute lesson in the target language to students at schools in our community. This course is geared for students who are interested in pursuing a career in teaching a second language or one in which a second language is very important. The methods course may also serve as a way for students to keep connected with their foreign language instead of doing an AP course or for those who have finished their foreign language requirement earlier in their high school studies.

COURSES OFFERED IN OTHER DEPARTMENTS THAT MAY BE TAKEN FOR CAREER TECH. ED. CREDIT

STAGE TECHNOLOGY

1087 STAGE TECH Year 9-12
1088 STG TECHII Semester 9-12

Stage Technology and Design is designed to integrate theoretical and practical knowledge of stage technology and design. Students will study the design and construction of sets, lighting, sound, and costumes, and apply their skills by developing design concepts and mounting productions from a variety of theatrical genres. By assuming vital roles in play productions, students will work effectively in leadership and ensemble situations, and experience the relationship of technical theatre to the theatrical event as a whole. Students will learn to operate theatrical equipment and tools safely, and use these skills to provide technical services for many school stage activities. This course satisfies the Career Technical Education Program requirement and Visual and Performing Arts requirement, and may be repeated for four years.

GRAPHIC DESIGN, COMPUTER ARTS

6262 GRAPH DES Year 10-12

Course Preparation: Art Spectrum, two semesters or equivalent

This course can be used to fulfill the Visual and Performing Arts requirement for the UC and CSU systems. This course can be repeated for credit for three years. Students in the second and third year of the course will focus on more complex problems in package, product, and advertising design, and advanced work will be done on the computer.

This is a beginning level survey course, exploring basic skills, concepts, and history in the visual arts. It is also the foundation course for all other art classes. The curriculum includes both two- and three-dimensional visual arts experiences, with emphasis on the development of technical, imaginative, and critical thinking skills. Lessons in basic drawing, color theory, painting, design, perspective, lettering, ceramics, and sculpture are taught. Additional lessons in architecture or printmaking may be included if time permits. Historical and cultural referencing is integrated into each unit of study. Oral and written reports are required.

District ESLRs addressed in this course:

- ESLRs: 1, 4, 6
- Homework Estimate: 2 hours per week on average

GRAPHIC PUBLICATION (YEARBOOK) BY APPLICATION ONLY

6167 GRPD/YRBK Year 10-12

Suggested Course Preparation: Positions on the graphic production/yearbook staff are awarded through an application-interview process, which occurs between January and February and is announced in the school bulletin. Priority will go to students with prior photography, computer, graphic design, or past yearbook experience. Instructor and editor approval is required in all cases. The graphic production/staff produces the school yearbook; thus, staff members must have the necessary skills. Instruction in computer graphic, layout, design, and copy preparation will be provided during the first quarter. Those applying for a photography position must have successfully completed a beginning photography course and will be required to learn studio lighting for portraiture. All students are required to spend time in addition to class hours working on the book, and each student must sell a certain amount of yearbook advertising, to be determined by budgetary needs. Editorships are awarded to the most qualified students who have served on the yearbook staff.

District ESLRs addressed in this course:

- ESLRs: 1, 6, 7
- Homework Expectation: See course description

ANIMATION IN A VIRTUAL WORLD

3283 ANIMATION Semester 9-12

The student will use the computer to tell stories or write games. It incorporates 3D Sims-quality characters and objects (literally—these will be created by Electronic Arts!) combined with a drag-and-drop programming environment to make interesting animations easy. Along the way, the student will learn about 3D modeling, loops, variables, conditionals, event-based programming, concurrent programming, list processing, storyboarding, and object-oriented programming.

Normal homework load 1-2 hours per week.

ADVANCED JOURNALISM

1453 ADV JOURN Year (By application only)

This course does <u>not</u> meet UC English requirements.

Through such activities as reading and analyzing professional models, interviewing, research and writing, revising and editing, students will demonstrate the mastery of journalistic writing and ethics needed for publication of their work in the school and professional press. Students will acquire the technical skills needed for desktop publishing. At least a "B" in Non-Fiction Writing (Beginning Journalism) is a prerequisite for this course. The course may be repeated for district graduation credit, but currently has not received approval to substitute UC English elective credit. With approval of the instructor, this course may also satisfy the Career Technical Education requirement.

AP STATISTICS

2319 AP STAT Year 11-12

Required Course Preparation: "B" or better in Algebra II or equivalent.

