

# CAREERS & TECHNOLOGY

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## **BUSINESS**

### **DESKTOP PUBLISHING • 806**

Grade Level: 9, 10, 11, 12                      Length: Semester  
Students will focus on Microsoft Word (in-depth), Publisher, and PowerPoint. The new 2007 MS office software has many new and innovative additions. Learn about the ribbon, galleries and the new default file formats. Type manipulation and formatting of text and graphics with the reader in mind will be taught. The student will learn some of the finer details that will separate his/her papers and presentations from the average student and provide entry-level job skills.

### **INFORMATION MANAGEMENT • 807**

Grade Level: 9, 10, 11, 12                      Length: Semester  
The use of spreadsheets and databases is prevalent in almost every occupation in today's society. This class will help students master the concepts and applications associated with Excel spreadsheets and Access databases. Students will work with a variety of mathematical functions, formulas, 3-D formulas, relative and absolute references in an Excel document and then chart data and link or embed data and charts to create professional documents. Students will also learn to design a database for specific purposes and experience the procedures for importing and exporting data from/to another source, designing forms for input into a database, and how to manipulate the design of output. The merging of data and file sharing will also be covered in applications and projects within this course. This course is a must for all students as they must be able to effectively use this type of software for many higher education and work-related projects.

### **WEB PAGE DESIGN • 803**

Grade Level: 9, 10, 11, 12                      Length: Semester  
(Prerequisite: A grade of "C" or better in Computer Science or Desktop Publishing. The ability to multi-task is essential.)  
Students will use a web page editor and HTML to develop and maintain a personal web page. Students will incorporate the following multimedia elements into a high level PowerPoint presentation: sound, video, and graphics from a variety of sources.

### **BUSINESS & PERSONAL LAW • 810**

Grade Level: 10, 11, 12                      Length: Semester  
This is a survey course covering the principles of business, personal law and the American legal system. Additional areas covered will include criminal, civil, contract, and family law. Students will receive first-hand knowledge through mock trials and a criminal trial field trip, funds and cases permitting.

### **LEADERSHIP & EFFECTIVE TEAM BUILDING • 804**

Grade Level: 9, 10, 11                      Length: Semester  
This project-based leadership course develops student understanding and skills in such areas as emotional intelligence, professional development, and communication. Students acquire and understanding and appreciation of the need for leadership at school, at home, and in the community. Exposure and membership in school-based organizations such as DECA, BPA, FCCLA, Key Club, Student Council, and Natural Helpers and others will be incorporated. Throughout the course, students are presented problem-solving situations for which they must apply academic and critical thinking skills. The implementation of a service learning project with a school or community-based organization will be an important part of the course. Some basic concepts important to business and marketing careers will be covered as well. Colleges look more and more at community service and leadership roles as criteria in the admissions process, and this course is a great way to get started early in your high school career. Students must be members of at least one school-based organization and pay the appropriate dues for that organization.

### **HOSPITALITY & TOURISM MARKETING • 805**

Grade Level: 9, 10, 11, 12                      Length: Semester  
Students interested in a career in the hospitality and tourism business should understand the entire realm of the different opportunities available to them in these areas. This course will provide the student with an overview of tourism and lodging; restaurant and managed services; recreation; gaming entertainment; and convention management. It will brief the student on the operational areas within the hospitality industry which include leadership/management, marketing, human resource management, accounting, finance, cost control, and hospitality information technology.

## **MARKETING 1 • 815**

Grade Level: 10, 11

Length: Year

This course is designed as a college prep course in the field of marketing and economics. Areas of instruction include an introduction to business and marketing, economic principles, and customer service. Topics include local, national, and global economic concepts and issues; marketing research, customer identification, marketing strategies, selling, and customer service concepts; marketing math, merchandising, promotion, and business ethics; and job application and employability skills. Students will participate in ongoing computer simulations in retailing, stock market trading, sports marketing, promotion, or others that become available. Students develop organizational and leadership abilities through participation in DECA, An Association of Marketing Students, our national co-curricular organization. This mandatory co-curricular/vocational organization provides the means for students to apply the skills and knowledge they acquire in class. Students are required to participate in fund-raisers and the learning lab as a part of the class and the club. *Note: Junior students who are employed a minimum of 10 hours per week while enrolled in this course may receive an additional credit for working the entire school year and being concurrently enrolled in Junior Marketing/Business Co-op (work internship), course #817.* Dues: \$30 membership dues are payable to DECA.

## **MARKETING 2 & BUSINESS OWNERSHIP • 816**

Grade Level: 11, 12

Length: Year

This is a dynamic course in how to set up your own business, from a professional office of a doctor, lawyer, or engineer to the local service or retail stores that make up the majority of U.S. businesses. Students will learn the pros and cons of different ownership models, how to write a business and marketing plan, and how to manage the daily accounting and financial statements required. A computer program such as Quicken or a comparable product will be used in the accounting portion. Economic impacts of supply and demand, money, forecasting and profit maximization, along with marketing and promotional planning, budgeting, sole-proprietorship accounting, and management decision-making will provide a great background to go into business or just be an informed citizen. Guest speakers from bankers, economic development specialists, commercial realtors, to business owners will combine to make this one of the most useful classes you will ever take and a great course if you decide to pursue a business degree. Students will participate in ongoing computer simulations in retailing, stock market trading, sports marketing, promotion, or others that become available.

Students develop organizational and leadership abilities through participation in DECA; An Association of Marketing Students, our national co-curricular organization. This mandatory co-curricular/vocational organization provides the means for students to apply the skills and knowledge they acquire in class. Students are required to participate in fund-raisers and the learning lab as part of the class and the club. *Note: Junior and senior students who are employed a minimum of 10 hours per week while enrolled in this course may receive 1 or 2 additional credits for working the entire school year and being concurrently enrolled in Junior Marketing/Business Co-op (work internship) course #817, or Senior Marketing/Business Co-op (work internship), course #819 or #820 for 1 or 2 credits.* Dues: \$30 membership dues are payable to DECA.

## **JUNIOR MARKETING/BUSINESS CO-OP (WORK INTERNSHIP) • 817**

Grade Level: 11

Length: Year

(Prerequisite: Concurrent enrollment in Marketing 1 or 2. Students must maintain a 2.0 GPA or risk being dropped from co-op.)

Students receive on-the-job training as arranged by the employer, the instructor, and the student in a marketing or business related job. Students are expected to maintain cooperative working relationships with training station supervisors and personnel. Accurate and up-to-date work hours and assignments must be kept in student's in-class co-op folder. Students must maintain a grade of "C" in the marketing-related class. Work hours must average from 10 to 14 hours per week during the school year. Jobs must be with retail and/or service businesses in the Los Alamos/White Rock area unless permission is obtained from the instructor. LANL does not accept juniors. Students must participate in all class and DECA activities.

## **SENIOR MARKETING/BUSINESS CO-OP (WORK INTERNSHIP)**

- 819 - 1 credit (10-14 hours per week)
- 820 - 2 credits (15+ hours per week)

Grade Level: 12

Length: Year

(Prerequisite: Concurrent enrollment in Marketing 2. Students must have a minimum 2.0 GPA to be eligible for co-op.)

Refer to the in-depth description given for Marketing Junior Co-op. Accurate and up-to-date work hours and assignments must be kept in student's in-class co-op folder. Students must maintain a grade of "C" in the marketing-related class. Work hours must average from 10 to 14 hours per week for one credit and 15 to 20 hours per week for two credits during the entire school year. Students may work in town or at LANL. STUDENTS

SEEKING POSITIONS AT LANL must attend the LANL presentation on Tuesday, January 22, at lunch in Topper Theater and meet all application deadlines. Students obtaining employment with LANL through this opportunity must remain enrolled for the duration of their LANL employment in high school - no exceptions. LANL deadlines are FIRM and YOU MUST APPLY BEFORE MARCH 14 if you want to work this summer or next school year. This will be your ONLY CHANCE to apply.

### **ADVANCED TECHNICAL CO-OP**

- 827 - 1 credit (10-14 hours per week) Jr. or Sr.
- 828 - 2 credits (15+ hours per week) Sr. only

Grade Level: 12 Length: Year  
(Prerequisite: Concurrent enrollment in AP Computer Science, AP Calculus, AP Chemistry, AP Biology, AP Physics, or AP Statistics and the recommendation of the current science, math, or computer science teacher. All applicants for this co-op must have a minimum 3.5 GPA.)

Students will receive high school credit while working at Los Alamos National Laboratory (LANL) or a technical subcontractor. Positions must be in a highly technical field. The LANL definition of technical fields includes: accelerators, advanced concepts, defense sciences, chemistry, engineering, computing, biosciences, genomics, geology/geophysics, hazardous waste, linear and nonlinear studies, math, materials science, medicine, nuclear materials, manufacturing, nonproliferation, simulation, superconductivity, space sciences, testing and evaluation, physics, and theory. Employers will be required to fill out four evaluations per year. Students must maintain weekly wage and hour reports and complete assignments by deadlines. These will be checked and updated weekly in the co-op supervisor's classroom. Responsible behavior both at school and on the job is required. Extensive modifications to a student's schedule may be required to provide adequate time for work experience. Work hours must average 10-14 hours per week to receive 1 credit. Currently LANL is accepting applications from students who will be seniors next year. STUDENTS SEEKING POSITIONS AT LANL must attend the LANL presentation on Tuesday, January 22 at lunch in Topper Theater and meet all application deadlines. Students obtaining employment with LANL through this opportunity must remain enrolled for the duration of their LANL employment in high school - no exceptions. LANL deadlines are FIRM and YOU MUST APPLY BEFORE MARCH 14 if you want to work this summer or next school year. This will be your ONLY CHANCE to apply.

### **COMPUTER SCIENCE**

#### **COMPUTER SCIENCE • 350**

Grade Level: 9, 10, 11, 12 Length: Semester  
Students learn to design and write computer programs. Students begin with very simple programs and progress to more complex projects that perform calculations, play games, and work with graphics and images.

#### **COMPUTER GRAPHICS & MODELING • 351**

Grade Level: 9, 10, 11, 12 Length: Semester  
(Prerequisite: Computer Science.)

Topics in this course include an introduction to basic concepts of computer graphics and will include a significant unit on programming with OpenGL, a widely-used graphics package used in scientific models, simulations, and gaming. This class is offered every other year starting in the 2008-09 school year.

#### **COMPUTER NETWORKING & SECURITY • 352**

Grade Level: 10, 11, 12 Length: Year  
(Prerequisite: Computer Science or enrollment in Pre-Calculus 1 or higher)

This course focuses on the skills and knowledge necessary to create and secure a computer network. Topics include configuring switches and routers, connecting to a Wide Area Network, and network security. This course will prepare students for the Cisco Certified Entry Networking Technician certification exam.

### **ARTIFICIAL INTELLIGENCE**

Grade Level: 9, 10, 11, 12 Length: Semester  
(Prerequisite: Computer Science.)

Artificial Intelligence is taught every other year. It will not be offered during the 2008-09 school year. It will be offered during the 2009-10 school year.

#### **AP COMPUTER SCIENCE • 360**

Grade Level: 10, 11, 12 Length: Year  
(Prerequisite: Computer Science or concurrent enrollment in Pre-Calculus 1 or higher)

This course follows the College Board's AP curriculum for Computer Science. Topics include object-oriented programming, recursion, data structures and algorithms. Students prepare for both the A and the AB exams and choose which to take. Students are required to take an AP exam.