The objective of this course is to provide the students with the equivalent of an introductory college-level statistics course for which Advanced Placement credit is an option (pending successful completion of an AP Exam). The course is open to all students who have successfully completed Algebra II or equivalent. Course content involves examination of exploratory data analysis, experimental and survey design, the study of random variables (including some probability theory), and inferential statistics for one and two variables. Graphing calculators and computers will be used extensively as an aide to statistical analysis.

This course fulfills math entrance requirement for the UC and CSU systems.

District ESLRs addressed in this course:

- ESLRs: 1, 2, 5, 6, 7
- Homework/Out of Class Work Estimate: 2 hours per week

ADVANCED PHOTOGRAPHY

6158 ADV PHOTO Year 10-12

Required Course Preparation: Beginning Photography, or instructor approval.

This course can be used to fulfill the Visual and Performing Arts entrance requirement for the UC and CSU systems.

This course builds on the skills taught in the PHOTO I class. Assigned work throughout the course will emphasize the technical as well as emotional, expressive and non-verbal communicative nature of the photographic medium. Students will master advanced skills in the use of small, medium, and large format cameras, portable and studio lighting techniques, and expand their knowledge of darkroom processes to include contrast control, black and white filters, dodging and burning printing techniques, and advanced film exposure and exposure methods.

This course satisfies either the Fine Arts or Career Technical Education Programs requirement and may be repeated for credit upon recommendation of the instructor.

Students who successfully complete this course will be able to demonstrate mastery of the advanced skills described above and expand understanding of current and historical directions in photography through completed works, assigned written reviews of exhibits and class critiques.

Senior Project: Students who are taking this course for a second year have the option to use the work produced as the focus of a senior project. Prior approval from the instructor is required.

District ESLRs addressed in this course:

- ESLRs: 1, 6, 7
- Homework Estimate: 2 hours per week on average

AP COMPUTER SCIENCE (COMPUTER SCIENCE 10)

2489 COMPSCI AP Year 11-12

Suggested Course Preparation: Both Programming Concepts and Programming in JAVA or permission by instructor.

The course is designed to prepare students for the Advanced Placement Exam. The course includes top down design iteration, procedures, functions, user-defined types, classes, arrays, files, sets, linked data structures, stacks, queues, pointers binary includes top down design iteration, procedures, functions,

user-defined types, classes, arrays, files, sets, linked data structures, stacks, queues, pointers binary trees, searching and sorting algorithms. The students should be able to analyze code, in terms of functionality, efficiency, readability, reusability, modularity, and meaning.

This course fulfills G elective entrance requirement for the UC and CSU systems.

District ESLRs addressed in this course:
- ESLRs: 1, 2, 5, 6, 7
- Homework/Out of Class Work Estimate: 4 hours per week

PROGRAMMING CONCEPTS (COMPUTER SCIENCE 1) REPLACES COMPUTER MATH

2391 PROGCONCPT Semester 10-12

Suggested Course Preparation: Completion of Algebra 1A, concurrent enrollment in Algebra 1A, or instructor permission.

The purpose is to give the students an introduction to programming basics. At the end of the class, the students should be able to write programs using functional and sequential programming. The student should have knowledge of concepts such as iteration, recursion, data structures, file I/O, and data abstraction.

This course fulfills G elective entrance requirement for the UC and CSU systems.

District ESLRs addressed in this course:
- ESLRs: 1, 2, 5, 6, 7
- Homework/Out of Class Work Estimate: 1 hour per week

PROGRAMMING USING JAVA (COMPUTER SCIENCE 2)

2366 PROGJAVA Semester 10-12

Suggested Course Preparation: Programming Concepts or instructor permission.

The student should finish this course with a basic, working knowledge of how to write simple JAVA programs. The student will learn how to transfer the techniques from programming concepts to another language. Additional concepts will include an emphasis on object-oriented programming. Graphics, program design, and the distinction between a compiled and interpreted language will also be part of the course.

This course fulfills G elective entrance requirement for the UC and CSU systems.

District ESLRs addressed in this course:
- ESLRs: 1, 2, 5, 6, 7
- Homework/Out of Class Work Estimate: 1 hour per week

INDUSTRIAL TECHNOLOGY

AUTOMOTIVE TECHNOLOGY

5043 AUTO 1 Year 9-12

This course assumes no previous knowledge about automobiles and their operational systems.