## **FAMILY & CONSUMER SCIENCES**

*Family and Consumer Science courses develop leadership and career readiness skills by participation in FCCLA, a co-curricular career preparation student organization. FCCLA dues are \$22 and payable to the FCCLA club treasurer. Membership is optional, but encouraged.*

### **CULINARY ARTS 1 • 630**

Grade Level: 9, 10, 11, 12                      Length: Semester  
This course develops basic skills in food preparation and management needed in the culinary arts career pathway. Laboratory work in a professionally equipped kitchen focuses on all major food types. Students operate the FACS restaurant/catering business once a month to gain work experience. Fee: \$25

### **CULINARY ARTS 2 • 631**

Grade Level: 9, 10, 11, 12                      Length: Semester  
(Prerequisite: Culinary Arts 1.)  
This course builds on the skills developed in Culinary Arts 1. Fee: \$25

### **PROSTART 1 • 632**

Grade Level: 10, 11, 12                      Length: Semester  
(Prerequisite: Culinary Arts 2.)  
This class builds on the skills developed in Culinary Arts 2. Job experience in the culinary field may lead to national certification by the Hospitality Business Alliance. This class links degree programs at Santa Fe Community College in culinary arts, Northern New Mexico Community College in food science, TVI in bakery and culinary arts, or New Mexico State University in hotel/motel management. Fee: \$25

### **PROSTART 2 • 633**

Grade Level: 10, 11, 12                      Length: Semester  
(Prerequisite: Prostart 1.)  
This course builds on the skills developed in Culinary Arts 2 and ProStart 1. The National Culinary Arts certification exam will be offered for advanced employment, scholarships, and college placement. Fee: \$25

### **CHILD DEVELOPMENT 1 • 636**

Grade Level: 9, 10, 11, 12                      Length: Semester  
This course will develop career and parenting skills for working with families, infants, and children. Class content includes decisions about parenting, pregnancy, and development from birth through school aged children. Hands-on activities, field trips, and simulations of infant care are included. The "Aspen Buddy" program builds relationships between students and first grade children.

At the Ark Day-care Center, students observe infants, toddlers, and pre-school children. Students also learn skills in baby-sitting. Course material in this class may contain readings or discussions in which topics of a sexual nature are presented.

### **CHILD DEVELOPMENT**

#### **2 • 637 3 • 638 4 • 639**

Grade Level: 9, 10, 11, 12                      Length: Semester  
(Prerequisite: Child Dev. 1 and approval of the instructor.)  
These courses build on the skills developed in Child Development 1. Students work for 8 weeks at Aspen Elementary School as teacher aides, gaining hands-on experience with children. Planning activities and field trips with the children, learning to teach simple lessons at the elementary level, and operating a community play school are included. This class links to post-secondary child development programs at UNM-LA and SFCC. Course material in this class may contain readings or discussions in which topics of a sexual nature are presented.

### **MONEY SMARTS • 640**

Grade Level: 10, 11, 12                      Length: Semester  
This course will teach students about how to be smart concerning money – how to earn it and manage it wisely in order to reach personal goals throughout life. Emphasis is placed on using financial services, realistic budgeting, career planning, credit, insurance, and savings.

### **LIFE SMARTS • 641**

Grade Level: 10, 11, 12                      Length: Semester  
This class develops life skills in food and nutrition, interior design, and human development. Course material in this class may contain readings or discussions in which topics of a sexual nature are presented. Course Fee: \$10

### **FASHION DESIGN AND FABRIC CRAFTS**

#### **1 • 645**

Grade Level: 9, 10, 11, 12                      Length: Semester  
This course develops skills in clothing selection, fashion design, and garment or craft construction. It also develops skills necessary to operate a sewing machine, a serger, and the computerized Bernina Artista 180. Students will analyze textiles to determine fabric use and care and sew for fun and/or profit. They will also explore employment opportunities in fabric industries and will participate in a fashion show. They may enter a project in the FCCLA Star Events competition. Students are expected to purchase their own project materials.

## **FASHION DESIGN AND FABRIC CRAFTS**

**2 • 646**

Grade Level: 9, 10, 11, 12                      Length: Semester  
(Prerequisite: Principles of Fashion Design and Crafts 1.)

This course is a continuation of Principles of Fashion Design and Fabric Crafts 1. It builds upon skills mastered, and progresses to more sophisticated and complex projects. Students will have the opportunity to participate in FCCLA competitions in Star Events and the school fashion show. Students are expected to purchase their own project materials.

## **TECHNOLOGY**

### **VIDEO PRODUCTIONS 1 • 617**

Grade Level: 10, 11, 12                      Length: Semester  
This course introduces students to current video production techniques that can be applied to a variety of disciplines throughout their careers. Units of instruction include basic communication, function and theory of the video camera, pre-production (treatment, scripting, and storyboarding), production, and post-production techniques. Students will receive information concerning occupational opportunities in video production. Hands-on practice will take place with digital camcorders. All editing is non-linear digital and will take place on state-of-the-art computers. Students work individually and in small groups to plan and execute productions. Written and taped assignments are to be completed both in and out of the classroom setting. A variety of promotional and instructional programs will be produced for LAHS student organizations. Fee: \$10

### **VIDEO PRODUCTIONS**

**2 • 618; 3 • 619; 4 • 620**

Grade Level: 10, 11, 12                      Length: Semester  
(Prerequisite: Video Productions 1 and permission of instructor)

This series of courses builds on the skills developed in the Video Productions course that precedes it. Advanced non-linear digital editing will be introduced. Student productions include the Senior video. These classes will focus the student into filmmaking, where they will have the opportunity to work with other students to complete their personalized project. Fee: \$10

### **ROBOTICS 1 • 642**

Grade Level: 9, 10, 11, 12                      Length: Semester

This course uses robotic applications to solve a variety of engineering challenges and competitions using electrical and mechanical systems. Students design, build, and program various robotic devices, using the engineering design process to refine their creations. Scientific and

engineering principles, as well as creative use of sensors and programming, will be emphasized. Fee: \$15

### **ROBOTICS 2 • 643**

Grade Level: 9, 10, 11, 12                      Length: Semester  
(Prerequisite: Robotics 1 and permission of instructor.)

This course builds upon the skills developed in Robotics 1 with more complex robotics and engineering challenges. Advanced programming skills will be involved, as well as the use of more complex electrical and mechanical systems and components. Robotic designs will incorporate a wider spectrum of technologies. The engineering process will be emphasized and creative thinking is a must. Fee \$15

### **CONSUMER AUTO MECHANICS 1 • 660**

Grade Level: 10, 11, 12                      Length: Semester

This course is for students who want to learn about the basic requirements necessary to care for his or her automobile. This course covers shop safety practices, automotive tools and equipment, various automotive systems, and consumer knowledge of the industry. Basic lab exercises may be performed on student vehicles; however, students are not required to have an automobile to take the course. Due to the nature of the course, all assignments are expected to be completed during class time. The lab is used as a supplement to the course work. Fee: \$15

### **CONSUMER AUTO MECHANICS 2 • 661**

Grade Level: 10, 11, 12                      Length: Semester

(Prerequisite: Grade of B or higher in Auto 1)  
This semester course builds on the skills learned in Consumer Auto. It is designed for those who are seriously interested in honing their skills in advanced auto mechanics. Emphasis will be on performing mechanical diagnostics and conducting advanced repairs as well as conducting mechanical and body fabrication. Fee: \$25

### **INTRO TO ENGINEERING DESIGN • 664**

Grade Level: 9, 10, 11, 12                      Length: Semester

This introductory course is focused upon the basic skills and knowledge of drafting as the universal language required for engineering design. Students will learn and apply sketching, geometric construction, multi-view drawings, dimensioning, sectional views, and pictorials. Scientific thinking and the engineering design process will be emphasized. Students will design, construct, test, and refine various projects to solve various engineering challenges. CAD software will be introduced in this course. Fee: \$15

**ADVANCED ENGINEERING DESIGN • 667**

Grade Level: 9, 10, 11, 12 Length: Semester  
(Prerequisite: Intro to Engineering Design)

Students will build upon the skills learned in Intro to Engineering Design to apply the engineering design process to longer duration, more advanced engineering challenges. Students will learn and integrate a variety of electrical and mechanical systems and gain knowledge in additional areas such as pneumatics, hydraulics, and advanced drive system components. A considerable amount of fabrication will be involved and students will utilize CAD software in their design process. Creativity and scientific thinking will be emphasized. Fee: \$15

**INTRO TO ARCHITECTURAL DESIGN • 665**

Grade Level: 9, 10, 11, 12 Length: Semester  
(Prerequisite: Intro to Engineering Design)

This introductory course includes the principles of architectural graphics and the theory and practice of construction design and technology. Students will also gain hands-on experience in studying the various architectural forces acting upon a structure. The imagination of each student will be inspired as she/he creates a professional set of working drawings and builds an architectural model. Various CAD programs will be utilized and an emphasis will be placed on energy efficient "green" environmentally sound designs. Fee: \$15

**ELECTRONICS 1 • 668**

Grade Level: 9, 10, 11, 12 Length: Semester  
(Prerequisite: completion of Focus on Algebra 1 or higher)

This course covers the principles of electricity and electrical circuits. Students learn to read schematics, calculate and measure fundamental quantities, and to choose the correct components for circuits. Several circuits are assembled and tested in the lab. Some homework is given. A calculator is required. Fee: \$15

**ELECTRONICS 2 • 669**

Grade Level: 9, 10, 11, 12 Length: Semester  
(Prerequisite: "C" or better in Electronics 1 and permission of instructor.)

This course builds on the skills developed in Electronics 1. Students will also explore digital electronics and integrated circuitry through lab work and PC simulation. The use of test equipment will be integrated into all activities as will some soldering. A solid background in algebra is needed. Calculators are required. Fee: \$15

**BUILDING TRADES 1 • 675**

Grade Level: 10, 11, 12 Length: Year  
Students who enroll in building trades will learn and develop skills in residential construction. The course will

cover safety practices and techniques used in industry today. Students will learn basic construction principles by studying building techniques in class before applying that knowledge through peel-off activities as well as the complete construction of an "off-site" built house. All construction will take place at the new Building Trades Compound. Building trades will also provide useful information on employment and information related to trades and industrial pursuits. The course requires 2 periods and counts for 2 credits.

**BUILDING TRADES 2 • 676 3 • 677**

Grade Level: 11, 12 Length: Year  
(Prerequisite: Building Trades 1.)

Building Trades 2 & 3 build on the skills developed in Building Trades 1. Students taking Building Trades 2 & 3 are expected to assume leadership roles in peel-off activities as well as the construction of the "off-site" built house. The course requires 2 periods and counts for 2 credits.

# ENGLISH

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**GENRE LIT & COMP 9 • 101**

Grade Level: 9 Length: Year  
This comprehensive course provides each student with reading experience in the major types (genres) of literature in addition to a working knowledge of standard grammar, vocabulary, and usage for composition. Students read novels, short stories, poetry, drama, and non-fiction selections and analyze them through discussions, compositions, and presentations. Reading and writing outside of class is required. Student initiative and achievement in both class work and homework will determine success in this course and placement at the sophomore English level. *Students who wish to go on to Advanced English in 10th grade must complete an extra project to be determined by the teacher and must maintain a minimum grade of B+ (88%).*

**READING 9 • 102**

Grade Level: 9 Length: Year  
This course is a required course for students who present an identified need in the areas of reading evaluation, synthesis, analysis, knowledge, translation, interpreta-

tion, and/or application skills. *Students will be identified specifically through standardized test results and teacher recommendation.* The class will have no more than 15 students.

### **READING 10 • 103**

Grade Level: 10

Length: Year

This course continues the skill building begun in Reading 9. *Students will be identified specifically through standardized test results and teacher recommendation.* The class will have no more than 15 students.

### **AMERICAN LIT & COMP 10 • 104**

Grade Level: 10

Length: Year

This course is designed to give the student reading experience in American literature and a continuation of the development of composition, grammar, usage, vocabulary, spelling, and speaking skills. Incorporated in the course is a historical or thematic survey of major American writers from the Puritans to the moderns. Emphasis in the literature study will be on close reading, historical background, literary analysis, and essay writing. Developing research skills and learning the techniques of writing a critical paper is also included.

### **ADV. AMERICAN LIT & COMP 10 • 105**

Grade Level: 10

Length: Year

(Prerequisite: recommendation of Genre Literature teacher. A student must have earned a minimum grade of B+ (88%) in Genre Literature and must have a signed recommendation from the current Genre Literature teacher. Students are required to complete an additional outside project in order to earn the recommendation. Students registered for Advanced American Lit and Comp 10 will be required to read an assigned novel over the summer and complete a written assignment related to the reading.)

This accelerated course is designed to give students a reading experience in American literature and to prepare them for potential AP course work. Incorporated into the course is a historic or thematic survey of American writers from the Puritans to the moderns and a continuation of the development of composition, grammar, usage, vocabulary, spelling, and speaking skills. Emphasis in the literature study will be on close reading, historical and literary background, note-taking, formal essay writing, research, and the development of pre-AP skills. Students will focus on more difficult works of American literature in order to prepare them for the AP English program. Students will be expected to do a considerable amount of reading and writing outside of class.

### **LITERATURE & COMPOSITION 11 • 107**

Grade Level: 11

Length: Year

This course engages students in becoming skilled readers and writers of literature from a variety of periods, disciplines, and rhetorical contexts. Students will read, analyze, discuss, and write about the course materials including full-length novels, plays, and essays. The students will continue to develop the skills of spelling, vocabulary, grammar, writing, literary analysis, listening, thinking, and speaking. Emphasis is given to the writing process, including a research project and a multi-media presentation. This course covers standards required for the 11th grade English credit.

### **AP LANGUAGE & COMP 11 • 108**

Grade Level: 11

Length: Year

(Prerequisite: B+ (88%) or better in Advanced American Lit/Comp 10 or a grade of "A" in American Lit/Comp 10 and a recommendation from the current English teacher. In addition, students must pass a pre-test.) Students who wish to take this course must possess strong writing skills as well as an appreciation for language. Students registering for AP Language and Composition 11 are *strongly* encouraged to register for Argumentation and Debate 1 or 2 as well. AP Language & Composition students will complete a summer reading and written assignment. It is the student's responsibility to pick up the assignment. This accelerated course engages students in becoming skilled readers of literature written in a variety of periods, disciplines and rhetorical contexts and in becoming skilled writers for a variety of purposes including, but not limited to, rhetorical analysis. Socratic discussion, extensive reading and vocabulary study, research, oral presentations and student-prepared lectures, extended writing assignments including both analytical and argumentative essays, language analysis and test preparation are integral to the course. Students are required to take the AP Language and Composition test in the spring. Students can expect to do a considerable amount of reading and writing outside of class.

### **WORLD LITERATURE & COMP 12 • 110**

Grade Level: 12

Length: Year

(Prerequisite: Lit/Comp 11 or Humanities.)

This course offers a survey of world literature covering Asian, African, European, Greek, classical and contemporary American, and British works in many genres. Critical papers and a research paper will be required. Other projects may include skits, speeches, creative writing, and multi-media projects.

## **AP LITERATURE & COMP 12 • 111**

Grade Level: 12

Length: Year

(Prerequisite: completion of AP Language and Composition 11 and recommendation from teacher. Students who have not taken the AP Language course must have an “A” in their current 11<sup>th</sup> grade course, a recommendation from the current English teacher, and have completed the assigned project. Students entering the course should have strong reading and writing skills. Summer work is also required)

This accelerated course offers intensive study of major writers of world literature from ancient civilizations to contemporary times. Students will be required to do in-depth analysis of literature from every genre and will be expected to share and present their analysis to the class. Analytical and argumentative essays and specific preparation for the AP Literature and Composition examination occur throughout the year. Writing assignments will comprise in-class timed essays and extensive papers that require research and the reading of literary criticism. Students are required to take the AP Literature and Composition test in the spring. Students can expect to do a considerable amount of reading and writing outside of class.

## **HUMANITIES • 195**

Grade Level: 11, 12

Length: Year

This two-block, broad-based course, covers topics such as religion, ethics, semantics, and culture. A practical goal is to prepare students for active engagement in the open discussion of critical ideas. The course will be thematic with a yearly question, e.g., status of the contemporary society, what it means to be human. Emphasis is upon class participation, critical reading, thinking, and writing. Some of this material may be controversial and student maturity is essential. The philosophy study requires good reading skills. This course covers standards required for an English credit and, because it meets every day, also fulfills the requirement for an elective credit.

## **YEARBOOK 1 • 164; 2 • 165; 3 • 166**

Grade Level: 10, 11, 12

Length: Year

(Prerequisite: completion of, or concurrent enrollment in, 10th grade English, permission from the instructor, and recommendation of current English teacher.)

Students learn journalistic and graphic techniques as well as sound business practices while producing the school’s yearbook. Specific areas covered include copy and headline writing, layout and design preparation, word processing, desktop publishing, picture selection, photography, advertising, and public relations. This course requires a considerable amount of time outside of class. Students must obtain an application for this

course from the yearbook adviser and apply in January. Those students who are accepted will be notified of the instructor’s decision before registration begins. These courses build upon skills developed in previous Yearbook courses. *Yearbook courses may not be used to meet NCAA Division I & II core English requirements.*

## **SPEECH COMMUNICATION • 168**

Grade Level: 9, 10, 11, 12

Length: Semester

This course places major emphasis on helping students overcome their fear of public speaking as well as teaching them to express themselves creatively and effectively through speaking with many purposes: to inform, to entertain, or to persuade. Students will have the opportunity to prepare and deliver speeches and to refine delivery skills. Emphasis is given to group dynamics, assuming leadership in a group, leading meetings, and increasing group efficiency.

## **CREATIVE WRITING • 170**

Grade Level: 9, 10, 11, 12

Length: Semester

The course is centered around the student’s creativity, developing both prose and poetry. The students are responsible for at least one piece of creative writing each day. Much of the class time will consist of daily writing in the areas of brainstorming, image building, editing, elements of writing, and imitating various prose and poetry styles. Most of the course work will be done in class.

## **SAT/ACT INTENSIVE PREPARATION • 171**

Grade Level: 10, 11, 12

Length: Semester

(Prerequisite: Students should be in Algebra 2, CORE Plus 3 or a higher level math course.)

This course is designed to prepare the motivated student for the SAT and ACT college entrance exams. The student concentrates on intensive vocabulary development from word lists and readings, contributing to the creation of a personal dictionary. Students will also study the technicalities of grammar tested on the SAT and ACT. The class will also cover test taking strategies and college preparation. The student will be using SAT/ACT software in addition to taking numerous SAT and ACT practice tests to minimize test anxiety through familiarity and confidence. Students taking this class are encouraged to take the ACT or SAT on the December or January dates (for the first semester class) unless deadlines require otherwise.

## **ARGUMENTATION AND DEBATE**

**1 • 180 2 • 181; 3 • 182; 4 • 183**

Grade Level: 9, 10, 11, 12

Length: Semester

This course is designed to introduce and promote in-

terscholastic competition in value and policy debate. Basic educational objectives of the course include critical listening and thinking skills, note-taking, logic, research and writing, effective presentational skills, advocacy and cross-examination. Students in this course may compete interscholastically in local speech tournaments. These courses build upon the skills developed in previous Argumentation and Debate classes.

## FINE ARTS

Department Chair: Dana Salmond

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### VISUAL ART

#### **COMPUTER ART 1 • 603**

Grade Level: 9, 10, 11, 12      Length: Semester  
Students will draw, shade, use perspective, and create compositions with computer tools. Students will also use HTML code as a creative tool. All compositions will be based on the elements and principles of design. Students are required to keep a portfolio. Fee: \$25

#### **COMPUTER ART 2 • 604**

Grade Level: 9, 10, 11, 12      Length: Semester  
(Prerequisite: Computer Art 1)  
Computers will be used as an art tool for creating digital images and interactive art. Sound editing and video will also be incorporated into interactive art work. Work will be based on historic, cultural, and contemporary art ideas. Students will be expected to study and write about art from the past, art from other cultures, and contemporary art and visually reproduce ideas from these studies. Fee: \$25

#### **2-D/3-D DESIGN • 606**

Grade Level: 9, 10, 11, 12      Length: Semester  
This course offers an introduction to basic design principles and their applications on the 2-dimensional service and 3-dimensional form. Students will study and gain hands-on experience in ceramics, metal work, printmaking, graphic design, and computer graphics. Fee: \$25

#### **FINE ARTS 1 • 609**

Grade Level: 9, 10, 11, 12      Length: Semester  
This course will study techniques in drawing, painting, two-dimensional design, and perspective based on principles and elements of design. Students will explore

media including graphite, colored pencil, pastels, pen and ink, and tempera to build skills for expressing and describing subjects and culture through art. Students will compile a portfolio of their work. Fee: \$25

#### **FINE ARTS 2 • 610**

Grade Level: 9, 10, 11, 12      Length: Semester  
(Prerequisite: Fine Arts 1)  
This course builds on skills developed in Fine Arts 1. Students will work with a broad range of media learning new skills and advancing techniques to create 2- and 3-dimensional art work. Students will create a portfolio of their work. Fee: \$25

#### **PHOTOGRAPHY 1 • 613**

Grade Level: 9, 10, 11, 12      Length: Semester  
This is a beginning course in the fundamentals of photography with emphasis on practical experience in the black and white medium. Students will examine the following subject areas: understanding the camera, fundamentals of design and composition, film exposure and printmaking, and mounting and matting prints. Dark-room experience will include film developing as well as enlarging and printing of students' negatives. Specific photographic assignments will place emphasis on camera controls and visual creativity. Each student's work will be critiqued on a regular basis. Participants must purchase their film, paper and mat board. A 35mm, manual style camera is required. Fee: \$25

#### **PHOTOGRAPHY 2 • 614**

Grade Level: 9, 10, 11, 12      Length: Semester  
(Prerequisite: Photography 1 and permission of instructor)  
This course is designed for advanced students who have a sound knowledge of film developing, printing, and composition and who want to explore further photographic techniques in the black and white medium. Subjects include concentration of black and white craft printmaking, development of personal ideas toward the photo essay and alternative materials and process methods. Student work will be critiqued on a regular basis. Each student will compile a portfolio of his/her work. Participants must purchase their own film, paper, and mat board. A 35mm, manual style camera is required. Fee: \$25

#### **PHOTOGRAPHY 3 • 615**

Grade Level: 10, 11, 12      Length: Semester  
(Prerequisite: Photography 2 and permission of instructor)  
Explores the basics of digital camera operation, digital image capture, and the electronic output of photographic images for both screen-based and printed media. Students will work through a series of technical and creative projects that provide a strong foundation in the

hardware, software, and techniques associated with digital photographic imaging. Students will be required to create a self-designed final project with the option to work in digital or film-based images. The semester will culminate in an exhibition of work created in the class. A digital camera is required. Fee: \$25

### **AP STUDIO ART 2-D DESIGN • 607**

Grade Level: 11, 12 Length: Year  
(Prerequisite: Two courses in Photography, Computer Art, or Fine Arts; portfolio review; and permission of instructor)

This course is offered for highly motivated students interested in building a portfolio of photography or design work for college admission and Advanced Placement. All students must schedule a portfolio review with the instructor before enrolling in this course. Students are required to spend a substantial amount of time outside of class working on their projects. The emphasis of the first semester will be on creating a large number of pieces, which explore a wide variety of approaches and techniques. The second semester will be devoted to students creating a series of works based on a central idea of the student's choosing. In addition to developing technical skills, this course provides an art historical foundation for art making, past and present. Slide presentations, written and visual critiques, and class discussion are all integral parts of the course. All students enrolled in the course must submit a portfolio for the national AP reading in May. Participation in studio visits, museum tours, gallery visits, and guest artist lectures is required.