The course is designed for the owner/driver, and emphasizes the understanding of the operation of automotive components, consumer awareness, preventive maintenance practices, tune-up procedures, elementary trouble analysis, and minor repairs. Approximately 40 percent of the class time is devoted to discussions and demonstrations and 60 percent to related shop activities on shop units and personal automobiles. This is the type of course automobile owners wish they would have taken.

District ESLRs addressed in this course:
- ESLRs: 1, 4, 6, 7
- No homework is assigned for this class but special projects/events may require additional out of class time to complete them.

AUTOMOTIVE TECHNOLOGY

5050 AUTO 2 Year / Age 16 (ROP) 11-12

Suggested Course Preparation: Auto 1 or permission of the instructor.

Designed for the student who desires more information, experience and proficiency related to automotive operation and repair. Instrument troubleshooting of electrical systems, brake systems and brake service, and suspension systems are but a few of the topics explored in depth in the course. Certain operations and projects are required but adequate time is provided for personal projects and problems. Competent students who wish to be teacher aides or desire further grooming for employment can make special arrangements for a third year with the instructor's permission. They will be classified as teacher aides or special service.

District ESLRs addressed in this course:

- ESLRs: 1, 4, 6, 7
- No homework is assigned for this class but special projects/events may require additional out of class time to complete them.

ENGINEERING TECHNOLOGY (ROP)

8574 ENGN TECH Year 11-12 or consent of instructor
8601 ENGNTECH11 Semester 11-12 or consent of instructor

Engineering Technology is a survey course designed to create enthusiasm for the Engineering Careers. This class is a popular elective that is open BY APPLICATION ONLY. Students who are accepted and enroll in Engineering Technology are automatically included in the Gunn Robotics Team. The curriculum is designed to fit the needs of the four-year college bound and the two-year "Tech Prep" students. Conceptual instruction includes student teams learning the classic problem solving cycle through informal classroom competitions. Group dynamics and brainstorming techniques are emphasized. Student teams compete in a variety of national and international problem solving competitions.

Robotics, Basic programming, electronics, computer integrated manufacturing, computer graphics, and AutoCAD design technologies will be explored by all students. Industry standard equipment is available to the students. Scientific principles, mathematical concepts, and communication skills are accentuated on activity-oriented approach.

District ESLRs addressed in this course:

- ESLRs: 1, 2, 3, 4, 5, 6, 7
- Out of Class Time: Variable but time commitment increases considerably in the weeks prior to competition.

BIOTECHNOLOGY: THEORY & PRACTICES (ROP) / SCIENCE

3955 BIO TECH Year 11-12

Credit:

- Satisfies University of California entrance "d" requirements for science
- Satisfies high school graduation requirement for Tech Ed/ROP
- Optional units available from Foothill College Biotech Program

Prerequisites: Successful completion of Introductory Biology; completion of or concurrent enrollment in Chemistry.

Strongly Recommended: Concurrent enrollment in Physics, Astronomy, or AP-Biology. Other students need to discuss eligibility with the instructor.

This course will introduce students to the theoretical aspects of Biotechnology (Cell Biology, Microbiology, Molecular Biology, Immunology) and societal issues arising from this new technology. Hands on laboratory activities will reinforce theoretical information and teach lab safety, data analysis, the scientific method, and related computer skills. This course will include topical speakers from biotechnology industry and research and field trips to visit nearby biotech industry sites and labs. *(See course listing in Science.)*

District ESLRs addressed in this course:

- ESLRs: 1, 2, 3, 4, 5, 6, 7
- Homework Estimate: approximately 3 hours per week and 1 extra hour per week during project time.

JOB TRAIN

Is a private non-profit organization of long standing existence located in Menlo Park. It is well known for its hands-on approach to technical training. Where implemented, School After School for Successful Youth (SASSY) is an exemplary program with high levels of community support. The method of training and the opportunities provided by Job Train match the needs of those students who are at risk of not meeting graduation requirements.

PAUSD and Job Train have signed an MOU which will allow for ten (10) PAUSD high school students to participate in their SASSY program and obtain PAUSD credit. The courses offered classes are in the areas of:

- Culinary Arts
- Electronics
- Office Skills
- Desktop Publishing
- Digital Video Editing (10 units of credit each)
- Entrepreneurship and employment training program
- Hypertext Markup Language/Web Page Design (5 units of credit each)

Please contact Dave Hoshiwara for further information 856-0735.