### **DANCE**

#### **DANCE 1 • 650**

Grade Level: 9, 10, 11, 12 Length: Semester  
This course provides an introduction to classification and history of ballroom dancing, dance etiquette, and evaluation of dance performance. Included are American style waltz, tango, cha-cha, and swing. Basic footwork, technique and styling, partnering skills, and learning how to lead and follow in dance are covered. Activities include dance exercises, club dances, social dancing, choreographed routines and a final performance for the community. Fee: \$15

#### **DANCE 2 • 651**

Grade Level: 9, 10, 11, 12 Length: Semester  
(Prerequisite: Dance 1)  
This course builds upon the skills developed in Dance 1. New dances - foxtrot, mambo, rumba - are added to waltz, tango, cha-cha and swing, on a more advanced

level. The emphasis is on improving dancers' technical and performing skills. Choreographed routines in two of the dances will be presented in the final performance for the community. Fee: \$15

### **DANCE PRODUCTION & PERFORMANCE**

#### **1 • 652 2 • 653 3 • 654**

Grade Level: 10, 11, 12 Length: Year  
(Prerequisite: written permission of the instructor with audition required. Dance shoes are highly recommended.)  
Members are selected based upon prior experience, knowledge of dance technique, performing skills, effort, and commitment. Students will work in all four dance styles: American Smooth, American Rhythm, International Standard, and International Latin. Each couple will have a chance to work on choreography individually, in small groups, and in a formation. Activities will include dance contests, guest instruction, and performances for the community. Fee: \$25

### **DRAMA**

#### **STAGECRAFT 1 • 153**

Grade Level: 10, 11, 12 Length: Semester  
The technical theater course will be primarily responsible for building and painting scenery and hanging lighting for school and community productions. Students will learn tool use, scene painting and construction techniques, reading and understanding plots, and accepted safety practices. Students will also work on the other technical elements as needed and according to their interest. These include sound, lights, costumes, makeup, properties, and graphics. Fee: \$25

#### **STAGECRAFT 2 • 154**

Grade Level: 10, 11, 12 Length: Semester  
(Prerequisite: Theatrical Design 1, Stagecraft 1, and permission of instructor.)  
This technical theater course builds on skills learned in Stagecraft 1 and introduces the fly system. Fee: \$25

#### **THEATRICAL DESIGN 1 • 157**

Grade Level: 9, 10, 11, 12 Length: Semester  
This course will include a brief history of theater design and an overview of the elements of design, scenic painting, and construction techniques. Class activities include the reading and breakdown of a script, researching architectural and fashion styles, developing a design concept, drawing plans and elevations to scale, set renderings, model construction, model painting work in technical theater computer applications, storyboarding, and plot creations. Students will be able to specialize

in their technical theater area of choice including scenic, sound, lights, costumes, makeup, properties, and graphics. Students will present completed designs along with research used to arrive at the design concept. Fee: \$25

### **THEATRICAL DESIGN 2 • 158**

Grade Level: 9, 10, 11, 12 Length: Semester  
(Prerequisite: Stagecraft 1, Theatrical Design 1, and/or permission of instructor.)

This course will take a look at the development of 20th century theater and its interconnection with the art of filmmaking. The class will focus on elements of design (sets, sound, lights, costumes, makeup, properties, and graphics), scenic painting, and construction techniques that are used in both theater and film. Class activities may also include the designing, drafting, and model building for stage settings, and costume and technical theater plots for multi-scene productions for the theater. Fee: \$25

### **THEATER 1 • 172**

Grade Level: 9, 10, 11, 12 Length: Semester

This course requires unusual maturity on the part of students who choose to take it. The course will be divided into six units: Improvisation and Acting Exercises, Theater History, Scenes and Monologues, Elements of Technical Theater, Elements of Production Process, and the Audition Process. The content will be predominantly hands-on and will prepare the student for entrance into Theater 2 and auditioning for the stage.

### **THEATER 2 • 173**

Grade Level: 9, 10, 11, 12 Length: Semester  
(Prerequisite: Theater 1 and permission of instructor.)

This course requires unusual maturity on the part of students who choose to take it. The course will focus on the development of acting through six units: Improvisation and Acting Exercises Expanded, Advanced Character Development and Analysis, Stage Technique and Character Exploration, Makeup for the Stage, Audition Technique, and Play Production. The content will be predominantly hands-on and will prepare the student for Theater 3 and acting in a full-length production.

### **THEATER 3 • 174**

Grade Level: 10, 11, 12 Length: Semester  
(Prerequisite: Theater 1 & 2 and permission of instructor.)

This course takes a deeper look into working with emotions, developing believable characters, relating to others on stage, breaking down and analyzing a script, and researching, reading, and performing scenes from historical theater. Students will continue

their study through Advanced Improvisation and Acting Exercises, Script Analysis, Acting for the Camera and Commercial Production, Directing for the Stage, and Creating a Production. Students will be expected to select a play, design for it, and stage and block it for a final after-school performance for an invited audience.

### **THEATER 4 • 175**

Grade Level: 10, 11, 12 Length: Semester  
(Prerequisite: Theater 1, 2, 3 and permission of instructor.)

This course takes a deeper look into working with emotions, developing believable characters, relating to others on stage, breaking down and analyzing a script, and writing a one-act play. Students will develop their study through Advanced Improvisation and Acting Exercises Expanded, Advanced Script Analysis through Scene Study, One-Act Playwriting, Textual Analysis, Monologues for Professional Auditions, and Writing for Solo Performance. Students will be expected to write and perform their solo performance for a final after-school performance for an invited audience.

### **ADVANCED THEATER**

#### **1 • 176 2 • 177 3 • 178 4 • 179**

Grade Level: 11, 12 Length: Semester  
(Prerequisite: Theater 4 and permission of instructor.)

Students who have completed Theater 1, 2, 3, and 4 may continue their study with the Advanced Theater Practice series. This series will focus the student into directing or playwriting where they will have the opportunity to work with other students to complete their personalized project, which will be approved by the instructor prior to enrollment.

### **MUSIC**

**NOTE:** Some music classes require an audition with the teacher of that class.

### **CONCERT BAND**

#### **1 • 700 2 • 701 3 • 702 4 • 703**

Grade Level: 9, 10, 11, 12 Length: Year  
(Prerequisite: written permission of the instructor.)

Students rehearse and perform selected music for three or more concerts a year and compete in regional competitions. Students' musical proficiency and understanding are developed. These courses build on the skills developed in previous Concert Band classes.

### **SYMPHONIC/MARCHING BAND**

#### **1 • 704 2 • 705 3 • 706 4 • 707**

Grade Level: 9, 10, 11, 12 Length: Year  
(Prerequisite: Written permission of the instructor, with audi-

tion and secondary school performance on a wind or percussion instrument.)

Students rehearse and perform selected music for three or more concerts a year. This ensemble competes in regional competitions. Students' musical proficiency and musical understanding are developed. During the first quarter, students are selected by audition and instrumentation needs for the marching band. Rehearsals and performances held outside of the regular school day are required. These courses build upon the skills developed in previous Symphonic/Marching band classes. *Beginning with the class of 2006, the following applies: a student who successfully completes one semester of Marching Band is granted .25 credit toward a total of four semesters necessary to complete the 1.0 PE requirement. If a student chooses to drop Marching Band after freshman year, a full year of the PE requirement must be completed. If a student drops Marching Band after the sophomore or junior year, one full semester of the PE requirement must be taken. Student must complete 2 full years of marching band to receive 1.0 PE credit.*

### **WIND ENSEMBLE/MARCHING BAND**

**1 • 708 2 • 709 3 • 710 4 • 711**

Grade Level: 9, 10, 11, 12 Length: Year  
(Prerequisite: written permission of the instructor, with audition and secondary school performance on a wind, brass, or percussion instrument, and audition required.)

Students rehearse and perform selected music in three or more concerts a year. A high degree of musical proficiency and musical understanding is developed. These courses build upon the skills developed in previous Wind Ensemble/Marching Band courses.

### **JAZZ ENSEMBLE**

**1 • 712 2 • 713 3 • 714 4 • 715**

Grade Level: 9, 10, 11, 12 Length: Year  
(Prerequisite: written permission of the instructor.)

Students must be enrolled in Concert Band or Symphonic Wind Ensemble unless the student plays piano, guitar, or bass. Students must have some high school or middle school performance experience on their instrument. Students will rehearse and perform jazz, rock, Latin, and other contemporary styles related to the Big Band idiom. Beginning skills in improvisation are taught. These courses build upon skills developed in previous Jazz Ensemble courses.

### **MIXED CHOIR**

**1 • 750 2 • 751 3 • 752 4 • 753**

Grade Level: 9, 10, 11, 12 Length: Year  
If you love to sing, but have little choral or music reading experience, this is the choir for you. Students in Begin-

ning Mixed Choir will learn to read choral music and basic music theory while singing a wide variety of music in three and four part harmony. Strong emphasis will be placed on learning to sing with good vocal technique and a beautiful quality. Fee: \$15

### **ADVANCED WOMEN'S CHOIR (Harmony)**

**1 • 724 2 • 725 3 • 726 4 • 727**

Grade Level: 9, 10, 11, 12 Length: Year  
(Prerequisite: audition and permission of instructor)

Advanced Women's Choir is open to women with choral experience, who already read music, and have good vocal technique. Emphasis will be placed on advancing sight reading skills and singing a wide variety of three and four part women's choral literature. Fee: \$15

### **ADVANCED MIXED CHOIR (Encore)**

**1 • 728 2 • 729 3 • 730**

Grade Level: 10, 11, 12 Length: Year  
(Prerequisite: audition and permission of instructor)

Advanced Mixed Choir is open to men and women with choral experience, excellent vocal technique, and strong music reading skills. Emphasis will be placed on advancing sight reading skills and mastering a wide variety of mixed choral literature. Fee: \$15

### **SELECT WOMEN'S ENSEMBLE**

**1 • 760 2 • 761**

Grade Level: 11, 12 Length: Year  
(Prerequisite: audition and permission of instructor)

The Select Women's Ensemble will give women with outstanding music reading skills and advanced vocal technique the opportunity to master a challenging variety of four part women's choral literature. Much of the literature studied in this choir will be *a capella*. Fee: \$15

### **CHAMBER ORCHESTRA**

**1 • 736 2 • 737 3 • 738 4 • 739**

Grade Level: 9, 10, 11, 12 Length: Year  
(Prerequisite: written permission of the instructor and school performance experience on a string instrument or equivalent instruction.)

The students rehearse and perform selected music in three or more orchestra concerts per year. Additional opportunities for solo and ensemble performances are provided. Literature from different periods for string orchestra, both chamber and symphonic are explored. Opportunities to play in combination with the symphonic orchestra in concert are provided. Playing skills and the student's understanding and appreciation for music are developed. These courses build upon skills developed in previous Chamber Orchestra classes.

## **SYMPHONIC ORCHESTRA**

**1 • 740 2 • 741 3 • 742 4 • 743**

Grade Level: 9, 10, 11, 12

Length: Year

(Prerequisite: written permission after audition by the instructor, school performance experience on a string instrument, or equivalent private instruction.)

Students rehearse and perform a variety of music selected from the standard repertoire in three or more concerts per year. Additional opportunities for solo and ensemble performances are provided. Literature from different periods for string orchestra and full orchestra are explored. These courses will enhance student playing skills and musical understanding. They will also provide students the opportunity to play standard works for full orchestra. Each successive course builds upon the skills developed in the previous course.

## **FOREIGN LANGUAGE**

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Juleen Harrison

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*NOTE: In order to enroll in the second semester of any foreign language class, a student must have been enrolled in, and received the minimum grade required, for the first semester of the same level.*

### **LATIN 1 • 504**

Grade Level: 9, 10, 11, 12

Length: Year

This course is the introduction to Latin. Grammar, vocabulary, prose, history, and etymology are emphasized.

### **LATIN 2 • 505**

Grade Level: 10, 11, 12

Length: Year

(Prerequisite: Latin I with a minimum grade of "C".)

This course reviews grammar and vocabulary from Latin 1 and covers all necessary grammar. This course also emphasizes new vocabulary and usage. Latin 2 begins and continues all year to translate such writers as Caesar, Cicero, Horace, Martial, Catullus, Gellius, Livy, and many others.

### **LATIN 3 • 506**

Grade Level: 10, 11, 12

Length: Year

(Prerequisite: Latin 2 with a minimum grade of "C".)

This course continues the ongoing review of grammar, vocabulary, and usage. It also translates Latin literature, including Livy, Cicero, Catullus, Caesar, and others.

### **LATIN 4 • 507**

Grade Level: 11, 12

Length: Year

(Prerequisite: Latin 3 with a minimum grade of "C".)

This course enhances grammatical structures and the translating of such writers as Cicero, Horace, Seneca, Ovid, and others. The second semester is spent reading and translating the Aeneid by Virgil.

### **FRENCH 1 • 511**

Grade Level: 9, 10, 11, 12

Length: Year

Basic skills in understanding, speaking, reading, and writing French are developed. Emphasis is placed on expressing oneself clearly in the language through oral and written drills. The cultures of French-speaking countries are examined. Consistent daily studying outside of class is required.

### **FRENCH 2 • 512**

Grade Level: 9, 10, 11, 12

Length: Year

(Prerequisite: French 1 with a minimum grade of "C" and the recommendation of the teacher.)

This course extends and improves the student's knowledge of French. Vocabulary and grammar provide a basis for the student to become proficient in speaking and writing in French. The study of cultures of French-speaking countries continues. Students are expected to communicate in French. Consistent daily studying outside of class is required.

### **FRENCH 3 • 513**

Grade Level: 10, 11, 12

Length: Year

(Prerequisite: French 2 with a minimum grade of "C" and the recommendation of the teacher.)

French 3 continues and expands the programs of French 1 and 2. It includes a complete review of grammar and an overview of literature, culture, and history. Exclusive use of French is the objective of French 3. A novel will be read in French. Consistent daily studying is required outside of class.

### **AP FRENCH 4 • 515**

Grade Level: 11, 12

Length: Year

(Prerequisite: French 3 with a minimum grade of "C" and the recommendation of the teacher.)

This course provides an opportunity for students of French to enhance and review grammatical structures, to read and write extensively, and to use their speaking skills for discussion of literature, culture, and current events. Students read selections in texts, anthologies, readers, newspapers, and magazines. Selections will be discussed in French. Students are required to take the AP exam.

**SPANISH 1 • 521**

Grade Level: 9, 10, 11, 12

Length: Year

Basic skills in understanding, speaking, reading, and writing Spanish are developed. Emphasis is placed on expressing oneself clearly in the language through oral and written drills. Consistent daily studying outside of class is required.

**SPANISH 2 • 522**

Grade Level: 9, 10, 11, 12

Length: Year

(Prerequisite: Spanish 1 with a minimum grade of "C" and the recommendation of the teacher.)

This course extends and improves the student's knowledge of Spanish. Vocabulary and grammar provide a basis for the student to become proficient in speaking and writing in Spanish. Students are expected to communicate in Spanish. Consistent daily studying outside of class is required.

**SPANISH 3 • 523**

Grade Level: 10, 11, 12

Length: Year

(Prerequisite: Spanish 2 with a minimum grade of "C" and the recommendation of the teacher.)

Spanish 3 continues the programs of Spanish 1 and 2. It includes a complete review of grammar and an introduction to literature, culture, and history. Exclusive use of Spanish is the primary objective of Spanish 3. Consistent daily studying is required outside of class.

**AP SPANISH 4 • 525**

Grade Level: 11, 12

Length: Year

(Prerequisite: Spanish 3 with a minimum grade of "C" and the recommendation of the teacher.)

This course provides an opportunity for students of Spanish to prepare for the Spanish AP *language* exam by enhancing and reviewing grammatical structures, writing and reading extensively, and using their speaking skills for discussion of literature, culture, and current events. Students read selections in texts, anthologies, readers, newspapers, and current magazines. Selections will be discussed in Spanish. Consistent daily studying outside of class is required. Students are required to take the AP exam.

**AP SPANISH 5 • 527**

Grade Level: 12

Length: Year

(Prerequisite: Spanish 4 with a minimum grade of "C" and the recommendation of the teacher.)

This course provides an opportunity for students of Spanish to prepare for the Spanish AP *literature* exam by enhancing and reviewing grammatical structures, writing and reading extensively, and using their speaking skills for discussion of literature, culture, and current events.

Students read selections in texts, anthologies, readers, newspapers, and current magazines. Selections will be discussed in Spanish. Consistent daily studying outside of class is required. Students are required to take the AP exam.

**GERMAN 1 • 531**

Grade Level: 9, 10, 11, 12

Length: Year

This course provides the student with a broad introduction to the German language and culture. Emphasis is placed on the acquisition of the four basic skills: listening, speaking, reading, and writing. Students acquire a base vocabulary and learn simple grammatical structures (including the past tense) needed to communicate in real-life situations. Workbooks and CDs provide additional practice. Videotapes and songs introduce authentic cultural information. Consistent daily studying outside of class is required.

**GERMAN 2 • 532**

Grade Level: 9, 10, 11, 12

Length: Year

(Prerequisite: German 1 with a minimum grade of "C" and the recommendation of the teacher.)

This course follows the successful completion of German 1. The emphasis on basic language skills continues. Students will participate in a complete review of German 1 topics. They will broaden their knowledge of vocabulary on these topics and will acquire a more advanced knowledge of German structures for speaking and writing. By the end of German 2 the most important structures of the German grammar will have been covered. Students' proficiency is enhanced through active use of the language via role-playing, projects, and presentations. A reader is also used to learn how to read longer texts without using a dictionary. Students are expected to communicate in German. Consistent daily studying outside of class is required.

**GERMAN 3 • 533**

Grade Level: 10, 11, 12

Length: Year

(Prerequisite: German 2 with a minimum grade of "C" and the recommendation of the teacher.)

German 3 presents a thematic approach to the study of language. Each unit will revolve around a unit of grammar and a topic related to German culture. Students will learn new and advanced vocabulary through the reading of fairy tales and legends, texts on history and culture, and the watching of films related to history and fairy tales. We will listen to traditional and modern songs. A novel will also be read. Almost exclusive use of German is the primary objective of German 3. This course requires the students' full participation and commitment and daily studying is required outside of class.

## **AP GERMAN 4 • 535**

Grade Level: 11, 12

Length: Year

(Prerequisite: German 3 with a minimum grade of “C” and the recommendation of the teacher.)

This college-level course prepares students to take the Advanced Placement language examination. Students use language for active communication and expand their ability to express ideas with fluency and accuracy in both spoken and written language. In addition, they develop the ability to understand spoken language in various contexts and use extensive and sophisticated vocabulary for reading current and traditional texts. This course requires a lot of self-discipline and commitment. Students need to study vocabulary and grammar at home so that the course can stay focused on practicing speaking, reading, listening, and writing in an almost immersion-like setting in the classroom. Students will write journals and essays, listen to songs and other authentic sources, read literary texts and newspaper articles, watch films, and try to maintain discussion about a great variety of topics. Students who take AP German 4 are required to take the AP exam unless they plan to continue on to take AP German 5. If students do not take the AP exam and do not go on to take AP German 5, their grade for AP German 4 will not be weighted.

## **AP GERMAN 5 • 537**

Grade Level: 12

Length: Year

(Prerequisite: German 4 with a minimum grade of “C” and recommendation of teacher.)

This course has exactly the same aims and objectives as AP German 4: To prepare students for the AP exam and immerse the students in German language and culture. The College Board offers only an AP language exam; therefore, German 5 will prepare for the exam as did German 4. A new set of materials and different syllabus will be used, providing a different learning experience. At the end of AP German 5, student should be fully prepared to take the AP exam and are required to do so. Most students will benefit from taking German 4 and 5 before attempting the AP exam.

# **MATHEMATICS**

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*Students should select one of the following math paths. Movement between options is possible on an individual basis and with instructor approval.*

## **SEQUENTIAL MATH PATH**

This path emphasizes the traditional, sequential development of math skills through Algebra 1, Geometry, Algebra 2, etc., as separate year-long courses. It explores the concepts and theories of each course, emphasizing one area at a time. Students solve problems to apply the math skills which are developed incrementally. Students often work independently and are individually accountable.

## **FOCUS ON ALGEBRA 1 • 302**

Grade Level: 9,10

Length: Year

(Prerequisite: Placement by 8th or 9th grade math teacher and or counselor)

This class is designed to prepare students for success in Algebra I and Core Plus Math 1. Students will be placed in the course based on performance in previous math classes and Standards Based Assessment scores. Topics covered include development of the real number system, properties and operations with real numbers, extensive use of signed numbers, graphing, decimals, fractions, percents, solving linear equations, polynomials, factoring, linear inequalities, and exponents. This course does not count as a college entrance credit and does not meet NCAA eligibility requirements, but does count as a high school math credit.

## **ALGEBRA I • 304**

Grade Level: 9, 10, 11, 12

Length: Year

Topics include: patterns, the real number system and its properties, solving equations, percent, introduction to statistics, inequalities, linear functions, absolute value functions, solving systems of equations, exponents, operations with polynomials, quadratics, rational functions, and radicals.

## **CONSUMER MATHEMATICS: MATHEMATICS OF MONEY • 305**

Grade Level: 11, 12

Length: Year

This course extends math skills to cover additional math concepts and uses these skills in a variety of consumer applications. In addition to reinforcing general math topics such as arithmetic, using rational numbers, measurement, and basic statistics, this course applies these skills to consumer problems and situations. Applications may include budgeting, taxation, credit, banking services, insurance, buying and selling products and services, home and/or car ownership and rental, managing per-

sonal income, investments, and business applications. This course does not count as a college entrance credit and does not meet NCAA eligibility requirements, but it does count as a math credit for graduation.