WORK EXPERIENCE

WORK EXPERIENCE EDUCATION PROGRAM

8484 GEN WEEP II (May be taken for a full year) 11-12

Work Experience is a program that combines classroom instruction with part-time student employment. Juniors and seniors are eligible to enroll in this program. Attain your own job (some boundary limits) or the Work Experience teacher will help you find a job. Work Experience students are given the first opportunity to apply and interview for jobs but employment cannot be guaranteed.

Variable credit is based on the number of hours worked during the semester and attending class once a week. Work Experience may be taken without a job for 1.5 credits. Class meets only on Tuesday at Gunn from 6:00-7:00 p.m. or at Paly from 3:05-4:00 p.m. All businesses must comply with labor laws and regulations concerning Workers' Compensation Insurance, Social Security, and Income Taxes. An employer-employee relationship must exist. Work Experience qualifies for the Career Technical Education credit. Sign up for WEEP period H.

For more information see Mrs. Gyves, Work Experience Coordinator in the College and Career Center 354-8221 or Paly 329-3816.

EXPLORATORY EXPERIENCE

EXPLORATORY EXPERIENCE

8421 EXPL EXP11 Semester 10-12

Exploratory Experience is an unpaid off-campus course that provides students with an opportunity to explore their specific career interests by direct observation and a hands-on experience. Professionals or individuals with established expertise serve as mentors in their specific fields for students in this program. Placement in this program is limited to experiences that are developed through the school district and excludes community organizations such as clubs, private lessons, and non-career focused service. Students are not enrolled until they have met with the coordinator and a suitable post is located. Class time is by arrangement with the coordinator. Exploratory Experience qualifies for Career Technical Education credit. Sign up for Exploratory Experience, period H.

For more information, see or phone the coordinator: 354-8221 or 329-3816.

Regional Occupational Program (ROP)

The North Santa Clara County Regional Occupational Program is a cooperative technical education effort serving northern Santa Clara County. Courses are offered to high school juniors and seniors 16 years or older. ROP classes expose students to a variety of learning opportunities as they acquire knowledge and skills which could introduce them to possible careers and college majors, or assist them in finding employment/career immediately following high school, or in securing employment to help defray college costs. The free, hands-on training makes learning exciting and fun. ROP courses are offered on local high school and college campuses or at local community sites. All courses grant elective or Career Technical Education Programs graduation credit with many offering community classroom CC (non-paid) or cooperative classroom COOP (paid) on-the-job training. Students register for ROP classes at the same time they fill out their yearly high school class program. Through 2+2 articulation agreements with De Anza and Foothill Colleges, upon the completion of stated competencies, students may move into similar programs with advanced placement status or acquired college credit.

For more information, please contact 868-9333.

On-Campus ROP Courses

(See descriptions in Career Technical Education Programs.)

5955 Bio Tech
8564 Auto Tech
8574 Engn Tech
8611 Web Page Des

ROP Courses

Administration of Justice (ROP)
Athletic Training/Sports Medicine (ROP)
Automotive Technology (ROP)
Biotechnology (ROP)
Careers with Children (ROP)
Commercial Art and Graphic Design (ROP)
Computer Assisted Accounting (ROP)
Computer Information Technology (ROP)
Computer Networking (ROP)
Computer Programming – JAVA (ROP)
Computer Repair/Maintenance (ROP)
Computer Aided Design (CAD) (ROP)
Cosmetology (ROP)
Culinary Careers (ROP)
Desktop Publishing (ROP)
Engineering Technology (ROP)
Training for Transition/Special Needs (ROP)
TV/Film/Video (ROP)
Web Page Design (ROP)

If you are interested in any of these programs please contact the ROP Coordinator at (650) 868-9333.

Job Train

Is a private non-profit organization of long standing existence located in Menlo Park. It is well known for its hands-on approach to technical training. Where implemented, School After School for Successful Youth (SASSY) is an exemplary program with high levels of community support. The method of training and the opportunities provided by Job Train match the needs of those students who are at risk of not meeting graduation requirements.

PAUSD and Job Train have signed an MOU which will allow for ten (10) PAUSD high school students to participate in their SASSY program and obtain PAUSD credit. The courses offered classes are in the areas of:

- Culinary Arts
- Electronics
- Office Skills
- Desktop Publishing
- Digital Video Editing (10 units of credit each)
- Entrepreneurship and employment training program
- Hypertext Markup Language/Web Page Design (5 units of credit each)

Please contact Dave Hoshiwara for further information 856-0735.