### **GEOMETRY • 306**

Grade Level: 9, 10, 11, 12 Length: Year  
(Prerequisite: a minimum grade of “D” in both semesters of Algebra 1 or CORE Plus 2 and placement by current math teacher.)

This course is a study of Euclidean geometry and includes the study of: congruency, similarity, deductive reasoning used in proofs, area, volume, right triangle trigonometry, and practical applications. Algebra is used to aid in the understanding of geometric concepts and applications as well as to maintain algebraic skills.

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- **For the following courses, it is highly recommended that the student have access to a TI-84 or TI-84 Plus graphing calculator.**

### **ALGEBRA 2 • 308**

Grade Level: 9, 10, 11, 12 Length: Year  
(Prerequisite: a minimum grade of “D” in Algebra 1 and Geometry, and placement by current math teacher.)

This course is an extension of Algebra 1 in which all major concepts are reconsidered and then expanded to include more difficult applications. Additional topics considered include: functions and relations, irrational numbers, conic sections, exponential functions, matrices, determinants, complex numbers, logs, and (if time permits) sequences and series.

### **ALGEBRA 2/TRIGONOMETRY • 310**

Grade Level: 9, 10, 11, 12 Length: Year  
(Prerequisite: grade of “A” in Algebra 1, grade of “A” or “B” in Geometry, a score of 23/30 on the pre-test, and placement by the current math teacher.)

This course covers material from both Algebra 2 (full year content) and Trigonometry (1 semester content). It is an extension of Algebra 1 in which all major concepts are reconsidered and then expanded to include more difficult applications. Additional topics considered include: functions and relations, irrational numbers, conic sections, exponential functions, matrices, determinants, complex numbers, and logs. Trigonometry topics include definitions of circular functions, verifying and deriving identities, graphs, uniform circular motions, inverse trigonometric functions, trigonometric equations, and triangle trigonometry. The student must be highly motivated in mathematics. Substantial homework is required. Students must maintain a minimum “B” average or be moved to an Algebra 2 class at the end of 4

1/2 weeks, 9 weeks, or the semester. Once a semester grade is earned and submitted, transcripts will not be changed.

### **TRIGONOMETRY • 312**

Grade Level: 10, 11, 12 Length: Semester  
(Prerequisite: a minimum grade of “C” in Algebra 2, Geometry, Algebra 1, and placement by the current math teacher.)

Topics include: definitions of circular functions, verifying and deriving identities, graphs, uniform circular motions, inverse trigonometric functions, trigonometric equations, and triangle trigonometry.

### **PRE-CALCULUS 1 and 2 • 313**

Grade Level: 10, 11, 12 Length: Year  
(Prerequisite: Trigonometry or Algebra 2/Trigonometry with a minimum grade of “C” and placement by the current math teacher.)

Course content is the same as Pre-Calculus 1(314) and Pre-Calculus 2 (315).

### **PRE-CALCULUS 1 • 314**

Grade Level: 10, 11, 12 Length: Semester  
(Prerequisite: Trigonometry, Algebra 2/Trigonometry, or CORE Plus Math 3 with a minimum grade of “C” and placement by current math teacher.)

This course covers: exponents and logarithms, polar coordinates and vectors, polar equations of conics, plane curves and parametric equations, sequences, induction, counting, and probability.

### **PRE-CALCULUS 2 • 315**

Grade Level: 10, 11, 12 Length: Semester  
(Prerequisite: Trigonometry, Algebra 2/Trigonometry, or CORE Plus Math 3 with a minimum grade of “C” and placement by current math teacher.)

This course covers: graphs and equations, functions and their graphs, polynomial and rational functions, analytic geometry, conics, rotation of axes, polar equations of conics, and a preview of calculus.

### **AP STATISTICS • 316**

Grades: 11, 12 Length: Year  
(Prerequisite: a minimum grade of “B” in Core Plus Math 3, Algebra 2 and placement by student’s current math teacher.)

This course is a hands-on, activity-based approach to learning the fundamental concepts of statistics and their application without requiring any knowledge of calculus. Its emphasis is on discussion, experimentation, and written explanation of problem solutions and their meanings and implications. The course does not emphasize algebraic symbol manipulation. It will prepare

students for all college courses that require knowledge of statistics, especially critical inferential reasoning. **It is highly recommended that the student have access to a TI-83 or TI-84 Plus graphing calculator.**

### **AP CALCULUS AB • 317**

Grades: 11, 12 Length: Year  
(Prerequisite: a grade of “A” or “B” in Algebra 2, Trigonometry, Pre-Calculus [full year] and placement by the current math teacher.)

This fast course is an in-depth study of the methods of differentiation and integration and the use of these techniques on applied problems. Other topics include a review of functions, analytic geometry, and limits. Substantial homework is required. Students are required to take the AP exam.

### **AP CALCULUS C • 318**

Grades: 11, 12 Length: Semester  
(Prerequisite: Completion of, or concurrent enrollment in, AP Calculus AB.)

This class is only offered during the second semester. It is designed for the motivated student who wishes to take the AP Calculus BC test in May. It covers the additional material on the test that is not in the AP Calculus AB content. Students taking the AP Calculus BC exam will receive a score for both the AB part and the BC part of the exam. Topics in this class include (but are not limited to): parametric, polar, and vector functions and their derivatives; analysis of planar curves in parametric, polar, and vector forms including velocity and acceleration; numerical solution of differential equations using Euler’s method; L’Hospital’s Rule, applications of integrals, logistics, sequences, improper integrals, and the Taylor and Maclaurin series. Students are required to take the AP exam.

## **CORE PLUS MATH PATH**

This path emphasizes problem solving and mathematical thinking. The approach uses the skills and knowledge from algebra, geometry, statistics, and probability to solve complex mathematical problems. CORE Plus Math is a constructionist approach in which students discover the need for the mathematics used to solve a problem. Ideas are developed through questioning and are formalized with a teacher led concept summary at the end of each investigation. This sequence employs small group teamwork with strict individual student accountability.

**To be successful in CORE Plus Math**, students must be self-disciplined, able to stay on task in small groups, and have good reading comprehension and writing

skills. Students must be proficient at following written directions. CORE Plus Math is by no means an easier path and can be more difficult for some students due to the reading and writing requirements. A TI-84 Plus graphing calculator is used extensively and is highly recommended.

Transfer to traditional mathematics path must be evaluated on an individual basis.

Completion of CORE Plus Math 3 is designed to prepare students for Pre-Calculus or AP Statistics. Completion of CORE Plus Math 4 is designed to prepare students for AP Calculus. Those who have earned an A or B+ and have a teacher recommendation may sign up for AP Calculus. **Completion of CORE Plus Math 1-4 is encouraged for maximum success in college.**

CORE Plus topics are taught in a spiral versus linear approach. In each successive year, topics are explored more deeply, and students are expected to reason at higher and higher levels.

### **CORE PLUS MATH 1 • 320**

Grade Level: 9, 10, 11, 12 Length: Year  
(Prerequisite: a minimum grade of “D” in the previous math class and placement by current math teacher.)

This course includes: the study of patterns in data, statistics, patterns of change, linear models, graph models, patterns in space and visualization, geometry, vertex-edge graphs, Euler circuits, critical paths, exponential models, simulation models, and probability.

### **CORE PLUS MATH 2 • 322**

Grade Level: 9, 10, 11, 12 Length: Year  
(Prerequisite: Passing grade in CORE Plus Math 1 or Geometry with placement by current math teacher.)

This course includes: a study of matrix models including building and using matrix models, multiplying matrices, using powers of matrices, and using matrices to solve systems of linear equations; a geometry unit that includes coordinate geometry with coordinate proofs, rigid and size transformations, and combining matrices and transformations to produce animations; a statistics unit that investigates association, correlation, and regression lines; a unit on power models that relates area and volume to  $y=ax^2$  and  $y=ax^3$ , inverse variation, quadratic models, radicals and fractional power models; a network optimization unit involving optimizing computer and road networks and finding shortest paths and circuits. In a geometric form and function unit students investigate quadrilaterals using linkages, study right triangle trigonometry, use radian measure,

model circular motion, and graph periodic functions. In the final unit we study probability looking at wait-time distribution, the multiplication rule, and expected value of a probability distribution.

### **CORE PLUS MATH 3 • 324**

Grade Level: 10, 11, 12 Length: Year  
(Prerequisite: CORE Plus Math 2 with a passing grade.)

This course includes: the study of multiple-variable models, statistics, trigonometry, algebraic operations on all types of equations, shapes and geometric reasoning, normal distribution, process control test analysis, families of functions and transformations, recursion, arithmetic and geometric sequences and series, and iteration. Completion of CORE Plus Math 3 is designed to prepare students for Pre-Calculus or AP Statistics.

### **CORE PLUS MATH 4 • 326**

Grade Level: 11, 12 Length: Year  
(Prerequisite: CORE Plus Math 3 with a minimum grade of "C".)

CORE Plus Math 4 consists of units for all college-bound students. Manipulation of equations is emphasized throughout the year in studying these topics: basic derivative and integral functions, motion using vectors and parametric equations, logarithmic functions along with data models, counting principles and the Binomial Theorem, probability, binomial and normal distributions, polynomial and rational functions, trigonometric identities and equations, polar coordinates, roots of complex numbers, 3-D contour graphs, and conics. Alternate topics may include informatics (codes) and statistical inference. Completion of CORE Plus Math 4 is designed to prepare students for AP Calculus per school year.

## **NJROTC**

Commander: Wes Shumaker

Phone: 663-2787

e-mail: w.shumaker@laschools.net

Students are required to make a full year commitment. Naval Science courses are taught sequentially. Cadets may enroll in only one Naval Science class per school year.

• Note 1: Sports Physical -- A sports physical should be completed to participate fully in all activities.

*Important Note: The student should be physically qualified to fully participate in a program that involves military drill and field trips to various locations around the city and the state. Other extracurricular and co-curricular activities are optional. Uniforms and shoes are provided at no cost to the student.*

• Note 2: Academic Credit -- Each student who completes Naval Science 1, 2 and 3 will satisfy the 1.0 Communication Skills requirement.

• Note 3: Teams -- Teams are an integral part of the NJROTC program in building leadership and promoting cooperation. Competitive teams participate in color guard, drill, academics, fitness, and marksmanship. Other activities include rocketry, small boat sailing, and orienteering. Cadets may attend several leadership camps during the summer as well as marksmanship training and competitions. The sailing program continues to grow with at least two opportunities per semester for sailing. Students may be in NS 1, 2, 3, or 4 during any class period. Varsity letters are awarded for color guard/drill and marksmanship.

\*\* The Senior Naval Science instructor can make three nominations to the U.S. Naval Academy each year from the ranks of NJROTC cadets. This nomination allows the nominee to compete for an appointment to the U.S. Naval Academy. Other candidates must obtain a nomination from their senator or representative.

### **NAVAL SCIENCE 1 • 970**

Grade Level: 9, 10, 11, 12 Length: Year  
Naval Science 1 introduces the student to the meaning of citizenship, the elements of leadership, and the value of scholarship in attaining life goals. The student gains a sound appreciation for the heritage and traditions of America, with recognition that the historically significant role of sea power will be important in America's future. The course content includes an introduction to the NJROTC program, naval mission and organization, maritime history, power and challenges, American democracy, and health education.

### **NAVAL SCIENCE 2 • 971**

Grade Level: 10, 11, 12 Length: Year  
(Prerequisite: Naval Science 1.)

Naval Science 2 builds on the general introduction provided in Naval Science 1 to further develop the traits of citizenship and leadership in cadets. The student acquires knowledge of technical areas of naval science and develops a deeper awareness of the vital importance of the world oceans to the continued well being of the United States. The course content includes ongoing instruction in leadership theory, naval orientation and career planning, citizenship in the U.S. and other countries, naval history, naval ships and weapons, navigation fundamentals and rules of the road, small boat seamanship, meteorology and weather, and survival training and orienteering.

### **NAVAL SCIENCE 3 • 972**

Grade Level: 11, 12

Length: Year

(Prerequisite: Naval Science 2.)

Naval Science 3 focuses on the operative principles of military leadership, the concept and significance of teamwork, the intrinsic value of good order and discipline in the accomplishment of objectives, the fundamentals of American democracy, and understanding of naval academic subjects. The course content includes ongoing instruction in leadership and discipline, military justice, astronomy, international law and the sea, national strategy, sea power and naval operations, naval history, naval intelligence and national security, maneuvering board, challenges of future navy research, and electricity and naval electronics.

### **NAVAL SCIENCE 4 • 973**

Grade Level: 12

Length: Year

(Prerequisite: Naval Science 3.)

Naval Science 4 focuses solely on practical leadership. The student gains understanding in leadership and improves his/her leadership skills by taking on positions of leadership (under supervision), and analyzes the reasons for his/her varying degrees of success throughout the year. The course content includes instruction in theoretical and applied aspects of leadership and training and evaluation of performance. The student acquires the techniques used to create motivation, to develop goals and activities for a work group, and to acquire the proper ways to set a leadership example.

## **SCIENCE**

Department Chair: Kathy Boerigter &  
Diane Medford

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### **PHYSICS • 400**

Grade Level: 9, 10

Length: Year

This course introduces students to the principles of physics that underlie many aspects of science. Numerous lab activities will allow students to investigate concepts that relate directly to their own experiences. Algebra will be used throughout the course to extend students' abilities and to help develop critical thinking skills. Topics will include motion, forces, energy, wave properties, electricity, and magnetism.

### **ADVANCED PHYSICS • 406**

Grade Level: 9, 10, 11, 12

Length: Year

(Prerequisite: Algebra 2/CORE Plus Math 3 or concurrent enrollment, and recommendation of current science teacher.)

This course is designed to prepare students for college level work in science or engineering. Numerous lab activities will allow students to analyze topics in detail. Critical thinking, problem solving, and practical applications of mathematics will be further developed. Topics will include mechanics, waves, optics, electricity and magnetism, and modern physics.

### **AP PHYSICS B • 410**

Grade Level: 11, 12

Length: Year

(Prerequisite: Pre-calculus, CORE Plus Math 4, or concurrent enrollment, a minimum grade of "B" in previous science class, and the recommendation of the current science teacher.)

This college-level introductory course prepares the student to take the AP Physics B test and achieve success in subsequent science courses. The class is math-intensive but not calculus-based. The curriculum includes mechanics, kinetic theory and thermodynamics, electricity and magnetism, waves, optics, and modern physics. Emphasis is placed on lab activities to introduce and reinforce physical concepts. AP Physics B and AP Physics C may be taught in the same class. Students need to be highly motivated and able to work well independently and in small groups. Students are expected to handle a significant time involvement, including writing of lab reports and solving advanced problems for this course. Students are required to take the AP exam.

### **AP PHYSICS C • 411**

Grade Level: 11, 12

Length: Year

(Prerequisite: completion of any other physics course with a minimum grade of "B", Calculus or concurrent enrollment in Calculus.)

The AP-C Physics course is a calculus based physics course covering classical mechanics and electricity and magnetism. The sequence is intensive and analytical. Strong emphasis is placed on solving a variety of challenging problems, some involving calculus. There will be laboratory activities. AP Physics B and AP Physics C may be taught in the same class. Students are expected to be motivated and handle independent and small group work. There will be a considerable amount of work outside of the classroom. The College Board gives two AP-C exams, one in mechanics and one in electricity and magnetism. This course is equivalent to part of the college sequence that serves as the foundation in physics for students majoring in the physical sciences or engineering. Students are required to take both of these AP exams.

**PHYSICAL GEOLOGY • 415**

Grade Level: 10, 11, 12 Length: Semester  
(Prerequisite: Physics and Chemistry or concurrent enrollment in Chemistry.)

This is a college-level introductory course that is primarily concerned with teaching students how to interpret those clues to Earth's past that can be found all around us. It focuses on the composition and dynamics of the Earth's surface. Local geology is stressed. This course includes one day-long field trip as well as a number of short excursions off campus during class time for field and mapping exercises. An interest in geology is required to make this an enjoyable class.

**HISTORICAL GEOLOGY • 416**

Grade Level: 10, 11, 12 Length: Semester  
(Prerequisite: Physics and Chemistry or concurrent enrollment in Chemistry; Physical Geology recommended.)

This is a college-level introductory course that sheds light on the Earth's prehistoric past. It emphasizes the interpretation of the fossil record as well as that of other physical structures on the Earth's surface. The methods by which such interpretations are made is stressed. Special attention is given to the geological history of the local area. This course includes one day-long field trip as well as a number of short excursions off campus during class time for field and mapping exercises. An interest in geology is required to make this an enjoyable class.

**CHEMISTRY • 420**

Grade Level: 10, 11, 12 Length: Year  
(Prerequisite: Physics course and Algebra 1/Core Plus Math 1 or concurrent enrollment.)

Problem solving and critical thinking skills are emphasized as principles of chemistry are developed and used to enable students to analyze current issues in science and technology. Extensive laboratory experiences are used to reinforce chemical concepts.

**ADVANCED CHEMISTRY • 423**

Grade Level: 10, 11, 12 Length: Year  
(Prerequisite: Geometry/CORE Plus Math 2 or concurrent enrollment, a minimum grade of "B" in Physics, and the recommendation of your current science teacher.)

This is a rigorous course for those wishing to pursue careers in science or engineering. Emphasis is placed on critical thinking skills, problem solving, and practical applications of mathematics. Advanced topics including atomic structure and the nature of inorganic chemical reactions are studied. Extensive laboratory experiences are used to reinforce chemical concepts. A substantial amount of homework is required.

**AP CHEMISTRY • 426**

Grade Level: 11, 12 Length: Year  
(Prerequisite: Algebra 2, a minimum grade of "B" in Adv Chem or "A" in Chem, and the recommendation of the science department. \*A summer reading assignment and problem set is required.)

This is a college-level introductory course. Course content follows the curriculum recommended by the College Board. Topics include the atomic theory and the structure of atoms, chemical bonding, stoichiometry and chemical equations, chemical equilibrium, acids, bases, salts, and chemical kinetics and thermodynamics. Extensive use of mathematics in problem solving is required. Additional time for laboratory activities will be scheduled weekly. Students are required to take the AP exam.

**BIOLOGY • 430**

Grade Level: 11, 12 Length: Year  
(Prerequisite: Chemistry or concurrent enrollment.)

Course work emphasizes evolution, diversity, genetics, ecological relationships, and uses of biological technologies in society. Activities are designed to acquaint students with processes of science, such as experimental design and data interpretations. Extensive inquiry-based laboratory work is required. Students will keep a logbook/journal on all class activities. Students will research various topics and present their findings in oral and written form during the school year.

**ADVANCED BIOLOGY • 431**

Grade Level: 11, 12 Length: Year  
(Prerequisite: a minimum grade of "B" in Adv Chem or Chem and the recommendation of your current science teacher.)

This is a challenging course for serious science students, especially those who intend to pursue a career in biology, medicine, or another scientific field. This course is recommended for juniors interested in taking AP Biology in their senior year. It covers the same general topics as Biology, but in far greater detail. This course concentrates on critical thinking skills and problem solving and includes laboratory exercises. A substantial amount of homework is required.

**AP BIOLOGY • 433**

Grade Level: 11, 12 Length: Year  
(Prerequisite: a minimum grade of "B" in Adv Chem or "A" in Chem and the recommendation of your current science teacher. Although AP Biology may be taken without having taken a previous Biology course, a previous Biology course is recommended. This course fulfills the Science credit needed for graduation.)

This is a college-level introductory course. Course

content follows the curriculum recommended by the College Board. Topics include molecules and cells, heredity and evolution, and organisms and populations. Extensive homework, note-taking from text, laboratory work, dissection, and outside readings are required. A summer reading assignment is also required. Students are required to take the AP exam.

### **FORENSIC SCIENCE 1 • 440**

Grade Level: 12 Length: Semester  
Interested in learning how science is used to solve crimes? In this semester course, the student will learn how to collect and analyze evidence from crimes involving trace evidence, ballistics, poisons/drugs, arson, and document analysis. Student teams will apply their knowledge to “solve” a mock crime. Fee: \$20

### **FORENSIC SCIENCE 2 • 441**

Grade Level: 12 Length: Semester  
In this semester course, the students will learn how to collect and analyze evidence from crimes involving hair, blood, DNA, fingerprints, and anthropology. Student teams will apply their knowledge to “solve” a mock crime. Fee: \$20

## **SOCIAL STUDIES**

Department Chair: Don Reid  
Phone: 663-2563  
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### **WORLD HISTORY AND GEOGRAPHY: Renaissance to the Present • 200**

Grade Level: 9 Length: Year  
This course surveys modern World History from the Renaissance to the 21st Century through a global approach that examines Europe, Asia, Africa, and the Americas. This course is required for graduation.

### **U.S. HISTORY • 203**

Grade Level: 10, 11 Length: Year  
(Prerequisite: World History and Geography)  
This course covers U.S. history since 1865, surveying the political, economic, social, and cultural development of the American people. AP US History may be substituted for this course. This course is required for graduation.

### **AP U.S. HISTORY • 207**

Grade Level: 10, 11, 12 Length: Year  
(Prerequisite: Recommendation of most recent social studies teacher)

This college-level course includes a broad survey of significant events, trends, personalities, and concepts from the colonial period to the present. This course is intended for the serious student of American history who has solid academic skills. Extensive homework is required. This course may be taken as an alternative to U.S. History. Students are required to take the AP exam.

### **ECONOMICS • 204**

Grade Level: 11, 12 Length: Semester  
This course introduces students to the U.S. free-market system, covering such topics as the theory of supply and demand, business organization and investment, the role of government, the process of economic growth, problems of maintaining a stable economy, and the role of the U.S. in a world economy. This course is required for graduation.

### **GOVERNMENT • 205**

Grade Level: 11, 12 Length: Semester  
This course is designed to present a critical perspective of the role government plays in our society. It focuses on the principles of government of the United States, the political institutions comprising the government, and analysis of case studies. The course also analyzes various types of government, local and national politics, and the formation of the U.S. government. This course is intended to help students understand the world around them and their role as active citizens. This course is required for graduation.

### **NEW MEXICO HISTORY SINCE 1900 • 208**

Grade Level: 9,10 Length: Semester  
This is a newly **required** course mandated by the New Mexico Legislature beginning with the class of 2008. It is a one semester course designed to help students become more knowledgeable and more aware of the historic, political, geographic, economic, and social forces that have shaped our state in the last century. The course will integrate history, current issues, literature and the arts, analysis of primary sources, and discussion of the accomplishments of, and the challenges faced by New Mexicans.

### **AP EUROPEAN HISTORY • 209**

Grade Level: 11, 12 Length: Year  
This college-level course acquaints the serious student with the major trends and events of European history since 1400. Emphasis is placed on Europe as a center for intellectual, cultural, political, social, and economic

developments. Class work centers upon interpretation and analysis of European events and their relationship to modern developments. Extensive homework is required. Students are required to take the AP exam.

### **PSYCHOLOGY • 213**

Grade Level: 11, 12 Length: Semester  
This course examines the behavior of human beings. Through discussion, role playing, hands-on experiences, video, and an individual semester project, students study psychology's major contributors, examine the brain, investigate human development and cognition, and analyze theories of personality and abnormal psychology. This unique course offers a challenging and relevant curriculum for all students.

### **AP PSYCHOLOGY • 214**

Grade Level: 11, 12 Length: Year  
(Prerequisite: Recommendation of most recent history teacher)

This challenging course introduces students to the scientific study of the behavior and mental processes of human beings and animals. Students are exposed to the facts and principles associated with the thirteen major sub-fields of an introductory college psychology course. This course is intended for the committed student who has a strong interest in psychology and who is willing to work hard to achieve the instructor's high standards. Extensive homework is required. Students are required to take the AP exam.

### **HUMAN GEOGRAPHY • 220**

Grade Level: 9, 10 Length: Semester  
Students are introduced to a geographic interpretation of cultural diversity. Students gain an understanding of the relationship between human population and the environment. Units include: language, religion, politics, industrial development, population and migration issues, and resource scarcity problems. Ethnic identities are explored, and folk and popular culture examined, in the context of globalization.

### **CONSTITUTIONAL LAW • 222**

Grade Level: 11, 12 Length: Semester  
In this course students examine the rights guaranteed by the U.S. Constitution, including the rights of high school students. Students study U.S. Supreme Court cases and engage in simulated court proceedings to evaluate those decisions. Because the Constitution is an evolving document, the course's overall goal is for the students to learn how to determine for themselves what the Constitution protects.

### **ETHNIC CONFLICT • 224**

Grade Level: 11, 12 Length: Semester  
In this course, students study contemporary global issues, examining areas of the world that have experienced ethnic conflict. Topics may include the Arab/Israeli conflict, the Armenian massacre, the Japanese in Nan-king, apartheid in South Africa, conflict in the Balkans, clashes in Northern Ireland, the plight of the Kurds, the internment of the Japanese-Americans during WWII, and hate crimes in the United States. The overall goal is to examine what circumstances justify or require international intervention in a conflict.

## **SPECIAL PROGRAMS**

Sandra Warnock

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### **STUDENT ASSISTANT 1 • 976**

Grade Level: 9, 10, 11, 12 Length: Year  
(Prerequisite: permission of instructor and administration with approved application from guidance.)

The student assistant program is designed to provide students with a job-oriented learning experience which will better prepare individuals for life and work skills upon graduation. These on-the-job experiences can possibly include clerical tasks, lab set up, inventory, and organizational tasks. Students may earn only 1 elective credit of Student Assistant towards graduation.

### **STUDENT ASSISTANT 2 • 977**

Grade Level: 10, 11, 12 Length: Year  
(Prerequisite: permission of instructor and administration with approved application from guidance.)

This course builds upon the skills developed in Student Assistant 1. This course will not count toward credit for graduation.

### **STUDENT INTERN 1 • 978**

Grade Level: 11, 12 Length: Year  
(Prerequisite: permission of the instructor with approved application from guidance.)

The student intern program is a work-experience opportunity whereby students can "earn while learning." Jobs with the school are contracted for one semester but can be extended to one full year. Interns earn an hourly wage based on the number of hours employed. Applications are available in the Career Resource Center. Internships cannot be guaranteed until the beginning of the fall semester.

## **STUDENT INTERN 2 • 979**

Grade Level: 11, 12

Length: Year

(Prerequisite: permission of instructor and administration with approved application from guidance.)

This course builds on the skills developed in Student Intern 1. This course will not count toward credit for graduation.

## **WORK EXPERIENCE (M.A.P.S.)**

**1 • 980; 2 • 981**

Grade Level: 10, 11, 12

Length: Semester

(Prerequisite: M.A.P.S. 1; completed application and administrative approval. M.A.P.S. 2; successful completion of MAPS 1.) M.A.P.S. (Mentorship, Apprenticeship, Partnership, Service) is a community-based program which provides students the opportunity to explore possible areas of career interest with hands-on experience in businesses, community agencies, and elementary schools. Students are responsible for locating a mentor and are provided assistance from the administration when necessary. M.A.P.S. programming at LANL is not an option. Students must have their own reliable transportation.

## **WORK EXPERIENCE (M.A.P.S.)**

**3 • 982; 4 • 983**

Grade Level: 11, 12

Length: Semester

(Prerequisite: successful completion of M.A.P.S. 2.)

This course builds upon the skills developed in previous Work Experience (M.A.P.S.). These courses will not count toward credit for graduation.

## **DRIVERS' EDUCATION**

• 992 (1st semester) • 993 (2nd semester)

Grade Level: 15+ years of age

Length: Semester

This course, offered during the school day, presents material and activities necessary for the student to pass the written portion of the Department of Transportation's requirement for a driver's permit. Students must arrange to complete the driving portion of the requirement on their own.

## **STUDENT WELLNESS**

Department Chair: Terry Hiller

Phone: 663-2629

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*For the class of 2012 and beyond, the Physical Education graduation requirement must be fulfilled by the completion of both semesters of Foundation in PE. PE uniforms are required for these courses.*

*Students in the classes of 2009, 2010, and 2011 may fulfill the Physical Education graduation requirement with any combination of Physical Education 1 or 2, Physical Conditioning 1 or 2, and Ballroom, Latin and Swing Dance 1. Health is also required for graduation.*

## **FOUNDATION IN PHYSICAL EDUCATION**

• 916 (Semester) • 917 (Semester)

Grade Level: 9

### **Individual and Team Sports Activities • 916**

This course introduces the student to individual/team sports activities and to good health practices. Exercises and aerobic running are a daily part of this class. Testing of fitness levels with state-of-the-art technology and development of a fitness portfolio are included. This course is structured to provide students with knowledge and skill of physical activities that best serve their needs for total fitness and lifelong wellness. This semester may include the following activities: soccer, softball, flag football, ultimate frisbee, basketball, badminton, table tennis, pickleball, lacrosse, flag rugby, swimming, volleyball, ice skating, floor hockey, Frisbee golf, trail hiking, physical fitness testing, and multilevel activities (indoor games).

### **Dance and Physical Conditioning • 917**

This course provides an introduction to ballroom dance and gives opportunities for mastery and refinement of skills in physical activities. Students will learn basic footwork, rhythm, technique, partnering skills, and styling in foxtrot, jitterbug, cha-cha, and merengue. The conditioning portion of the class introduces students in the use of cardio machines, strength resistance machines, and state-of-the-art fitness technology. Heart Rate Monitors will be used daily. The students will alternate cardio and strength workouts. Fitness portfolios and personal fitness plans will be developed.

## **PHYSICAL EDUCATION**

**1 • 900 2 • 901**

Length: Semester

Grade Level: 10, 11, 12

These courses further explore individual and team sports activities with good health practices. Exercises, flexibility, and aerobic conditioning are a part of this class. These courses are structured to provide 10th, 11th, and 12th grade students with knowledge and skills of physical activities offered in the Foundations classes. The fall semester may cover the following activities: soccer, softball, flag football, ultimate frisbee, swimming, volleyball, ice skating, floor hockey, basketball, and multilevel activities (indoor games). The spring semester may cover the following activities: ice skating, floor hockey, basketball, bad-

minton, table tennis, pickleball, lacrosse, swimming, flag rugby, and multilevel activities (indoor games).

## **PHYSICAL CONDITIONING**

**1 • 940 2 • 941 3 • 942 4 • 943**

Grade Level: 10, 11, 12 Length: Semester

This physical conditioning program emphasizes cardiovascular fitness, body weight control, flexibility, strength training, and body development. Heart Rate Monitors will be used daily. Strength training with resistance machines along with cardiovascular training on treadmills, elliptical machines, stationary bikes, and recumbent bikes is emphasized. Testing of fitness levels with state of the art technology, individual fitness portfolios and personal fitness plans will be developed. The students will alternate their cardio and strength workouts.

## **BALLROOM, LATIN, & SWING DANCE 1 • 904**

Grade Level: 10, 11, 12 Length: Semester

This course provides an introduction to classification and history of ballroom dancing, dance etiquette, and evaluation of dance performance. Included are American style waltz, tango, cha-cha, and swing. Basic footwork, technique and styling, partnering skills, and learning how to lead and follow in dance are covered. Activities include dance exercises, club dances, social dancing, choreographed routines and a final performance for the community.

## **WEIGHT TRAINING**

**1 • 908 2 • 909 3 • 910 4 • 911**

Grade Level: 10, 11, 12 Length: Semester

(Prerequisite: Completion of Physical Education graduation requirement)

This course is designed to use free weights, resistance machines and cardio machines to develop individual fitness programs for each student. Fitness and strength levels will be monitored daily. Flexibility, cardio, strength training and lifelong fitness will be emphasized.

## **LIFETIME SPORTS**

**1 • 912 2 • 913 3 • 914**

Grade Level: 10, 11, 12 Length: Semester

(Prerequisite: Completion of Physical Education graduation requirement)

This course is designed for students of all levels of skills. The course is structured to develop and improve fundamental skills and knowledge as well as to establish carryover interest in recreational activities. The following activities may be offered to all students: Archery, badminton, table tennis, bowling, basketball, recreational games, softball, tennis, volleyball, ice skating, golf,

pickleball, wall climbing, racquetball, swimming, weight lifting, Pilates, spinning, yoga, aerobic video workouts, instruction on use of cardio equipment and fitness assessments using technology. This course also includes a \$30 fee that is required for YMCA use.

## **FITNESS WALKING • 915**

Grade Level: 10, 11, 12 Length: Semester

(Prerequisite: Completion of Physical Education graduation requirement)

This class develops endurance through daily class time walks of increasing lengths and speeds. Walks will be taken around the local community and community trails. Testing of fitness levels with state of the art technology, individual fitness portfolios and personal fitness plans will be developed. This course provides students with the knowledge and skills needed for lifelong wellness and physical fitness. The class meets daily.

## **SPORTS MEDICINE/ATHLETIC TRAINING**

**1 • 919 2 • 920**

Grade Level: 10, 11, and 12 Length: Semester

Students learn the fundamentals of athletic training, including prevention, care, and treatment of athletic injuries. Specific emphasis is placed on the areas of anatomy and physiology, first aid, strapping techniques, nutritional guidelines, basic injury identification and treatment, vocabulary, and record keeping. Fee: \$20 Sports Med II emphasizes athletic injury assessment techniques and focuses on practical application of skills in a lab oriented design.

## **HEALTH • 921**

Grade Level: 11, 12 Length: Semester

(Note: This course is required for graduation.)

The course includes in-depth coverage of the following: the body systems, physical fitness, nutrition, stress management, drug and alcohol abuse prevention, and human sexuality including HIV. The following topics will also be covered: accessing and evaluating health information via the internet, communicable and non-communicable diseases, domestic and dating violence, depression, mental disorders, and suicide. Course material in this class may contain readings or discussions in which topics of a sexual nature are presented.